

EASTERN CAPE DEPARTMENT OF HEALTH

TENDER

UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD

TENDER No: SCMU3-P26/27-0369-H0

NAME OF COMPANY: _____

CSD Nr: _____

CRS Nr (CIDB): _____

CLOSING DATE: _____ TIME: 11:00 am

TABLE OF CONTENTS

THE TENDER	3
PART T1 – TENDERING PROCEDURES	4
T1.1 TENDER NOTICE AND INVITATION TO TENDER	5-7
T1.2 TENDER DATA	8-17
PART T2 RETURNABLE DOCUMENTS	18
T2.1 LIST OF RETURNABLE DOCUMENTS	19-20
SBD 1 – PART A INVITATION TO BID	21
SBD 1 – PART B TERMS AND CONDITIONS FOR BIDDING	22
COMPULSORY ENTERPRISE QUESTIONNAIRE (A)	23
SBD 4 – DECLARATION OF INTEREST	25-26
SBD 6.1 – PREFERENCE POINT CLAIM	27-30
PROOF OF REGISTRATION ON THE NATIONAL TREASURY CENTRAL SUPPLIER DATABASE	31
VALID COPY OF CIDB CERTIFICATE	32
PROTECTION OF PERSONAL INFORMATION: CONSENT (POPIA)	33-35
T2.2 DOCUMENTS REQUIRED FOR EVALUATION OF FUNCTIONALITY	36
T2.2.1 TENDERER'S EXPERIENCE	37
T2.2.2 ORGANOGRAM AND EXPERIENCE OF KEY PERSONNEL	38
T2.2.3 PRELIMINARY PROGRAMME	44
T2.2.4 LOCAL ECONOMIC DEVELOPMENT (LED) STRATEGY	47
T2.2.5 RISK PROFILE (CAPACITY AND LITIGATION)	49
THE CONTRACT	51
PART C1 – AGREEMENTS AND CONTRACT DATA	52
PART C1.1 – FORM OF OFFER AND ACCEPTANCE	53
PART C1.1 A – J	57-68
PROJECT REFERENCE FORMS - 2	69
PROJECT REFERENCE FORMS – 3	72
PART C1.1 K-S	74-82
PART C1.2 CONTRACT DATA	83
PART C1.3 DISPUTE RESOLUTION MECHANISM	98
C1.3 CIDB ADJUDICATOR'S AGREEMENT	99
OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION	101
PART C2 – PRICING DATA	128
PART C2.1 – PRICING INSTRUCTION	129
PART C2.3 – BILLS OF QUANTITIES	131
PART C3 – SCOPE OF WORKS	140
PART C4 – SITE INFORMATION	143
ANNEXURE 1 – DETAILED DESIGN DRAWINGS	145
ANNEXURE 2 – SPECIFICATIONS	146
ANNEXURE 3 – DISTRIBUTION TECHNOLOGY STANDARDS AND MATERIAL LIST	157
ANNEXURE 4 – WAYLEAVES	159
ANNEXURE 5- CALCULATION OF PENALTIES	160

THE TENDER

PART T1
TENDERING PROCEDURES

PART T1.1: TENDER NOTICE AND INVITATION TO TENDER

T1.1 Tender Notice and Invitation to Tender

The Eastern Cape Department of Health invites contractors with the CIDB grading of **2EP OR Higher** in the following Class of works **Electrical Infrastructure (EP)** to tender for "Tender No: **SCMU3-P26/27-0369-H0**, **UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD** for a **3-months** contract. The contract will be based on the JBCC Edition 6.2 of 2018, and the Eastern Cape Department of Health will enter a contract with the successful tenderer.

Bid documents are downloadable free of charge from the website (e-tenders.gov.za). Bid documents will be available on **24 July 2026**. No bid documents will be available at departmental offices.

There will be a compulsory virtual briefing meeting on **08 July 2026**. The purpose of the meeting is to introduce bidders to the site and to have a brief overview of the scope of works.

Queries relating to the issue of these documents may be addressed in writing to through email: Noluthando.mjuluki@echealth.gov.za _ **Technical enquiries:** may be addressed in writing to Ms. Noluthando Mjuluki Noluthando.mjuluki@echealth.gov.za

The closing time for receipt of tenders by the ECDOH is **11:00am** on **14 July 2026**. Tender will be open in public.

It is the responsibility of the tenderer/s to ensure that bid documents /proposals are submitted on or before closing time and the correct location as the department will not take responsibility of wrong delivery. Tenderers using courier services for delivery of their bid documents must ensure the delivery is at the correct place / location and time as the department will not be held responsible for wrong delivery. Not delivered to Departmental officials. The Department will not accept responsibility if bids received by officials are not timely deposited in the Bid Box.

Tenders may only be submitted on the tender documentation that is issued. Tenderers must be registered on the National Treasury Central Supplier Data Base and proof of registration must be submitted with the proposal (<https://secure.csd.gov.za>).

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

B. TENDER SUBMISSIONS:

Bids must be submitted electronically, named "**Tender No:SCMU3-P26/27-0369-H0**": "**UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD**"

At www.etenders.gov.za

C. BID EVALUATION:

This bid will be evaluated in Two (2) phases as follows:

Phase One: Functionality and Compliance, responsiveness to the bid rules and conditions

Phase Two: Price and Specific Goals.

PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT (PPPFA) AND PREFERENTIAL PROCUREMENT REGULATIONS 2022 POINTS WILL BE AWARDED AS FOLLOWS:

Maximum points on price	-	80 points
Maximum points for Specific Goals	-	20 points
Maximum points	-	100 points

C. BID SPECIFICATIONS, CONDITIONS AND RULES

1. The minimum specifications, other bid conditions and rules are detailed in the bid document under Tender Data
2. The Department of Health SCM policy applies.
3. Tender validity period is **12 weeks**

D. ENQUIRIES WITH REGARD TO THIS ADVERT MAY BE DIRECTED TO:

SCM RELATED ENQUIRIES

Email Address: Noluthando.mjuluki@echealth.gov.za

TECHNICAL ENQUIRIES

Ms. Noluthando Mjuluki

Email Address: Noluthando.mjuluki@echealth.gov.za

FOR COMPLAINTS, FRAUD, & TENDER ABUSE:

Call: 0800 701 701

PART T1.2: TENDER DATA

T1.2 Tender Data

The conditions of tender are the latest edition of SANS 10845-3, *Standard conditions of tender*. SANS 10845-3 makes several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the provisions of SANS 10845-3 *and* as contained in **Annexure C of Standard for Uniformity in Construction Procurement (Board Notice 423 of 2009 Government Gazette No 42622 of August 2019)**. Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies

Clause number	Tender Data
3.1	The Employer is the Department of Health - Eastern Cape
3.2	The tender documents issued by the employer comprise the following documents: THE TENDER Part T1: Tendering procedures T1.1 - Tender notice and invitation to tender T1.2 - Tender data Part T2: Returnable documents T2.1 - List of returnable documents T2.2 - Returnable schedules THE CONTRACT Part C1: Agreements and Contract data C1.1 - Form of offer and acceptance C1.2 - Contract data C1.3 - Dispute Resolution Mechanism Part C2: Pricing data C2.1 - Pricing Instructions C2.2 - Bills of Quantities Part C3: Scope of work C3 - Scope of work Part C4: Site information C4 - Site information
3.3	The tender documents issued by the employer comprise the documents listed on the contents page
3.4	The employer's agent is: Name: MJT Consulting Address: 62 Bonza Bay Road Tel No: 0833 521906 Fax: 086 556 3754 Email Address: lengoaf@gmail.com
3.5	The language for communications is English
3.6	The competitive negotiation procedure shall be applied.
4	Tender's obligations
4.1	Joint Venture is Allowed
4.2	The employer will compensate the tender as follows JBCC Edition 6.2 of 2018 The employer will not compensate the tenderer for any costs incurred in attending interviews or making any submissions in the office of the employer.
4.3	It is the responsibility of the tenderer to check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.
4.4	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.
4.5	Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are incorporated into the tender documents by reference.

4.6	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.
4.7	The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list. Tender documents will not be made available at the clarification meeting
4.8	Seek clarification <i>Request clarification of the tender documents, if necessary, by notifying the employer at least 7 (Seven) working days before the closing time stated in the tender data.</i>
4.9	Tenderers are required to state the rates and currencies in Rands. Include in the rates, prices, and the tendered total of the prices (if any), all duties, taxes which the law requires to be paid [except value added tax (VAT)], and other levies payable by the successful tenderer, that are applicable 14 days before the closing time stated in the tender data. Show the VAT payable by the employer separately as an addition to the tendered total of the prices. 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. State the rates and prices in monetary value of the contract unless otherwise instructed in the tender data.
4.10	Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer or to correct errors made by the tenderer and ensure that all signatories to the tender offer initial all such alterations. Do not make erasures using masking fluid.
4.11	Main tender offers are not required to be submitted together with alternative tenders.
4.12	No alternative tender offers will be considered
4.13.1	Parts of each tender offer communicated on paper shall be submitted as an original. Submit a) the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with a translation of any documentation in a language other than the language of communication established in 3.5, and b) the parts communicated electronically by the employer of its agents on paper format with the tender.
4.13.2	Sign the original and all copies of the tender offer where required in terms of the tender data. State in the case of a joint venture which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer. NOTE The employer holds all authorized signatories liable on behalf of the tenderer.
4.13.3	A tender security in the amount of N/A is required and shall remain valid for a period not exceeding N/A days after the closing date for tender offers. The form of the tender security shall not differ substantially from the sample provided in Annex D of SANS 10845-3.
4.13.4	The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are: Bids must be submitted electronically, named "Tender No: SCMU3-P26/27-0369-H0 .": " UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD" "closing time and date: 10 July .2026 at 11:00am
4.13.5	The tenderer is required to submit with his tender the following certificates: 1) a copy of the CSD report showing, amongst other things, that tax matters of the service provider are in order the South African Revenue Services. In the case of a Joint Venture/Consortium/Sub-contractors each party must submit a separate CSD report showing, amongst other things, that tax matters of the service provider are in order the South African Revenue Services. 2) CIDB Grading certificate or CRS number.
4.13.6	A two-envelope procedure will not be required.
4.13.7	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted. The tenderer accepts that the employer does 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.
4.14	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. 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. Proof of posting shall not be accepted as proof of delivery. Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of the standard conditions of tender in this part of SANS 10845 apply equally to the extended deadline.
4.15.1	The tender offer validity period is 12 weeks 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. 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. Extend the period of the tender security, if any, to cover any agreed extension requested by the employer.																
4.15.2	<p>Placing of contractors under restrictions / withdrawal of tenders</p> <p>If any tenderer who has submitted a tender offer or a contractor who has concluded a contract has, as relevant: withdrawn such tender or quotation after the advertised closing date and time for the receipt of submissions; after having been notified of the acceptance of his tender, failed or refused to commence the contract; had their contract terminated for reasons within their control without reasonable cause; offered, promised or given a bribe in relation to the obtaining or the execution of such contract; acted in a fraudulent, collusive or anti-competitive or improper manner or in bad faith towards the Provincial Government; or, made any incorrect statement in any affidavit or declaration with regard to a preference claimed and is unable to prove to the satisfaction of the Provincial Government that the statement was made in good faith or reasonable steps were taken to confirm the correctness of the statements, such tenderer/s may be placed under restriction from tendering with the state.</p> <p>Procedures are outlined in the EC SCM Policy for Infrastructure procurement and Delivery Management and also on cidb Inform Practice Note #30. Excerpts of the policy can be availed on request of any interested tenderer.</p>																
4.16	Access shall be provided for the following inspections, tests and analysis: N/A																
4.17	the preferred tenderer will be required to submit an approved insurer undertaking to provide the Performance Bond / Guarantee / Surety / Security to the format and/or standard as per DPWI policy																
5	Employer's undertakings																
5.1	The Employer will respond to requests for clarification received up to Seven (7) working days before the tender closing time. If, as a result of the issuing of addenda, it is necessary to extend the closing time stated in the tender data, grant such extension and notify all respondents accordingly.																
5.2	The employer shall issue addenda until Seven (7) working days before tender closing time.																
5.3	Tenders will be opened immediately after the closing time for tenders at 11:00am hours .																
5.4	Do not disclose to tenderers, or to any 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.																
5.5	<p>Determine, after opening and before detailed evaluation, whether each tender offer that was properly received</p> <p>a) complies with the requirements of the standard conditions of tender in this part of SANS 10845, b) has been properly and fully completed and signed, and c) is responsive to the other requirements of the tender documents.</p> <p>A responsive tender is one that conforms to all the terms, conditions, and scope of work of the tender documents, without material deviation or qualification. A material deviation or qualification is one which, in the employer's opinion, would</p> <p>d) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the scope of work, e) significantly change the employer's or the tenderer's risks and responsibilities under the contract, or f) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.</p> <p>Reject a non-responsive tender offer, and do not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.</p>																
5.6	<p>Arithmetical errors, omission and discrepancies</p> <p>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.</p> <p>For Vat related discrepancies, National and Provincial Treasury prescripts in relation to VAT procedures apply.</p>																
5.7.1	<p>The financial offer will be reduced to a comparative basis using the Tender Assessment Schedule.</p> <p>Table F.1: Formulae for calculating the value of A</p> <table border="1"> <thead> <tr> <th>Formula</th> <th>Comparison aimed at achieving</th> <th>Option 1^a</th> <th>Option 2^a</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Highest price or discount</td> <td>$A = \left(1 + \frac{(P - P_m)}{P_m} \right)$</td> <td>$A = P / P_m$</td> </tr> <tr> <td>2</td> <td>Lowest price or percentage commission / fee</td> <td>$A = \left(1 - \frac{(P - P_m)}{P_m} \right)$</td> <td>$A = P_m / P$</td> </tr> <tr> <td>a</td> <td colspan="3">P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.</td> </tr> </tbody> </table>	Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a	1	Highest price or discount	$A = \left(1 + \frac{(P - P_m)}{P_m} \right)$	$A = P / P_m$	2	Lowest price or percentage commission / fee	$A = \left(1 - \frac{(P - P_m)}{P_m} \right)$	$A = P_m / P$	a	P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.		
Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a														
1	Highest price or discount	$A = \left(1 + \frac{(P - P_m)}{P_m} \right)$	$A = P / P_m$														
2	Lowest price or percentage commission / fee	$A = \left(1 - \frac{(P - P_m)}{P_m} \right)$	$A = P_m / P$														
a	P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.																
5.7.2	The Employer applies the two-stage process of evaluating tenders, namely functionality then Price/ BBBEE component, using the preferential procurement mechanism of the 80/20 rule.																

PHASE 1: FUNCTIONALITY

- All tenders duly lodged as specified in this document will be examined to determine compliance with tender requirements and conditions. Tenders with deviations from the requirements/ conditions, will be eliminated from further consideration.
- Firstly, the assessment of functionality will be done in terms of the evaluation criteria and minimum threshold. A tender will be disqualified if it fails to meet the minimum threshold for functionality.
- Thereafter, only the qualifying Tenders will be evaluated in terms of the 80/20 preference mechanism, where 80 points will be used for price and 20 points are allocated to Broad Based Black Economic Empowerment, in line with the grading per the Specific Goals in place at the time of the advertisement.

Elimination of Proposals on Grounds of Functionality

Scoring Functionality threshold for this Tender is 70%. Failure to meet this threshold will lead to disqualification of the Tenderer.

The following preference point system is applicable to this Tender:

The 80/20 system for requirements with a Rand value equal to or above R30,000 up to R50 Million (all applicable taxes included) as stipulated in the Preferential Procurement Policy Framework Act (Act Number 5 of 2000) of the GGDA's Procurement Policies and Procedures

ADJUDICATION USING POINT SYSTEM

The Tenderer obtaining the highest number of total points will be awarded the contract.

- Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- Points scored must be rounded off to the nearest 2 decimals places.
- In the event that two or more Tenders have scored equal total points, the successful Tender must be the one scoring the highest number of preference points for Specific Goals.
- However, the functionality is part of the evaluation process and in the event that two or more Tenders have scored equal points including preference points for Specific Goals, the successful Tender must be the one scoring the highest score for functionality.
 - Should two or more Tenders be equal in all respects, the award shall be decided by the drawing of lots.

RESPONSIVENESS TO THE BID REQUIREMENTS AND RULES

Bidders' proposals must meet the following minimum requirements and supporting documents must be submitted with the completed bid document electronically at the closing date and time. Failure to comply will automatically eliminate the bid for further consideration:

1. Bid Document (This Document must be submitted in its original format)
2. Bids which are late, incomplete, unsigned or submitted by facsimile or electronically, will not be accepted.
3. Bidder must be registered with CIDB in the correct grading and class of works as per the tender notice and requirements. The status on CIDB must be active. It is the responsibility of the bidder to keep the status on CIDB active throughout bidding process (advert till award stage).
4. Bidders must be a legal entity OR partnership or consortia.
5. Form of offer and Acceptance (fully completed and signed).
6. SBD 4- Declaration of Interest (fully completed and signed). **SBD4 must be duly completed and signed. Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract, such interest must be disclosed on question 2.3.1.**
7. Incomplete or unsigned or poorly completed forms **SBD 4 will lead to a bidder being declared non-responsive.**
8. Compulsory Enterprise Questionnaire (Completed and signed)
9. If the offer is "Vat Inclusive", the VAT registration number of service provider must be indicated and if a service provider is not a VAT Vendor but include VAT in its prices, the successful service provider will be given 21 days to register as a VAT Vendor with SARS, after the issuing of an appointment letter. If a bidder is a VAT vendor/registered, the bidder is required to explicitly state the VAT amount. VAT vendors must include VAT at 15% in the bid offer(s).
10. If the Bid Sum (amount in words) differ from the Bid Sum (amount in figures), the Bid Sum (amount in words) will govern.

11. Resolution to Sign (must be completed, if applicable).
12. Declaration of Employees of the State or other State Institutions.
13. Only one offer per bidder is allowed and alternative offers will not be considered. If more than one offer is received, none of the offers will be considered.
14. Attendance of compulsory briefing meeting (Proof will be drawn from the Microsoft Teams attendance register by SCM)
15. **Bidders must submit a minimum of three (3)** written contactable references for projects successfully completed in the past (clearly indicating client name, contract value, contract term, and contact person, contact details). This is not an elimination factor, but important for the department to make a decision. Unless it is used for Quality/functionality Points.
16. **Submission of key staff:** It is a compulsory requirement that the tenderer provides all the specified key staff. Omission of even one of them will render the tender as non-responsive

Other Conditions of bid (Non eliminating unless expressly mentioned in the document):

1. The bidder must be registered on the Central Supplier Database (CSD) prior the award
2. All bidders' tax matters must be in order prior to award. Bidders' tax matters will be verified through CSD. In cases where the bidder's status is found non-compliant, the bidder will be granted 7 days to correct the status. **A bidder that fails to rectify its tax matters with SARS will be declared non-responsive.**
3. The bidder has duly completed and signed the **SBD 1**, and **SBD 6.1**.
4. Bidders need to complete and sign **SBD 6.1** to claim points for specific goals. **Failure will lead to the non-awarding of points for specific goals.**
5. The bidder must also list all projects where there are pending litigations or litigations that have been concluded. The form for this is also attached in Annexure I.
6. The Department will contract with the successful bidder by signing a formal contract.
7. This tender will be awarded as a whole. All trades listed in the Bills of Quantities or Pricing schedule must be priced for (except provisional sums and allowances which also need to be added to the total), failure to do so will increase the commercial risk of the bid and may lead to elimination or passing over of the bidder.
8. Wherever a brand name is specified in this document (i.e. specifications, pricing schedule, bill of quantities or anywhere), the department requires an item similar/equivalent or better.
9. Protection of personal information: Consent (POPIA).
10. The successful tenderer (after being informed) will be required to bring along an unsigned copy of the form of contract to be signed by parties (e.g. JBCC Edition 6.2 of 2018).
11. **Bidders must submit a list of current projects that are not yet completed on Annexure H**
12. **Bidders must submit a list of their litigation history on Annexure I**
13. **Proof of Office Address:** Submission of a municipal account or valid lease agreement in the name of the tendering entity proving a physical business address
14. **Project Specific Local Economic Development (LED) Plan:** Submission of a completed returnable schedule detailing the strategy for engaging local sub-contractors and suppliers from within the Enoch Mjijima Local Municipality

PHASE TWO: EVALUATION POINTS ON PRICE AND SPECIFIC GOALS

The **80/20 preference point system** shall be applied for the purposes of this bid as per the requirements of the *Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000)* and Specific Goals/Preferential Procurement Regulations 2022

Criteria	Points
POINTS ON PRICE	80
SPECIFIC GOALS	20
TOTAL	100

The 90/10 preference point system for acquisition of services, works for goods exceeding Rand value of R50 million:

(a) The following formula must be used to calculate the points for price in respect of tenders (including price quotation) with a Rand value equal to, or above R 30 000 and up to Rand value of R 50 000 000 (all applicable taxes included):

The financial offer will be scored using the following formula:

$$A = (1 - (P - P_m))$$

P_m

The value of W₁ is:

	<p>1) 90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R50 000 000 or</p> <p>2) 80 where the financial value inclusive of VAT of one or more responsive tender offers have a value that equals or is less than R 50 000 000.</p> <p>Allocation of Points for Locality Ownership:</p> <ul style="list-style-type: none"> - Within Enoch Mgijima Local Municipality 8 - Within Chris Hani District Municipality 6 - Within Eastern Cape Province 4 - Outside the Eastern Cape 0
5.7.3	The procedure for the evaluation of responsive tenders is Method 2 (Administrative Responsiveness, price and Specific Goals, Risk Assessment)
5.8	<p>Tender offers will only be accepted if:</p> <ul style="list-style-type: none"> a) the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za/) unless it is a foreign supplier with no local registered entity b) the tenderer is in good standing with SARS according to the Central Supplier Database. Bidders must submit a CSD no. or tax status compliance pin. c) the preferred tenderer will be required to submit an approved insurer undertaking to provide the Performance Bond / Guarantee / Surety / Security to the format and/or standard within 21 days after the appointment. d) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; e) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector. f) the tenderer has not: <ul style="list-style-type: none"> i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect. g) the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.
	<ul style="list-style-type: none"> h) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest that may impact the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract; i) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; j) The tenderer undertakes to maximize the sourcing of building material or infrastructure input material from Eastern Cape based suppliers or manufacturers. k) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely. l) The tenderer has duly completed and signed the Declaration Certificate for Local Production and Content and Local Content Declaration: Summary Schedule and submitted the documents at the closing date and time of the bid. m) the tender has offered a market-related offer. If the offer is believed not to be market related, the department through its Supply Chain Management bid committees will attempt to negotiate the offer with identified bidder/s to a reasonable amount. Bidders are not allowed to increase their tender offers during this process. n) A Resolution of signatory form has been completed and signed by director/s or a letter bearing a letterhead of the tenderer has been attached (specific to this bid) to the bid submission; it must be duly signed by all directors and submitted the bid. Only a duly authorized official can sign the bid. o) NOTE: The amount reflected on the Form of Offer and Acceptance takes precedence over any other total amount indicated elsewhere in bidder's tender submission. If the Form of Offer and Acceptance has no value or figure, the bidder will be regarded as having made no offer. p) The department reserves the right not to award the bid to the most favourable tenderer if the Risk Assessment Matrix reveals a High Risk profile regarding current commitments (over-extension) or a history of litigation that suggests a high probability of project failure or reputational damage to the ECDOH.
5.9	The number of paper copies of the signed contract to be provided by the employer is 1.
	<p>The additional conditions of tender are:</p> <ul style="list-style-type: none"> • Wherever a brand name is specified in this document (i.e., specifications, pricing schedule, bill of quantities or anywhere), the department requires an item similar/equivalent or better.

T.2.1	<p>A. List of returnable documents</p>
1	<p>Documentation to demonstrate eligibility to have tenders evaluated i.e. List all documentation to demonstrate eligibility to have a submission evaluated.</p> <ul style="list-style-type: none"> • All required returnable schedules
2	<p>Returnable Schedules required for tender evaluation purposes</p> <p>The tenderer must fully and appropriately complete and sign the following returnable schedules as relevant:</p> <ul style="list-style-type: none"> • Record of Addenda to Tender Documents • Proposed amendments and qualifications • Compulsory Enterprise Questionnaire (In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted). • SBD 1, 4, 6.1, Declaration of Local Production and Local Content. • Protection of personal content: Consent (POPIA) • Form of Offer and Acceptance • Complete priced Bills of Quantities, including Final Summary • Tenderer's experience • Organogram and Experience of key personnel • Preliminary program • Valid Tax Clearance Certificate and/or a tax compliance status (TCS) Pin • Letter of good standing from COIDA • Occupational Health and Safety Officer's Certificate • Appointment Letters for current projects • Completion letters-Projects Completed in the past 5 years • Company registration documents (CIPC Documents) • Certified ID copies of members/directors/Shareholders or Owners • List of sub-contractors • Plant and Equipment • Proof of Local office • Local economic development (LED) strategy <ul style="list-style-type: none"> ○ Local Labour engagement plan (a project specific document detailing the number and roles of local people to be hired) ○ Local Material Sourcing Plan (A signed undertaking identifying specific Eastern Cape suppliers or manufacturers the contractor intends to use for the MV and LV upgrades.
3	<p>Other documents required for tender evaluation purposes</p> <p>The tenderer must provide the following returnable documents:</p> <ul style="list-style-type: none"> • A CSD Report for a contractor with valid and correct information. • A letter of good standing from the Compensation Fund or a licensed insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act 1993 (Act No. 130 of 1993)
4	<p>Returnable Schedules that will be used for tender evaluation purposes and be incorporated into the contract</p> <p>The tenderer must complete the following returnable documents:</p> <ul style="list-style-type: none"> • A duly completed form of Offer and Acceptance (and any revision of prices if there are any). • JV Agreement if JV submission • Certified ID copies of Members/directors/Shareholders or owners • Company registration Documents (CIPC documents)
5	<p>Only authorized signatories may sign the original and all copies of the tender offer where required.</p> <ul style="list-style-type: none"> • In the case of a ONE-PERSON CONCERN submitting a tender, this shall be clearly stated. • In the case of a COMPANY submitting a tender, include a copy of a resolution by its board of directors authorizing a director or other official of the company to sign the documents on behalf of the company. • In the case of a CLOSE CORPORATION submitting a tender, include a copy of a resolution by its members authorizing a member or other official of the corporation to sign the documents on each member's behalf. • In the case of a PARTNERSHIP submitting a tender, all the partners shall sign the documents, unless one partner or a group of partners has been authorized to sign on behalf of each partner, in which case proof of such authorization shall be included in the Tender.

	<ul style="list-style-type: none"> In the case of a JOINT VENTURE/CONSORTIUM submitting a tender, include a resolution of each company of the joint venture together with a resolution by its members authorizing a member of the joint venture to sign the documents on behalf of the joint venture. <p><u>Accept that failure to submit proof of authorization to sign the tender shall result in the tender offer being regarded as non-responsive.</u></p>
6	<p>Information and data to be completed in all respects</p> <p>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 nonresponsive.</p>
7	<p>Canvassing and obtaining of additional information by tenderers</p> <p>The Tenderer shall not make any attempt either directly or indirectly to canvass any of the Employer's officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon.</p> <p>The Tenderer shall not make any attempt to obtain particulars of any relevant information, other than that disclosed at the opening of tenders.</p>
8	<p>Prohibitions on awards to persons in service of the state</p> <p>The Employer is prohibited to award a tender to a person -</p> <ol style="list-style-type: none"> who is in the service of the state; or <ol style="list-style-type: none"> if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or a person who is an advisor or consultant contracted with the Department or municipal entity. <p>In the service of the state means to be -</p> <ol style="list-style-type: none"> a member of:- <ol style="list-style-type: none"> any municipal council; any provincial legislature; or the National Assembly or the National Council of Provinces; a member of the board of directors of any municipal entity; an official of any Department or municipal entity; an employee of any national or provincial department; provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999); a member of the accounting authority of any national or provincial public entity; or an employee of Parliament or a provincial legislature. <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
9	<p>Awards to close family members of persons in the service of the state</p> <p>Accept that the notes to the Employer's annual financial statements must disclose particulars of any award of more than R2000 to a person who is a spouse, child, or parent of a person in the service of the state (defined in clause 8 above), or has been in the service of the state in the previous twelve months, including -</p> <ol style="list-style-type: none"> the name of that person; the capacity in which that person is in the service of the state; and the amount of the award. <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
10	<p>Respond to requests from the tenderer</p> <p>The employer will respond to requests for clarification up to 7 (seven) working days before the tender closing time.</p>
11	<p>Opening of tender submissions</p> <p>Tenders will be opened immediately after the closing time for tenders</p>
12	<p>Scoring quality / functionality: N/A</p>

13	<p>Cancellation and re-invitation of tenders</p> <p>An organ of state may, prior to the award of the tender, cancel the tender if-</p> <ul style="list-style-type: none"> (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or (b) funds are no longer available to cover the total envisaged expenditure; or (c) no acceptable tenders are received. (d) Tender validity period has expired. (e) Gross irregularities in the tender processes and/or tender documents. (f) No market related offer received (after attempts of negotiation processes) <p>Where applicable, the decision to cancel the tender will be published in the CIDB website and in the Tender Bulletin or the media in which the original tender invitation as advertised.</p>
14	Dispute resolution mechanism will be done through the Adjudication route.
15	<p>The department must when be acting against the tenderer or person awarded the contract on a fraudulent basis, considers the provisions of Regulation 14:</p> <p>The remedies provided for in Preferential Procurement Regulations 2022 do not prevent an institution from instituting remedies arising from any other prescripts or contract.</p>
16	<p>Where the employer terminates the contract due to default of the contractor in whole or in part, the employer may decide to: a) Refer the breach in contract to the cidb for investigation as a breach of the cidb Code of Conduct in terms of the cidb Regulations; or b) may impose a restriction penalty on the contractor in terms of Section 14 of the Preferential Procurement Regulations. The outcomes of such investigations in terms of both the cidb Regulations and the Preferential Procurement Regulations may prohibit the contractor from doing business with the public sector for a period not exceeding 10 years.</p>

PART T2
RETURNABLE DOCUMENTS

PART T2.1: LIST OF RETURNABLE DOCUMENTS

T2.1 List of Returnable Documents

The tenderer must complete the following returnable documents:

1 Returnable Schedules required for bid evaluation purposes

- Compulsory enterprise questionnaire (In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted).
- Record of addenda issued (Only if addenda is issued)
- Certificate of authority for joint ventures (Only where the tender/ quotation is submitted by a joint venture)

2 Other documents required for bid evaluation purposes

The tenderer must complete the following returnable documents

- Valid Tax Clearance Certificate and/or a Tax Compliance Status (TCS) PIN.
- Proof of Registration with the CIDB grade 2EP Or higher
- Proof of registration on CSD
- Occupational Health and Safety Officer Certificate
- Letter of Good standing from COIDA
- References and Completion certificates on similar projects
- Proof of Office address (municipal account/Lease agreement)
- Project specific LED plan (Local Economic Development Strategy)

3 Returnable Schedules that will be incorporated into the contract

- Particulars of Electrical Contractor
- Standard Submission Documents (SBD, 1 & 4)
- Certified ID Copies of Directors
- Joint Venture Agreement if JV Submission

4. Documents Required for Evaluation of Functionality (add risk evaluation for)

QUALITY CRITERIA	MAX. NUMBER OF POINTS
Tenderers Experience	35
Organogram and Experience of Key Staff Personal	30
Preliminary Programme	20
Local Economic Development Strategy	10
Risk Profile (Capacity and Litigation)	5
	100

PART A

SBD 1

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE EASTERN CAPE DEPARTMENT OF HEALTH					
BID NUMBER:		CLOSING DATE:		CLOSING TIME:	11:00
DESCRIPTION:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT					
DEPARTMENT OF HEALTH, GLOBAL LIFE CENTRE, SCM UNIT,C/O PHATHLO, AVENUE AND 63 (OPPOSITE ENGINE GARAGE), BHISHO					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Ms. Noluthando Mjuluki		CONTACT PERSON	Ms. Noluthando Mjuluki	
TELEPHONE NUMBER	040 608 9501		TELEPHONE NUMBER	040 608 9501	
FACSIMILE NUMBER			FACSIMILE NUMBER		
E-MAIL ADDRESS	noluthando.mjuluki@echealth.g ov.za		E-MAIL ADDRESS	noluthando.mjuluki@echealth.g ov.za	
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					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, COMPLETE QUESTIONNAIRE BELOW]	
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	<input type="checkbox"/> YES <input type="checkbox"/> NO				
DOES THE ENTITY HAVE A BRANCH IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO				
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO				
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO				
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	<input type="checkbox"/> YES <input type="checkbox"/> 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 BELOW.					

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 IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).
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 VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE.”

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:
(Proof of authority must be submitted e.g. company resolution)

DATE:

Compulsory Enterprise Questionnaire

The following particulars must be furnished. In the case of a joint venture, **separate** enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

..

Section 2: VAT registration number, if any:

.

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

a) Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

b) Section 6: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

<input type="checkbox"/>	A member of any municipal council	<input type="checkbox"/>	An employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the public finance management act, 1999 (act 1 of 1999)
<input type="checkbox"/>	A member of any provincial legislature	<input type="checkbox"/>	A member of an accounting authority of any national or provincial public entity
<input type="checkbox"/>	A member of the National or National Council of Provinces	<input type="checkbox"/>	An employee of parliament or a provincial legislature
<input type="checkbox"/>	A member of the board of directors of any municipal entity	<input type="checkbox"/>	
<input type="checkbox"/>	An official of any municipality or municipal entity	<input type="checkbox"/>	

***If any of the above boxes are marked, disclose the following:**

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

	A member of any municipal council		An employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the public finance management act, 1999 (act 1 of 1999)
	A member of any provincial legislature		A member of an accounting authority of any national or provincial public entity
	A member of the National or National Council of Provinces		An employee of parliament or a provincial legislature
	A member of the board of directors of any municipal entity		
	An official of any municipality or municipal entity		

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed _____ Date.....

Name _____ Position.....

Enterprise. Name.....

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise?

Employed by the state?

YES/NO

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2

Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:

3 DECLARATION

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

3.1 I have read and I understand the contents of this disclosure;

3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;

3.3 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 consortium² will not be construed as collusive bidding.

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

² 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.

- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 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.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 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.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature	Date
.....
Position	Name of bidder

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

I. GENERAL CONDITIONS

I.1 The following preference point systems are applicable to invitations to tender:

- 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).

I.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

The applicable preference point system for this tender is the **80/20** preference point system.

The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

I.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

I.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

I.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

I.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all

- applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 PREFERENCE POINT SYSTEMS

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

80/20

$$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where

- Ps = Points scored for price of tender under consideration
 Pt = Price of tender under consideration
 Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

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

80/20

$$Ps = 80 \left(1 + \frac{Pt - Pmax}{Pmax} \right)$$

Where

- Ps = Points scored for price of tender under consideration
 Pt = Price of tender under consideration
 Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table I below as may be supported by proof/documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 preference point

system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

- (b) any other invitation for tender, that either the 80/20 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Historically Disadvantaged Individuals Ownership	20% (4)	
Women Ownership	10% (2)	
Youth Ownership	10% (2)	
Disability Ownership	10% (2)	
Military Veterans Ownership	10% (2)	
Locality Ownership (Tiered Scoring)	40% (8)	
- Within Enoch Mgijima Local Municipality	8	
- Within Chris Hani District Municipality	6	
- Within Eastern Cape Province	4	
- Outside the Eastern Cape	0	
TOTAL	100% (20)	

- a) Service providers must submit proof of its Specific Goals points claimed / status of contributor.
- b) The Specific Goals supporting documents required to verify claimed points may inline with the specified requirements include:
- Historically Disadvantaged Individuals Ownership: Proof of ownership (CIPRO certificate) with id no.
 - Women Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no.
 - Youth Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no.
 - Disability Ownership: Proof of ownership (CIPRO certificate) with valid medical documentary proof.
 - Military Veterans Ownership: Proof of ownership (CIPRO certificate) with valid proof of veteran status.
 - Locality Ownership: Proof of business address (municipal account or valid lease agreement) in the name of the tendering entity. "Points will be awarded based on the proximity of the physical business address to the site (Tarkastad) as defined in Table 1

above. The address on the municipal account or lease agreement must match the name of the tendering entity”

- Updated CSD report

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Public Company
- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I 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 I 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 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
- (a) disqualify the person from the tendering 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 tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted 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, if deemed

..... SIGNATURE(S) OF BIDDER(S)	
SURNAME AND NAME:
DATE:
ADDRESS:

**PROOF OF REGISTRATION ON THE NATIONAL TREASURY
CENTRAL SUPPLIER DATABASE**

(ATTACH FULL REPORT HERE)

VALID COPY CIDB CERTIFICATE
(ATTACH CERTIFICATE HERE)

***PROTECTION OF PERSONAL INFORMATION: CONSENT
(POPIA)***

PROTECTION OF PERSONAL INFORMATION: CONSENT (POPIA)

The introduction of The Protection of Personal Information Act (POPIA) ensures the regulation of personal information through its entire life cycle of collection, transfer, storing and deletion.

As part of its business activities, the Eastern Cape Department of Health obtains and requires access to personal data from a wide range of internal and external parties, including without limitation bidders who respond to requests for proposals that are published by the Eastern Cape Department of Health from time to time. The Eastern Cape Department of Health confirms that it shall process the information disclosed by Bidders for the purpose of evaluating and subsequently awarding/appointing a successful Bidder.

The Eastern Cape Department of Health hereby states that it does not and will never modify, amend, or alter any personal information submitted to it by a Bidder. Not unless directed to do so by an order of court, the Eastern Cape Department of Health does not disclose or permit the disclosure of any personal information to any Third Party without the prior written consent of the owner of the information.

Similarly, Bidders will from time-to-time access and be seized with information of a personal nature pertaining to the Eastern Cape Department of Health. Some of the information may because of legislative compliances be available in the public domain, whilst some is uniquely provided to bidders in pursuit of procurement or other business-related activities. In this regard, the Eastern Cape Department of Health requires that Bidders which receive or have access to its personal information, process any such information in a manner compliant with the requirements of the POPIA.

AGREEMENT

1. The Eastern Cape Department of Health and the Bidder (the Parties) agree and undertake that upon obtaining and having access to personal information relating to either of them, they shall always ensure that:
 - a) They process the information only for the express purpose for which it was obtained.
 - b) Information is provided only to designated and authorized personnel who require the personal information to carry out the Parties' respective obligations in terms of the Procurement processes.
 - c) They will introduce, and implement all reasonable measures ensure the protection of all personal information from unauthorized access and/or use.
 - d) They have taken appropriate measures to safeguard the security, integrity, and authenticity of all personal information in its possession or under its control.
 - e) The Parties agree that if personal information will be processed for any other purpose other than the one for which the accessing of the information was intended, explicit written consent will be obtained prior to the execution of such reason.
 - f) The Parties shall carry out regular assessments to identify all reasonably foreseeable internal and external risks to the interception of personal information in its possession or under its control and shall implement and maintain appropriate controls in mitigation of such risks.
2. The Parties agree that they will promptly return or destroy any personal data in their possession or control which belongs to the other Party once it no longer serves the purpose for which it was collected, subject to any legal retention requirements. The information will be destroyed in such a manner that it cannot be reconstructed to its original form, linking it to any individual or organization.
3. Bidder's Obligations
 - a) The Bidder is required to notify the Information Officer of Eastern Cape Department of Health, in writing as soon as possible after it becomes aware of or suspects any loss, unauthorized access or unlawful use of any of the Eastern Cape Department of Health's personal information.
 - b) The Bidder shall, at its own cost, promptly and without delay take all necessary steps to mitigate the extent of the loss or compromise of personal data.
 - c) The Bidder shall be required to provide the Eastern Cape Department of Health with details of the persons affected by the compromise and the nature and extent of the compromise, including details of the identity (if known) of the unauthorized person who may have accessed or acquired the personal data.

- d) The Bidder undertakes to co-operate with any investigation relating to security breach which is carried out by or on behalf of Eastern Cape Department of Health.

On behalf of the Bidder:

.....
Signature

.....
Date

.....
Position

.....
Name of the Bidder

On behalf of the Client:

.....
Signature

.....
Date

.....
Position

.....
Name of Client Representative

T2.2 Documents Required for Evaluation of Functionality

T2.2.1 Tenderers Experience

T2.2.1 TENDERER'S EXPERIENCE (35 POINTS)

The experience of the tendering entity as opposed to the key staff members/ experts, in projects of **SIMILAR TYPE AND SCALE (i.e. Similar Experience)** over the last five years, will be evaluated.

Contact details of clients of the relevant projects must also be provided.

It is **compulsory** that the tenderer completes the attached "Tenderers Experience Schedule "G", and the client reference sheets - failing which, zero points will be awarded

Tenderer's Experience			
The tenderer shall submit proof that they have successfully completed an MV Overhead Open Wire Reticulation construction projects as per Eskom's Eastern Cape Operating Unit requirements. Tenderers are to provide/list Overhead Open wire MV power line reticulation projects carried out in the last 5 years including their completion certificates and corresponding references on the letterhead of the client(s) those projects were undertaken			
	Years of company experience (Company or Directors) (5)		
	Years of company experience" (5 points) is measured from the date of incorporation for the legal entity, provided its primary business has been electrical infrastructure or years of experience of the directors in Mv Overhead lines construction and maintenance		
	5 years and above experience	5	35
	3 to 4 years experience	3	
	1 to 2 years experience	1	
	Less than 1 year experience	0	
	Relevant project experience (15)		
	Tenderer listed a minimum of 3 similar projects	15	
	Tenderer listed 1-2 similar projects	5	
	Tender listed no similar projects	0	
	Past Performance on Similar Projects (15) (Completion certificates (8), References (7))		
	Completion certificates		
	The tenderer submitted a minimum of 3 completion certificates corresponding to listed projects	8	
	The tenderer submitted 1 -2 completion certificates corresponding to listed projects	3	
	Tenderer did not submit completion certificates corresponding to listed projects	0	
	Reference letters		
	The tenderer submitted a minimum of 3 reference letters corresponding to listed projects	7	
	The tenderer submitted 1-2 reference letters corresponding to listed projects	3	
	The tenderer did not submit reference letters corresponding to listed projects	0	

T2.2.2 Organogram And Experience Of Key Personnel

T2.2.2 ORGANOGRAM AND EXPERIENCE OF KEY PERSONNEL (30 Points)

The experience of assigned staff member/s in relation to the scope of work will be evaluated from the following points of view:

- 1) Submission of an Organogram indicating the following levels of resources as a minimum: Construction Manager, Electrical Line Mechanic/Linesman, Safety, health, Environmental and Safety Officer, Construction Supervisor, Crane Operator, Installation Electrician. The years of experience in their current position is to be indicated in the Organogram.
- 2) A certified copy of the relevant qualification is to be submitted, failing which, zero points will be awarded for qualifications.
- 3) The skills and experience of the assigned staff are of similar nature in the operational area which the staff have been resourced.
- 4) Failure to submit CV's or incomplete CV's of the personnel listed in the scoring below will be scored zero.

CVs of the construction team of **not more than 2 pages each** should be attached to this schedule. Each CV should be structured as per the template contained within the Tender document located on Page 42

NOTE: TENDERERS ARE ADVISED THAT AT MINIMUM, ALL RESOURCES NEED TO COMPLY WITH ANY ONE OF THE CATEGORIES IN ORDER TO SCORE THE MAXIMUM POINTS IN ANY PARTICULAR CATEGORY.

The scoring will be as follows:

1. KEY STAFF			
<p>Certified copies of the qualifications together with CVs of proposed key personnel with experience in construction of MV Overhead Open Wire Reticulation construction projects must be submitted. The key persons need not be in the current employ of the entity at the time of submission of the RFP, but a commitment either of subcontract agreement between entity and subcontractor (person or entity) or consent between the entity and person whose CV is submitted shall be presented and signed by the proposed individual/subcontractor.</p>			
KEY STAFF	QUALIFICATION AND KEY EXPERIENCE	POINTS	WEIGHT
Construction Manager (5)	<u>Qualification</u> NHD or higher (All in Electrical) Professional Registration: PrEng/PrTech/PrTechni	6	
	5 years or more post professional registration experience	6	
	3 to 4 years post professional registration experience	4	
	1 to 2 years post professional registration experience	1	
	<1 year post professional registration experience	0	
Electrical Line mechanic/Linesman (3)	<u>Qualification</u> (NQF Level 4) or similar (SAQA Qual ID91781)	6	

			30
	5 years or more post qualification experience	6	
	3 to 4 years post qualification experience	4	
	1 to 2 year post qualification experience	1	
	<1 year post qualification experience	0	
Safety, Health, Environmental and Quality Officer (4)	Qualification Diploma or higher in safety and quality management Professional Registration: SACPCMP	4	
	5 years or more post professional registration experience	4	
	3 to 4 years post professional registration experience	2	
	1 to 2 year post professional registration experience	1	
	<1 year post professional registration experience	0	
Construction Supervisor (4)	Qualification Electrical Engineering Diploma (N6) or higher Professional Registration: Trade Test Registration Must have EOU MV Authorization (outcome 4) and ORHVS (HV04)	6	
	5 years or more post professional registration experience	6	
	3 to 4 years post professional registration experience	4	
	1 to 2 year post professional registration experience	1	
	<1 year post professional registration experience	0	
Crane Operator (4)	Qualification Valid Crane Operator License	2	
	5 years or more post license experience	2	
	1 to 4 years post license experience	1	
	<1 year post license experience	0	
Installation Electrician (4)	Qualification Electrical Engineering Diploma (N3) or higher Registration: Wireman's License (as an Installation Electrician (IE))	4	
	5 years or more post registration experience	4	
	1 to 4 years post professional registration experience	1	
	<1 year post professional registration experience	0	

Along with the submission of the Organogram specific to this Tender, Tenderers are required to submit the Key Personnel Schedule as indicated below.

KEY PERSONNEL	NAME	AGE	YEARS OF EXPERIENCE	PERIOD WITH COMPANY	HIGHEST VALUE CONTRACT HANDLED
Construction Manager					
Electrical Line Mechanic/Linesman					
Safety, Health, Environmental and Quality Officer					
Construction Supervisor					
Crane Operator					
Installation Electrician (IE)					

The undersigned, who warrants that he/ she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

NAME : _____

(Block Capitals)

SIGNATURE : _____ DATE: _____
(of person authorised to sign on behalf of the Tenderer)

The Tenderer shall complete the following table to be submitted with the Tender

CURRICULUM VITAE TEMPLATE OF KEY PERSONNEL										
DESIGNATION.....										
Name:					Date of birth:					
Profession:					Nationality:					
Formal Qualifications:										
		Qualification	From: Name of Institution			Year Obtained				
1										
2										
3										
4										
5										
Professional Registrations/ Designation:										
		Professional Registrations/ Designation	Professional Body/Council			Registration Number				
1										
2										
3										
4										
5										
Name of Current Employer (firm):					Full Time:	Yes		No		
Current Position:					Years of Experience:					
Name of Previous Employer (firm):					Full Time:	Yes		No		
Position held:					Years of Experience:					
Name of Previous Employer (firm):					Full Time:	Yes		No		
Position held:					Years of Experience:					
Name of Previous Employer (firm):					Full Time:	Yes		No		

T2.2.3 Preliminary Programme

T2.2.3 PRELIMINARY PROGRAMME (20 POINTS)

The Tenderer shall submit a detailed programme clearly decomposing the construction activities by indicating the hierarchy of activities.

The activities shall indicate the duration and the dependencies between the tasks.

In addition to construction activities, the programme is to allow and include for the following:

- Annual builders' holiday
- 15 working days for project delays such as but not limited to inclement and exceptionally inclement weather and an extension of time shall only be considered for inclement and exceptionally inclement weather beyond this Fifteen (15) working day period.

The overall project duration is **3 Months**.

For the purpose of evaluating this Tender, the tenderer is to assume the start date to be **30 Sept 2026**.

The successful tenderer will be requested to revise the programme to accommodate the shift in the start date.

NOTE: Should the tender programme exceed the project duration of 3 months (3 months including provision for anticipated project delays), the tenderer shall be scored zero points for this section.

CATEGORY	BASIS OF POINTS CALCULATION	MAX POINTS PER CATEGORY
No Response or exceed project duration	0% X 20 Points	0
The programme/ implementation plan only shows main activities with no dependencies between them and the project duration is within the project period.	20% X 20 Points	4
The programme/ implementation plan DOES NOT clearly show all activities, the dependencies between them are NOT in a logical sequence and project duration is within the project period.	40% X 20 Points	8
The programme/ implementation plan clearly shows all activities, the dependencies between them are in a logical sequence and project duration is within the project period.	60% X 20 Points	12
The programme/ implementation plan clearly shows all activities, the dependencies between them are in a logical sequence and project duration is within the project period. In addition, the durations of each activity are clear indicated and is appropriate and realistic.	80% X 20 Points	16

<p>The programme/ implementation plan clearly shows all activities, the dependencies between them are in a logical sequence and project duration is within the project period.</p> <p>In addition, the durations of each activity are clear indicated and is appropriate and realistic and the programme clearly indicates the project's critical path.</p>	100% X 20 Points	20
---	------------------	----

T2.2.4 Local Economic Development (LED) Strategy (10 points)

Local Economic Development (LED) Strategy	
This section formalizes the socio-economic requirements for the Enoch Mgijima Local Municipality and the Eastern Cape Province. (10 Points)	
10	
Local Labour (5)	
Points are awarded based on a signed Labour Engagement Plan committing to hire from the local area	
Commitment to hire 30% or more of the total workforce (casual/general labour) from within the Enoch Mgijima Local Municipality	5
Commitment to hire 15% to 29% of the workforce locally (Eastern Cape):	3
No local labour commitment or commitment below 15%	0
Local Material Sourcing (5)	
Points are awarded based on a signed Local Material Sourcing Plan	
Detailed plan specifying Eastern Cape-based suppliers for at least 50% of construction and infrastructure input materials:	5
Detailed plan for 20% to 49% provincial sourcing	3
No local sourcing plan or sourcing primarily from outside the Eastern Cape	0

T2.2.5 Risk Profile (Capacity and Litigation)

Risk Profile's Risk Assessment Matrix					
This allocation splits the 5 points between Commitment & Capacity (3 Points) and Litigation History (2 Points) ,				5	
RISK CATEGORY	LOW RISK (Favorable)	MEDIUM RISK (Cautionary)	HIGH RISK (Pass-over)		MAX POINTS
A: Commitment & Capacity (Schedule H)	Tenderer has 0–2 active projects. Key personnel confirmed available.	Tenderer has 3–5 active projects. Resources are stretched; mitigation plan provided.	Tenderer has >6 active projects		3
Points Awarded	3 Points	1.5 Points	0 Points		
B: Litigation History (Schedule I)	No litigation involving the entity or directors in the past 10 years.	Resolved commercial disputes (payment delays, etc.) with no findings of fraud.	History of H&S negligence, fraud/corruption, or JBCC Clause 29.0 defaults.		2
Points Awarded	2 Points	1 Point	0 Points		

THE CONTRACT

PART C1
AGREEMENTS AND CONTRACT DATA

PART C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1- Form of Offer and Acceptance

Annex C *(normative)*

FORM OF OFFER AND ACCEPTANCE

Project title	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

OFFER

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:
UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD

R.....

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable 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) (or other suitable wording)

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

Name

Capacity

for the tenderer

(Name and address of organization)

Name and signature

of witness Date

ACCEPTANCE

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 the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as 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.

The tenderer shall within 3 weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any securities, bonds, guarantees, proof of 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 these 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 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.¹

Signature

Name

Capacity

for the Employer

(Name and address of organization)

Name and signature

of witness Date

Schedule of Deviations

- 1 Subject _____
- Details _____
- 2 Subject _____
- Details _____
- 3 Subject _____
- Details _____
- 4 Subject _____
- Details _____

By the duly authorized representatives signing this agreement, 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/ quotation 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.

¹As an alternative, the following wording may be used:

Notwithstanding anything contained herein, this agreement comes into effect two working days after the submission by the employer of one fully completed original copy of this document including the schedule of deviations (if any), to a courier-to-counter delivery / counter-to-counter delivery / door-to counter delivery /door-to-door delivery /courier service (delete that which is not applicable), provided that the employer notifies the tenderer of the tracking number within 24 hours of such submission. Unless the tenderer (now contractor) within seven working days of the date of such submission 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

A

RECORD OF ADDENDA TO BID DOCUMENTS

PROJECT TITLE		UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD	
Tender No:			
I / We confirm that the following communications received from the Eastern Cape Department of Health before the submission of this tender offer, amending the tender documents, have been taken into account in this bid offer: (Attach additional pages if more space is required)			
Item	Date	Title or Details	No. of Pages
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Attach additional pages if more space is required.

Signed _____ Date _____
Name _____ Position _____
Tenderer _____

B

PROPOSED AMENDMENTS AND QUALIFICATIONS

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

PROJECT TITLE	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

Page	Clause /Item	Proposal

The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct

Signed _____ Date _____
Name _____ Position _____
Enterprise name _____

C

RESOLUTION FOR SIGNATORY

A: CERTIFICATE OF AUTHORITY FOR SIGNATORY

Signatory for companies shall confirm their authority hereto by attaching a duly signed and dated copy of the relevant resolution of the board of directors to this form or on company letter head.

An example is given below:

“By resolution of the board of directors passed at a meeting held on _____

Mr/Ms _____, whose signature appears below, has been duly authorised to

sign all documents in connection with the tender for Contract No. _____

and any Contract which may arise there from on behalf of (Block Capitals) _____

SIGNED ON BEHALF OF THE COMPANY: _____

IN HIS/HER CAPACITY AS: _____

DATE: _____

SIGNATURE OF SIGNATORY: _____

WITNESSES:

DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	

If you cannot complete this form, attach a separate sheet (in a company letter head, project specific and signed by all directors):

Failure to submit proof of authorization to sign the tender shall result in the tender offer being regarded as non-responsive

D

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, 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.		
PROJECT TITLE	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD	
Tender No:		
NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner:		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....
..... .		Signature. Name Designation.....

Failure to submit proof of authorization to sign the tender shall result in the tender offer being regarded as non-responsive

E**SCHEDULE OF PROPOSED SUBCONTRACTORS**

PROJECT TITLE	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	
<p>We notify you that it is our intention to employ the following Subcontractors for work in this contract. The Subcontractors will all be CIDB registered and their CIDB Registration number shall be submitted below.</p> <p>If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.</p> <p>We confirm that all subcontractors who are or to be contracted are registered on Central Supplier Database (CSD).</p>	

No.	Name and address of proposed Subcontractor	Nature and extent of work	Year completed	Value	Contact details
1					
2					
3					

The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct

Signed

Date

Name

Position

Enterprise name

E
CAPACITY OF THE BIDDER

PROJECT TITLE	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	
<p>Certified copies of the qualifications together with CVs of key personnel with experience in MV Overhead Open Wire Reticulation construction projects must be submitted. The key persons need not be in the current employ of the entity at the time of submission of the tender, but a commitment either of subcontract agreement between entity and subcontractor (person or entity) or consent between the entity and person whose CV is submitted shall be presented and signed by the proposed individual/subcontractor.</p>	

Quantity / No. of Resources	Categories of Employee - Key Personnel (part of Business Enterprise)	Professional Registration No.	Date of Employment
	Construction Manager NHD or Higher (in Electrical) Professional Registration: PrEng/PrTech/PrTechni		
	Electrical line mechanic/Linesman (LV&MV) (NQF level 4) or similar (SAQA Qual ID91781 Must have specific competency in MV & LV line construction		
	Construction Safety, Health, Environmental and Quality Officer (SHEQ) Diploma or bachelor's degree in safety management Professional Registration: SACPCMP		
	Construction Supervisor Electrical Engineering Diploma (N6) or higher Professional Registration: Trade Test Registration Must have ECOU Authorization and ORHVS (HV04)		
	Crane Operator Valid Crane Operator's License And competency working near live lines		
	Installation Electrician Electrical Engineering Diploma (N3) or higher Registration: Wireman's Licence		

<p>The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct.</p>			
Signed:	Date
Name:	Position
Enterprise Name:			

Note: It is a compulsory requirement that the tenderer provides all the specified key staff. Omission of even one of them will render the tender as non-responsive.

G

RELEVANT PROJECT EXPERIENCE – COMPLETED PROJECTS

Tenderers must submit a max one-page description of at least three MV Overhead open Wire reticulation construction project successfully completed in the past 5 years

Attach a Completion Certificate for each of the projects provided.

The description of each project must include the following information:

1. Essential introductory information:
 - 1.1. Name of project.
 - 1.2. Name of client.
 - 1.3. Contact details of client.
 - 1.4. Contact details (including telephone numbers and email addresses) of currently contactable references.
 - 1.5. The period during which the project was performed, and also, if this is different, the period during which the tenderer's team members were contracted.
 - 1.6. Cost of works and/or contract value (making it clear in broad terms what this cost/value purchased, and to what extent (if any) this cost/value was part of a larger project budget or programme budget).

NO.	NAME OF PROJECT.	NAME OF CLIENT.	CONTACT DETAILS OF CLIENT.	PROJET PERIOD	PROJECT VALUE	DATE COMPLETED
1						
2						
3						
4						
5						
The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct.						

Signed.....

Date.....

Name.....

Position.....

Enterprise name.....

H

RELEVANT PROJECT EXPERIENCE – CURRENT PROJECTS

Tenderers must submit a max one-page description of at least three projects under construction/ on hold/ just handed over/ towards completion (if they exist) **Attach an Appointment letter for each of the projects provided.**

The description of each project must include the following information:

2. Essential introductory information:
 - 2.1. Name of project.
 - 2.2. Name of client.
 - 2.3. Contact details of client.
 - 2.4. Contact details (including telephone numbers and email addresses) of currently contactable references.
 - 2.5. The period during which the project was performed, and if this is different, the period during which the tenderer's team members were contracted.
 - 2.6. Cost of works and/or contract value (making it clear in broad terms what this cost/value purchased, and to what extent (if any) this cost/value was part of a larger project budget or programme budget).

NO.	NAME OF PROJECT	NAME OF CLIENT.	CONTACT DETAILS OF CLIENT.	PERIOD OF PROJECT.	PROJECT VALUE	STAGE OF PROJECT
1						
2						
3						
4						
5						
6						
7						

Attach a separate page to address this issue (the above table is just for reference purposes).

Signed

Date

.....

Name

Position

.....

Enterprise name

.....

<p>The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct.</p>

SCHEDULE OF TENDERER'S LITIGATION HISTORY

- The tenderer shall list below details of any litigation with which the tenderer (including its directors, shareholders or other senior members in previous companies) has been involved with any organ of state or state department within the last ten years. The details must include the year, the litigating parties, the subject matter of the dispute, the value of any award or estimated award if the litigation is current and in whose favour the award, if any, was made. The tenderer must specifically declare if any of the listed litigations relate to: (a) Breach of the CIDB Code of Conduct, (b) Occupational Health and Safety fatalities, or (c) Non-performance resulting in a JBCC Clause 29.0 termination.

Failure to disclose these details will be regarded as a material misrepresentation and shall lead to the immediate disqualification of the tenderer and potential restriction from state business.

NO.	NAME OF CLIENT.	OTHER LITIGATING PARTY	BRIEF DETAILS OF DISPUTE	PROJECT VALUE	DATE RESOLVED OR STATUS OF LITIGATION
1					
2					
3					
4					
5					

Signed

Date

.....

Name

Position

.....

Enterprise name

.....

J
Project Reference Forms – 1

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value nature and complexity or higher that was completed successfully by the tenderer.

I, _____ (name and surname) of _____ (company name) declare

that I was the Project Manager on the following building construction project successfully executed by _____ (name of tenderer):

Project name: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

A. Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the principal agent, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance / time management / programming						
2. Quality of workmanship						
3. Resources: Personnel						
4. Resources: Plant						
5. Financial management / payment of subcontractors / cash flow, etc						
TOTAL						

B. Would you consider / recommend this tenderer again:

YES	NO

C. Any other comments: _____

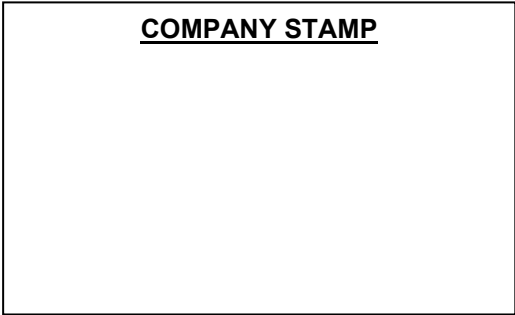
D. My contact details are:

Telephone: _____ Cellphone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 2024.

Signature of principal agent



NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer

Date

Project Reference Forms - 2

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value nature and complexity or higher that was completed successfully by the tenderer.

I, _____ (name and surname) of _____ (company name) declare

that I was the Project Manager on the following building construction project successfully executed by _____ (name of tenderer):

Project name: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

A. Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the principal agent, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance / time management / programming						
2. Quality of workmanship						
3. Resources: Personnel						
4. Resources: Plant						
5. Financial management / payment of subcontractors / cash flow, etc.						
TOTAL						

B. Would you consider / recommend this tenderer again:

YES	NO

C. Any other comments: _____

D. My contact details are:

Telephone: _____ Cell phone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 2023.

Signature of principal agent



NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer

Date

Project Reference Forms – 3

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value nature and complexity or higher that was completed successfully by the tenderer.

I, _____ (name and surname) of _____ (company name) declare

that I was the Project Manager on the following building construction project successfully executed by _____ (name of tenderer):

Project name: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

A. Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the principal agent, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance / time management / programming						
2. Quality of workmanship						
3. Resources: Personnel						
4. Resources: Plant						
5. Financial management / payment of subcontractors / cash flow, etc.						
TOTAL						

B. Would you consider / recommend this tenderer again:

YES	NO

C. Any other comments: _____

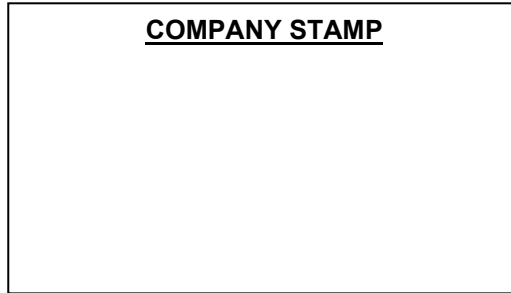
D. My contact details are:

Telephone: _____ Cellphone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 2023.

Signature of principal agent



NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer

Date

K

VALID TAX CLEARANCE CERTIFICATE AND/OR A TAX COMPLIANCE STATUS (TCS) PIN

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

Tax Clearance Certificate and/or Tax Compliance Status (TCS) PIN for Tenderers

The tenderer is to affix to this page:

A valid Tax Clearance Certificate and/or Tax Compliance Status (TCS) Pin issued by the South African Revenue Services (SARS) in the name of the Tendering Entity indicating the Trading Name

Note: Failure to affix such a certificate will result in this tender not being further considered for the award of the contract

L

LETTER OF GOOD STANDING FROM COIDA

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

Copy of a letter of Good Standing issued by the Department of Labour, in accordance with the Compensation for Occupational Injuries and Diseases Act (COIDA). –must be valid at the time of close of tender and a valid certificate must be produced at the time of award if the certificate expires between close of tender and award

Tender offers will only be accepted if the tenderer is in good standing with the compensation fund. Failure to affix a valid Letter of Good Standing will result in the tender being declared non-responsive

M

OCCUPATIONAL HEALTH AND SAFETY OFFICER'S CERTIFICATE

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

The tenderer is to affix to this page: Occupational Health and Safety certificate

Note: Failure to affix such a certificate will result in this tender not being further considered for the award of the contract.

N

COMPLETION CERTIFICATES/LETTERS-PROJECTS COMPLETED BY THE TENDERER IN THE PAST 5 YEARS

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

The tenderer is to affix to this page the completion certificates corresponding to the projects listed under table in "G" for completed similar projects in the past 5 years.

Note: Failure to affix such letters will result in this tender not being further considered for the award of the contract.

0

COMPANY REGISTRATION DOCUMENTS (CIPC DOCUMENTS)

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

The tenderer is to affix to this page the CIPC company registration documents.

Note: Failure to affix such letters will result in this tender not being further considered for the award of the contract.

P

CERTIFIED ID COPIES OF MEMBERS/DIRECTORS/SHAREHOLDERS OR OWNERS

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

The tenderer is to affix to this page the certified copies of members/directors/shareholders or owners' Identity document

Note: Failure to affix such letters will result in this tender not being further considered for the award of the contract.

Q

SCHEDULE OF PLANT AND EQUIPMENT

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

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.

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

<u>Quantity (Owned or leased)</u>	<u>Description, size, capacity , etc</u>

(b) Details of major equipment that will be hired or acquired for this contract if awarded

<u>Quantity hired</u>	<u>Description, size, capacity , etc</u>

R
PROOF OF OFFICE ADDRESS

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

The tenderer is to affix to this page a valid municipal account or a valid lease agreement

Note: Failure to affix such letters will result in this tender not being further considered for the award of the contract.

S

LOCAL ECONOMIC DEVELOPMENT (LED) STRATEGY

Project title:	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Tender No:	

The tenderer is to affix to this page the following:

- **Local labour engagement plan**
- **Local material sourcing plan**

Note: Failure to affix such letters will result in this tender not being further considered for the award of the contract.

PART C1.2: CONTRACT DATA

The Joint Building Contracts Committee® - NPC
CONTRACT DATA
For use by ORGANS OF STATE and other PUBLIC SECTOR BODIES
Principal Building Agreement
Edition 6.2 - May 2018

A PROJECT INFORMATION

A1.0 Works [1.1]

Project name	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
Reference number	
Works description	Refer to document C3 – Scope of Work

A2.0 Site [1.1]

Erf / stand number	Refer to document C4 – Site Information
Township / Suburb	Tarkastad, Eastern Cape.
Site address	Refer to document C4 – Site Information
Local authority	Enoch Mgijima Local Municipality

A3.0 Employer [1.1]

Official Name of Organ of State / Public Sector Body	Eastern Cape Department of Health		
Business registration number	N/A		
VAT/GST number	N/A		
Country	South Africa		
Employer's representative: Name	Ms. Noluthando Mjuluki		
E-mail	Noluthando.mjuluki@ehealth.gov.za		
Mobile number	Telephone number	040 608 9501	
Postal address	Dukumbana Building, Independence Avenue, P.O.Box X0038	Postal Code	5605
Physical address	Dukumbana Building, Independence Avenue, P.O.Box X0038	Postal Code	5605

A4.0 Principal Agent [1.1]

Name	MJT Consulting		
Legal entity of above	MJT Consulting	Contact person	Fang Lengoasa
Practice number	-	Telephone number	0833 521906
		Mobile number	083 3521 1906
Country	South Africa	E-mail	lengoaf@gmail.com
Postal address		Postal Code	5200
Physical address	62 Bonza Bay Road	Postal Code	5200

A5.0 Agent [1.1]

Discipline	Electrical Engineer		
Name	MJT Consulting		
Legal entity of above	MJT Consulting	Contact person	Fang Lengoasa
Practice number	-	Telephone number	0833 521906
		Mobile number	0833 521906
Country	South Africa	E-mail	lengoaf@gmail.com
Postal address		Postal Code	5200
Physical address	62 Bonza Bay Road	Postal Code	5200

B CONTRACT INFORMATION**B 1.0 Definitions [1.1]**

Bills of quantities: System/Method of measurement	Standard System of Measuring Building Work (latest edition) as amended by the General Preambles for Trades 2017 (ASAQS) and PW371-A
---	--

B 2.0 Law, regulations and notices [2.0]

Law applicable to the works, state country [2.1]	Republic of South Africa
---	---------------------------------

B 3.0 Offer and acceptance [3.0]

Currency applicable to this agreement [3.2]	South African Rand
---	---------------------------

B 4.0 Documents [5.0]

The original signed agreement is to be held by the principal agent [5.2], if not, indicate by whom	Employer
Number of copies of construction information issued to the contractor at no cost [5.6]	Three (3)

Documents comprising the agreement	Page numbers
The JBCC® Principal Building Agreement, Edition 6.2 May 2018	1 to 30
The JBCC® Principal Building Agreement - Contract Data for Organs of State and other Public Sector Bodies, Edition 6.2 May 2018	1 to 18
The JBCC® General Preliminaries for use with the JBCC® Principal Building Agreement, Edition 6.2 May 2018	1 to 30

EMPLOYER TO INSERT DRAWING DETAILS ON THIS TABLE BELOW

Contract drawings – description	Number	Revision	Date
Martjie Venter Power Supply Upgrade	ECDOH-MVH-01	00	03 March 2026
DDT Drawings (Assembly, Structure and Foundation)	Different DDT Drawing Numbers	Variety	11 March 2026

B 5.0 Employer's Agents [6.0]

Authority is delegated to the following agents to issue contract instructions and perform duties for specific aspects of the works [6.2]
Principal Agent

Principal agent's and agents' interest or involvement in the works other than a professional interest [6.3]
None

Supplementary insurance [10.1.2; 10.2]			With a deductible not exceeding 5% of each and every claim
Public liability insurance [10.1.3; 10.2]			
Removal of lateral support insurance [10.1.4; 10.2]			
Other insurances [10.1.5]			
Yes/ No?	No	If yes, description 1	
Hi Risk Insurance [10.1.5.1]			
Yes/ No?	No	If yes, description 2	

B 7.0 Obligations of the employer [12.1]

Existing premises will be in use and occupied [12.1.2]		Yes / No?	Yes
If yes, description	Live Health Facility		
Restriction of working hours [12.1.2]		Yes / No?	No
If yes, description			
Natural features and known services to be preserved by the contractor [12.1.3]		Yes / No?	No
If yes, description			
Restrictions to the site or areas that the contractor may not occupy [12.1.4]		Yes / No?	Yes
If yes, description	Work areas and restricted areas shall be defined at Site Handover		
Supply of free issue [12.1.10]		Yes / No?	No
If yes, description			

B 8.0 Nominated subcontractors [14.0]

Yes / No?	No	If yes, description of specialisation
		Specialisation 1
		Specialisation 2
		Specialisation 3
		Specialisation 4
		Specialisation 5
		Specialisation 6
		Specialisation 7
		Specialisation 8
		Specialisation 9

B 9.0 Selected subcontractors [15.0]

Yes / No?	No	If yes, description of specialisation
		Specialisation 1
		Specialisation 2
		Specialisation 3
		Specialization 4
		Specialization 5
		Specialisation 6
		Specialisation 7
		Specialisation 8
		Specialisation 9
		Specialisation 10

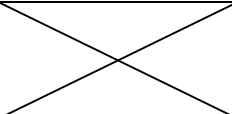
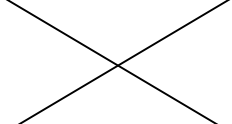
B 10.0 Direct contractors [16.0]

Yes / No?	No	If yes, description of extent of work
		Extent of work [12.1.11]
		Extent of work [12.1.11]
		Extent of work [12.1.11]
		Extent of work [12.1.11]
		Extent of work [12.1.11]

B 11.0 Description of sections [20.1]

Section 1	Construction of the Medium Voltage Power supply upgrade to 200kVA
Section 2	

B 12.0 Possession of site [12.1.5], practical completion [19.0; 20.0] and penalty [24.0]

Practical completion for the works as a Whole	Intended date of possession of the site Refer B17.0 [12.1.5; 12.2.22]	Period for inspection by the principal agent [19.3]	The date for practical completion shall be the period as indicated below from the date of possession of the site by the contractor [12.2.7; 24.1]	Penalty for late completion [24.1]
		working days	Period in months	Penalty amount per calendar day (excl. tax)
				R 0.11/R100 of Contract amount

or where **sections** are applicable: **(Applicable)**

Practical completion of a section of the works	Intended date of possession of the site Refer B17.0 [12.1.5; 12.2.22]	Period for inspection by the principal agent [19.3]	The date for practical completion shall be the period as indicated below from the date of possession of the site by the contractor [12.2.7; 24.1]	Penalty for late completion [24.1]
		Working days	Period in months	Penalty amount per calendar day (excl. tax)
Section 1		10 Working Days	2 Calendar Months	R 0.11/R100 of Contract amount for Section 1
Section 2				
Section 3				
Section 4				
Section 5				
Section 6				
Section 7				
Section 8				
Remainder of the				

Criteria to achieve practical completion not covered in the definition of practical completion
No further Criteria

B 13.0 Defects liability period [21.0]

Extended defects liability period: Refer B17.0 [21.13]	Yes / No?	Yes
If yes, description of applicable elements	All works	

B 14.0 Payments [25.0]

Date of month for issue of regular payment certificates [25.2]	30th		
Contract price adjustment / Cost fluctuations [25.3.4; 26.9.5]	Yes / No?	No	
If yes, method to calculate			
Employer shall pay the contractor within: [25.10]	Thirty (30) calendar days		

B 15.0 Dispute resolution [30.0]

Adjudication [30.6.1; 30.10] Name of nominating body	Refer to Part C1.3 Dispute Resolution Mechanism		
Applicable rules for adjudication [30.6.2]	Adjudication in accordance with the CIDB adjudication process		
Arbitration [30.7.4; 30.10]	Yes / No?	No	

If Yes, name of nominating body	
*If No, then dispute will be referred to litigation	
Applicable rules for arbitration [30.7.5]	N/A

B 16.0 JBCC® General Preliminaries – selections

Provisional bills of quantities [B2.2]		Yes / No?	Yes
Availability of construction information – is the construction information complete? [B2.3]		Yes / No?	No
Previous work - dimensional accuracy - details of previous contract(s) [B3.1]	N/A		
Previous work - defects - details of previous contract(s) [B3.2]	N/A		
Inspection of adjoining properties - details [B3.3]	N/A		
Handover of site in stages - specific requirements [B4.1]	N/A		
Enclosure of the works - specific requirements [B4.2]	Hoarding to working areas.		
Geotechnical and other investigations - specific requirements [B4.3]	N/A		
Existing premises occupied - details [B4.5]	Yes		
Services - known - specific requirements [B4.6]	No		
Water [B8.1]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
	By employer – metered	Yes / No?	No
Electricity [B8.2]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
	By employer – metered	Yes / No?	No
Ablution and welfare facilities [B8.3]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
Communication facilities - specific requirements [B8.4]	No specific requirements		
Protection of the works - specific requirements [B11.1]	No specific requirements		
Protection / isolation of existing works and works occupied in sections - specific requirements [B11.2]	No specific requirements		
Disturbance - specific requirements [B11.5]	No specific requirements		
Environmental disturbance - specific requirements [B11.6]	No specific requirements		

B 17.0 Changes made to JBCC® documentation

Reference may be made to other documents forming part of this **agreement**

1.1 Definitions

AGREEMENT: The completed Form of Offer and Acceptance, the completed **JBCC®** Principal Building Agreement and **JBCC® contract data for organs of state and other public sector bodies, the contract drawings, the priced document** and any other documents reduced to writing and signed by the authorised representatives of the **parties**

CONSTRUCTION PERIOD: The period commencing on the date of possession of the **site** by the **contractor** and ending on the date of **practical completion**

CONTRACT DATA FOR ORGANS OF STATE AND OTHER PUBLIC SECTOR BODIES: The document listing the Organs of State and other Public Sector Bodies' requirements and the project specific information

INTEREST: The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999), calculated as simple interest, in respect of debts owing to the State, and will be the rate as determined by the Minister of Justice and Constitutional Development from time to time 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999), calculated as simple interest, in respect of debts owing by the State

PRINCIPAL AGENT: The person or entity appointed by the **employer** and named in the **contract data for organs of state and other public sector bodies**. In the event of a principal agent not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by the employer's representative as named in the **contract data for organs of state and other public sector bodies**

3.0 Offer and Acceptance

Amend 3.3 to read as follows:

This **agreement** shall come into force on the date as stated on the Form of Offer and Acceptance and continue to be of force and effect until the end of the **latent defects** liability period [22.0] notwithstanding termination [29.0] or the certification of **final completion** [21.0] and final payment [25.0]

6.0 Employer's Agents

Add the following as 6.7:

In terms of the clauses listed hereunder, the **employer** has retained its authority and has not given a mandate to the **principal agent**. The **employer** shall sign all documents in relation to clauses 4.2, 14.1.2, 14.1.4, 14.4.1, 14.6, 23.1, 23.2, 23.3, 23.7, 23.8, 26.1, 26.7, 26.12 and 28.4

9.0 Indemnities

9.2.7: Add the following to the end of the first sentence: "... due to no fault of the **contractor**"

10.0 Insurances

Add the following as 10.1.5.1:

10.1.5.1.1 Damage to the works

The contractor shall, from the date of possession of the **site** until the date of the **certificate of practical completion**, bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**, at the **contractor's** own costs

10.1.5.1.2 Injury to persons or loss of or damage to property

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property, or personal property, or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

10.1.5.1.3

It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.1.5.1.1 and 10.1.5.1.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty-one (21) **calendar days** of the date of possession of the site, but before commencement of the **works**, submit to the **employer** proof of such insurance policy, if requested to do so

10.1.5.1.4

The **employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** default of his obligations as set out in 10.1.5.1.1; 10.1.5.1.2 and 10.1.5.1.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

11.0 Securities

Amend 11.10 to read as follows:

There shall be no lien or right of retention held by any **contractor** in respect of the works executed on **site**

12.0 Obligations of the Parties

Amend 12.1.5 to read as follows:

Give possession of the **site** to the **contractor** within ten (10) **working days** of the contractor complying with the terms of 12.2.22

12.2.2: Not applicable

Add the following as 12.2.22:

Within fifteen (15) **working days** of the date of the **agreement** submit to the **principal agent** an acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)

19.0 Practical Completion

19.5: Delete the words "subject to the **contractor's** lien or right of continuing possession of the **works** where this has not been waived"

21.0 Defects Liability Period and Final Completion

Add the following as 21.13:

The ninety (90) **calendar days** defects liability period for the **works** [21.1] is replaced with a period of three hundred and sixty-five (365) **calendar days** in respect of the listed applicable elements

25.0 Payment

25.7.5: Not applicable

25.10: Delete the words “and/or **compensatory interest**”

25.14.2: Not applicable

27.0 Recovery of Expense and/or Loss

27.1.5: Not applicable

29.0 Termination

Add the following after 29.1.3: or where ...

29.1.4: The **contractor's** estate has been sequestered, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

29.1.5: The **contractor** has engaged in corrupt or fraudulent practices in competing for or in executing the contract

C TENDERER'S SELECTIONS

C 1.0 Security [11.0]

Guarantee for construction: Select Option A or B		Option:	
Option A	Payment reduction of 10% of the value certified in the payment certificate		
Option B	Fixed construction guarantee of 5% of the contract sum and a payment reduction of 5% of the value certified in the payment certificate		
Guarantee for payment by employer [11.5.1; 11.10]		Not Applicable	
Advance payment, subject to a guarantee for advance payment [11.2.2; 11.3]		Not Applicable	

C 2.0 Contractor's annual holiday periods during the construction period

Year 1 contractor's annual holiday period	start date		end date	
Year 2 contractor's annual holiday period	start date		end date	
Year 3 contractor's annual holiday period	start date		end date	

C 3.0 Payment of preliminaries [25.0]

Contractor's selection: Select Option A or B		Option:	
Where the contractor does not select an option, Option A shall apply			

Payment methods

Option A	The preliminaries shall be paid in accordance with an amount prorated to the value of the works executed in the same ratio as the amount of the preliminaries to the contract sum , which contract sum shall exclude the amount of preliminaries . Contingency sum(s) and any provision for cost fluctuations shall be excluded for the calculation of the aforesaid ratio
Option B	The preliminaries shall be paid in accordance with an amount agreed by the principal agent and the contractor in terms of the priced document to identify an initial establishment charge, a time-related charge and a final dis-establishment charge. Payment of the time-related charge shall be assessed by the principal agent and adjusted from time to time as may be necessary to take into account the rate of progress of the works

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations

C 4.0 Adjustment of preliminaries [26.9.4]

Contractor's selection: Select Option A or B	Option:	
---	----------------	--

Where the contractor does not select an option, Option A shall apply

Provision of particulars

The **contractor** shall provide the particulars for the purpose of the adjustment of **preliminaries** in terms of his selection. Where completion in sections **is** required, the **contractor** shall provide an apportionment of **preliminaries** per **section**

Option A	An allocation of the preliminaries amounts into Fixed, Value-related and Time-related amounts as defined for adjustment method Option A below, within fifteen (15) working days of the date of acceptance of the tender
Option B	A detailed breakdown of the preliminaries amounts within fifteen (15) working days of possession of the site. Such breakdown shall include, inter alia, the administrative and supervisory staff, the use of construction equipment , establishment and dis-establishment charges, insurances and guarantees, all in terms of the programme

Adjustment Methods

The amount of **preliminaries** shall be adjusted to take account of the effect which changes in time and/or value have on **preliminaries**. Such adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Options A or B, shall preclude any further adjustment of the amount of **preliminaries** and shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**

Option A	<p>The preliminaries shall be adjusted in accordance with the allocation of preliminaries amounts provided by the contractor, apportioned to sections where completion in sections is required</p> <p>Fixed - An amount which shall not be varied</p> <p>Value-related - An amount varied in proportion to the contract value as compared to the contract sum. Both the contract sum and the contract value shall exclude the amount of preliminaries, contingency sum(s) and any provision for cost fluctuations</p> <p>Time-related - An amount varied in proportion to the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]</p>
Option B	<p>The adjustment of preliminaries shall be based on the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]</p> <p>The adjustment shall take into account the resources as set out in the detailed breakdown of the preliminaries for the period of construction during which the delay occurred</p>

Failure to provide particulars within the period stated

Option A	<p>Where the allocation of preliminaries amounts for Option A is not provided, the following allocation of preliminaries amounts shall apply:</p> <p>Fixed - Ten per cent (10%) Value-related - Fifteen per cent (15%) Time-related - Seventy-five per cent (75%)</p> <p>Where the apportionment of the preliminaries per section is not provided, the categorized amounts shall be prorated to the cost of each section within the contract sum as determined by the principal agent</p>
Option B	Where the detailed breakdown of preliminaries amounts for Option B is not provided, Option A shall apply

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) Of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations

PART C1.3: DISPUTE RESOLUTION MECHANISM

C1.3 CIDB ADJUDICATOR'S AGREEMENT

This agreement is made on the day of between:
 (name of company / organization) of
 (address) and (name of company /
 organization) of
 (address) (the Parties) and (name) of
 (address) (the Adjudicator).

Disputes or differences may arise/have arisen* between the Parties under a Contract dated and known as
 and these disputes or differences shall be/have been* referred to adjudication in
 accordance with the CIDB Adjudication Procedure, (hereinafter called "the Procedure") and the Adjudicator may be or has been requested to
 act.

* Delete as necessary

IT IS NOW AGREED as follows:

- 1 The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
- 2 The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
- 3 The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.
- 4 The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- 5 The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED by: _____
 Name: _____
 who warrants that he / she is duly
 authorized to sign for and on behalf of
 the first Party in the presence of

SIGNED by: _____
 Name: _____
 who warrants that he / she is duly
 authorized to sign for and on behalf of
 the second Party in the presence of

SIGNED by: _____
 Name: _____
 the Adjudicator in the presence of

Witness _____
 Name: _____
 Address: _____

Witness: _____
 Name _____
 Address: _____

Witness: _____
 Name: _____
 Address: _____

Date: _____

Date: _____

Date: _____

Contract Data

1	The Adjudicator shall be paid at the hourly rate of R. in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
2	The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to: (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs. (b) Telegrams, telex, faxes, and telephone calls. (c) Postage and similar delivery charges. (d) Travelling, hotel expenses and other similar disbursements. (e) Room charges. (f) Charges for legal or technical advice obtained in accordance with the Procedure.
3	The Adjudicator shall be paid an appointment fee of R. This fee shall become payable in equal amounts by each Party within days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not* currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due in 30 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

* Delete as necessary

PROJECT SPECIFIC OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION

**ISSUED IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 and
CONSTRUCTION REGULATIONS 2014**

EASTERN CAPE DEPARTMENT OF HEALTH

PROJECT TITLE	UPGRADING OF ELECTRICITY SUPPLY TO MARTJE VENTER/TARKASTAD HOSPITAL, TARKASTAD
BID NO	
LOCATION	TARKASTAD- CHRIS HANI DISTRICT

INDEX

KEY ROLE PLAYERS

LIST OF ABBREVIATIONS

DEFINITIONS

KEY REFERENCES

SCOPE OF WORK

1 PREAMBLE

1.1 Purpose of the Occupational Health & Safety Specification

1.2 Implementation of the Project Specific Occupational Health & Safety Specification

1.3 Requirements at Tender Stage

2 GENERAL REQUIREMENTS

2.1 Summary of Risks identified during Design

3 OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

3.1 Structure and Organization of H&S Responsibilities

3.1.1 Application for a Construction Work Permit

3.1.2 HEALTH AND SAFETY PLAN FRAMEWORK

3.2 Appointment of Competent Site Personnel

3.2.1 Construction Supervision

3.2.2 Construction Health and Safety Officer

3.3 Health and Safety Representatives and H&S meetings

3.4 Appointment of Competent Contractors

4 GENERAL RISK MANAGEMENT

4.1 Health Risks and Medical Surveillance

5.1.1 General Environmental Conditions

5.1.2 Noise Risks

5.2 Emergency Procedures

5.2.1 First Aiders and First Aid Equipment

5.2.2 Fires and Emergency Management

5.2.3 Incident Management and Compensation Claims

5.3 Personal Protective Equipment (PPE) and clothing

5.4 Occupational Health and Safety Signage

5.5 Induction of Employees and Visitors, General H&S Training

5.6 Management of plant and equipment

5.7 Working at Heights

5.8 Auditing

5.9 Communication on Site

5.1 Care of Workers on Site: Access/Egress of Site Welfare Facilities

5.11 Discipline, Alcohol and Substance Abuse

5.12 Electrical Equipment

5.13 Asbestos

5.14 Barricading and Hoarding

5.16 Traffic Management

5.17 Temporary Works - Scaffolding, support work, formwork

5.18 Biological Hazards

5.19 Excavations

5.2 Safety Rules with respect to work to Health Care Facilities

6 HEALTH AND SAFETY FILE

7 NON-CONFORMANCES

7.1 Failure to Comply with Provisions

8 MEASUREMENT AND PAYMENT

ANNEXURE A: ACKNOWLEDGEMENT OF THE H&S SPECIFICATION BY PRINCIPAL CONTRACTOR

ANNEXURE B: CLOSE OUT REQUIREMENTS

ANNEXURE C: NON-CONFORMANCES

ANNEXURE D: CONTRACTORS MONTHLY HEALTH AND SAFETY REPORT

ANNEXURE E: SAFETY SPECIFICATION AND BASELINE RISK ASSESSMENT

PROJECT SPECIFIC OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION
LIST OF ABBREVIATIONS

AIA	Approved Inspection Authority
BoQ	Bill of Quantities
CC	Compensation Commissioner
CHS	Construction Health and Safety
CHSA	Construction Health and Safety Agent
CHSO	Construction Health and Safety Officer
CR	Construction Regulations (Gazette 10113 of 07/02/2014)
ECDOH	Eastern Cape Department of Health
DMR	Driven Machinery Regulations
DoL	Department of Labour
FEMA	Federated Employers Mutual Association
GAR	General Administration Regulations
GSR	General Safety Regulations
HCSR	Hazardous Chemical Substances Regulations
HIRA	Hazard Identification Risk Assessment
H&S	Health and Safety
ER	Engineer's Representative
LI	Labour Intensive
OH	Occupational Health
OHS	Occupational Health and Safety
OHSA	Occupational Health and Safety Act No. 85 of 1993 (as amended)
OHSS	Occupational Health and Safety Specification
PA	Principal Agent
PSHSS	Project Specific Health and Safety Specification
PC	Principal Contractor
PPE	Personal Protective Equipment
SANS	South African National Standards (Authority)
SDS	Safety Data Sheet
SMME	Small, Micro, Medium Enterprise
SWP	Safe Work Procedure
PA	Principal Agent
PSP	Professional Service Provider

DEFINITIONS

The definitions used will be those set out in the Regulation Gazette No 84 of 2014 7 February 2014 with the following additions:

Client: Eastern Cape Department of Health

Client Agent: **Eastern Cape Department of Health Authorised Representative**

Designer: Means a competent person appointed by the Client as Agent to design, supervise and monitor construction on their behalf.

Hazard: Source of exposure to danger

Hazard Identification and Risk Assessment (HIRA) and Risk Control:

Health and Safety Specification – Upgrade of electrical supply to MARTJE Venter/ Tarkastad Hospital, Tarkastad.

Means a documented plan, which identifies hazards, assesses the risks and details the control measures and safe working procedures which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

Health and Safety Agent:

Means any person who acts as a representative for the Client in managing the overall health and safety work as their responsible person.

Health and Safety Plan:

Means a documented plan which answers to the Site-specific Health and Safety Specification; including all the supporting documentation that indicate how the Principal Contractor or Contractor plans to manage H&S for the duration of the Contract.

Induction Training:

Means once off introductory training on general health and safety issues given to all employees and visitors to the site before commencement of work on site.

Principal Agent:

Means a competent person appointed by the Client to design, supervise and monitor the construction on their behalf.

Risk: Means the probability or likelihood that a hazard can result in injury or damage.

Regulation/s:

Shall mean the relevant regulation/s promulgated in terms of the Occupational Health and Safety Act, No 85 of 1993.

Site: Means the area in the possession of the Principal Contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas, which are reasonably required for the activities for the Principal Contractor and approved for such use by the Designer.

The Act: Means, unless the context indicates otherwise, the Occupational Health and Safety Act, No. 85 of 1993 and Regulations promulgated thereunder, as amended.

Workplace means any premises or place where a person performs work.

KEY REFERENCES

Occupational Health and Safety Act No. 85 of 1993 and Regulations (as amended)

Compensation for Injury and Occupational Diseases Act No. 100 of 1993 (as amended)

The GCC 3rd Edition 2015

Construction Specifications & Standards 6.0 for Southern Africa.

Hans Wegelin 6th Edition 2010 SANS Code 10400 SANS10085

Compensation for Occupational Injuries and Diseases Act No. 100 of 1993 (as amended)

1. PREAMBLE

The Construction Regulations No. 37305 of 7th February 2014 requires the Client to prepare a pre-construction Health and Safety Specification, with known and possible existing risks identified.

The Eastern Cape Department of Health has a responsibility to limit its risk by ensuring a zero tolerance and better practice approach to Contractors and those affiliated to a particular project. Thus a high premium is placed on the health and safety (H&S) of Eastern Cape Department of Health stakeholders, which include its employees, patients, professional service providers, public and its physical assets. The responsibilities that the Eastern Cape Department of Health and relevant stakeholders have toward its employees are captured in but not limited to this document. The responsibilities stem from both moral, civil and a variety of legal obligations. The Principal Contractor is to take due cognisance of the above statement.

Eastern Cape Department of Health, as the Client and where there is an appointed CHS Agent on its behalf, shall provide a project specific Health & Safety Specification (PSHSS) for the project and provide the Principal Contractor/s making a bid or appointed to perform construction work for the project, or parts thereof.

1.1 Purpose of the Project Specific Health and Safety Specification (PSHSS)

The PSHSS is a performance specification to ensure that the Client and any bodies that enter into formal agreements with the Client viz. Agents, Professional Service Consultants (Engineers, Quantity Surveyors and Architects), Principal Contractors and Contractors achieve an acceptable level of OHS performance. No advice, approval of any document required by the PSHSS, such as hazard identification and risk assessments, or any other form of communication from the Client shall be construed as acceptance by the Client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements. Furthermore, there is no acceptance of liability by the Client, which may result from the Principal Contractor failing to comply with the PSHSS, i.e. the Principal Contractor remains responsible for achieving the required performance levels.

A Mandatory Agreement in terms of Section 37.2 of the OHSA will be signed between parties prior to any works commencing.

The PSHSS highlights the aspects to be implemented over and above the minimum requirements of current legislation. Requirements may be changed should new risks or issues are identified that could not have been foreseen during the design phase of the project, or during the construction phase. Any new legislation or standards (legislated or determined by Eastern Cape Department of Health that are promulgated or accepted during the contract will automatically be applied). It should be noted that this OHSS in no way relieves the Contractor of any of his responsibilities set out in the Act and Regulations.

1.2 Implementation of the Project Specific Occupational Health and Safety Specifications (PSHSS)

The project specific H&S specification (PSHSS) forms an integral part of the Contract, and PCs are required to make it an integral part of their Contracts with Contractors and Suppliers. A PSHSS will be available for each level of Contract and Contractor and must be complied with.

This specification must be read in conjunction with the OHSA, Regulations (as amended) and any other standards relating to work being done and ensure compliance thereto.

The information relating to the scope of the project, the work etc. is detailed in the tender, are to be considered when developing the H&S plan and associated documentation. The summary of risks is included in Section 2 of the PSHSS.

The OHSA S.37.2 Mandatory Agreement must be fully completed by the PC, supplied by the Client. These documents shall be deemed to form part of the returnable Contract Documents.

No work may commence without written approval of the H&S plan by the client or client's agent or the responsible person in Eastern Cape Department of Health as well as the receipt of acknowledgement for notification of construction work by the Department of Employment and Labour.

Should there be design changes, or changes in the scope of work, an amended PSHSS may be issued. Where amended PSHSS are issued, the PC will be required to ensure the resubmission of an amended H&S plan for approval. Further to this, the PC must ensure that similar information must be provided as it applies to the works to all their Contractors, within 5 working days following notification thereof. Such design changes.

The client or client's agent will visit the project as deemed necessary by the Designer to ensure compliance and limit risk. All activities on the site and all appropriate documentation will be monitored and reported on to the Client and the Designer.

Non-conformances will be issued, and penalties or work stoppage will be issued where appropriate. Communication between the client or client's agent and the PC will be through the Designer (PA) (or Client's responsible person) as determined at the commencement of the project.

a. Scope of work

Medium Voltage Overhead Power Line construction scope of work

- Plant an 11mx160 pole between the second and third existing structure before the terminal transformer (No prefix on the transformer). On this structure, mount a 2063 (Eskom Southern Region A Frame intermediate structure).
- Install isolating 3phase solid line links as per DDT1848 (3phase solid).
- On the same pole, install a take off structure as per DDT1804 and install back stay as per DDT0341.
- Cross the road with 49m span of fox conductor to a new terminal structure as per DDT1746A.
- This is to be a shared structure with existing LV ABC line.
- On this structure install DDT1140 and mount the existing LV ABC on this structure.
- Install a Take-off structure as per DDT1804
- Install 5 x intermediate structures on 11m x 160 mm diameter poles as per DDT2063.
- The 6th structure shall be constructed as a terminal structure as per DDT1746A.
- Install a take-off structure as per DDT1804 and cross the road into the hospital yard with a 34m MV span length with fox conductor.
- In the hospital yard install a terminal structure as per DDT1746A.
- On this structure install the new 200kVa transformer, pole mounted as per DDT1865 as an out of line structure. Add a pole mounted metering kiosk as per DDT0338 sheet 2 of 6.
- Install a new 200kVa meter kiosk as per DDT3236 (Detailed under item 2.7 in the specification part of this tender document)
- Install fused equipment links on this transformer structure as per DDT1849 (3Phase Fused).
- String a total route length of 450m of 3phase line with Fox conductor. This total includes the 34m and 49m road crossing spans stated earlier.
- Install a DDT1140 a structure before the transformer and treat that as a shared structure and mount the LV ABC
- Install DDT1140 at the third shared structure before the new transformer and mount the LV ABC
- Ensure that the hardware on the structures on either side of the road are specified for road crossing when procuring them.

1.4. Requirements at Tender Stage

Tenderers are required to submit a project specific H&S plan with their Tender submission. The documentation submitted will be used to assess the competence of the tenderer, as required in the CRs, therefore the information submitted needs to be complete and as close as possible to the final product.

Adequate pricing for H&S is required, and the appropriate section in the BoQ is to be completed. Failure to do so could result in the Tender being regarded as non-responsive.

A project specific H&S Plan in response to this PSHSS will be subject to approval by the client or client's Agent. This must include all supporting documentation as required to verify the H&S system:

- A declaration to the effect that the Principal Contractor has the competence and necessary resources to carry out the work safely in compliance with the Occupational Health and Safety Act and its Regulations;
- A valid Letter of Good Standing;
- Detailed technical method statements for approval by the Engineer and appropriate risk assessments and safe work procedures for approval by the Client

or Client's Agent for all high-risk items.

Further method statements are to be submitted prior to, and during the project where changes or new work is required, and the approval of the Designer/Client is required before work on that aspect or activity can commence.

The CHS Officer is to be included in production planning sessions/meetings to ensure that the appropriate risk assessments, safe work procedures and communication required are available and completed timeously. Penalties will be applied should this not be adhered to and deemed a serious offence.

2. GENERAL REQUIREMENTS

2.1 Summary of Risks identified during Design.

The intention of the summary of findings from the design baseline risk assessment is to highlight the residual risks identified during the design phase. The summary of risks provided is to point the contractor towards some risks he may not be aware of during tendering stage and while developing his formal risk assessments for the project.

The design risks and the management thereof should be included in the Principal Contractors (PC) risk assessments. Where there are other Contractors appointed to do work, the PC is to ensure that Contractors include such information in their risk assessments. The following risks are identified as applicable on this project, however they are not exhaustive and the contractor is required to prepare their own list as part of their preparation of their health and safety plan.

- Working on live site (Operational healthcare facility). Additional care will be required to prevent any injury to staff, patients and visitors and in general, efficient healthcare facility operation.
- High noise levels due to the use of power tools.
- Tripping on uneven floors, protrusions and openings
- Crane truck operation (transporting and offloading poles, transformer and associated accessories)-operating hoist/machinery.
- Working at heights (stringing overhead conductors)
- Ergonomic factors due to manual lifting by personnel
- Switching and energizing (electrocution)
- Deep Excavations
- Working in confined space
- Use of hand tools and portable equipment
- Work on or near live electrical installations.
- Tree felling and removal of vegetation
- Unknown services underground
- Waste generation on site
- Working on electrical installation
- Dust Production
- Falling objects
- Re-energizing conductors and equipment (risk of electric shock or flash over)

- Biological risks
- Environmental pollution.
- Poor communication:
- Inadequate competence of personnel.

3. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

3.1 Structure and Organization of H&S Responsibilities

3.1.1 Notification of Construction Work

Once appointed, the Principal contractor must complete the notification of construction work form as stated in the Construction Regulations. Notification of Construction Work must obtain the clients' signature for submission to the Komani regional Office of the Department of Labour. Proof of receipt and acknowledgement from DOL should be kept on the file at all times.

3.1.2 HEALTH AND SAFETY PLAN FRAMEWORK

The H&S aspects related to the project outlined in the previous sections are to be taken into account when drawing up the H&S Plan. The PC is required to demonstrate competence by providing a H&S system that will address the requirements of the project.

3.2 Appointment of Competent Site Personnel

The CEO (OHS S16.1) of the PC will take overall responsibility for the appointment of competent site staff for the duration of the project. Should the CEO not be personally involved in the project, the H&S responsibilities are to be delegated to the Site Agent (OHS 16.2).

Knowledge and training in H&S is required, and certificates indicating H&S training as well as experience to be included in CVs.

All other legal appointments are to be made with relevance to the type of work required and kept current with the project programme. The construction team is to ensure the appointed CHS Officer is kept up to date with all planned activities, to ensure all H&S requirements are met.

All construction/technical method statements are to be generated by senior site personnel, and the appropriate risk assessments developed therefrom in conjunction with the CHS Officer.

The Occupational Health and Safety Plan shall include the following, but is not limited to the following key appointments:

3.2.1 Construction Supervision

Competent Full-Time Construction Manager (CR8.1) will be appointed to manage part or all of the works and have training and/or experience in the area of responsibility. All site supervisors must show evidence of appropriate training in H&S, and an understanding or training in areas of responsibility (i.e., risk assessments, method statements etc.).

Curriculum Vitae (CVs) are to be submitted for approval by the Designer (PA) and/or Client. The Supervisor will be held responsible for the safety of working teams and subordinates, housekeeping and stacking and storage of materials.

If the Construction Manager (CR8.1) changes throughout the project. The Principal Contractor must ensure to provide the proposed Construction Manager CV and certificates for approval and then update the Annexure 2 and ensure that the appointment letter as well as proof of competency is available in the Health and Safety File.

3.2.2 Construction Health and Safety Officer

The PC will employ at least one competent, **part-time CHS Officer** (CR8.5) for the duration of the contract. The CHS Officer's CV is to be submitted for approval by the Client OR Client's Agent, at time of tender. The PC is to ensure adequate resources are provided in order to undertake all responsibilities.

Qualifications shall include at least Grade 12, Diploma in H&S qualifications or similar, with exposure to civil engineering and/electrical that is appropriate given the level of project complexity preferably in an OHS capacity.

The Safety Officer should also have undergone training in the Act and Regulations. In the case of a contract where contractors are employed, the CHS Officer must have competence to evaluate the

Proof of registration as a Construction Health and Safety Officer with SACPCMP must be supplied.

The CHS Officer/s will be held responsible for all H&S on the project.

- Senior site staff and supervision, Contractors are to follow systems, instructions etc. given by the CHS Officer at all times; No new workers or Contractors may commence work without
- approval or following the H&S plan as submitted, and
- No inductions of Contractor staff until the H&S documentation is approved by the CHS Officer.
- The CHS Officer/s may not be removed or replaced without the approval of the client of client's Agent, nor may the site be left unattended for more than 1 day without adequate, competent cover.

A weekly report of all H&S activities and incidents is required by the end of the week, or at a date agreed to by the Client or client's Agent and the CHS Officer. An example of the weekly report is attached as an **Annexure C**.

The CHS Officer will be responsible for collating the H&S documentation at the close out of the project in electronic format. The PC is to ensure that all Contractors documentation follows the same requirements and closed out H&S documentation must be completed and be available with the close out of the main contract.

3.3 Health and Safety Representatives and H&S meetings

H&S Representatives representing workers and Contractors are to be appointed following the startup of the project, irrespective of the number of workers on site. The appointed H&S Representatives are to be actively involved with H&S and will assist the CHS Officer and site management in meeting legislative duties.

The CHS Officer shall further ensure that H&S is discussed at all internal production or progress meetings. Issues arising from the CHS Agent audits are to be discussed, as well as all H&S related issues.

Minutes are to be kept for all H&S interventions and meetings. Failure to do so will be deemed to be a moderate offence.

3.4 Appointment of Competent Contractors

The Principal Contractor is to ensure compliance with the Client's minimum standards and all legislative requirements. The same H&S standards required of the PC are to be applied to all Contractors. An index of all Contractors and Suppliers is to be on file and kept always updated. The PC is to ensure there is sufficient funding for H&S compliance by each Contractor.

4. GENERAL RISK MANAGEMENT

4.1 Health Risks and Medical Surveillance

As some products to be used in the building work have not been identified, the PC is to ensure the CHS Officer and all supervision is responsible for ensuring the safe use of such products, and their inclusion into method statements and risk assessment. The appropriate SDSs are to be obtained for all products and used to develop the H&S documentation as they relate to the works.

Many of the processes may be labour intensive and ergonomic risks are to be noted. All workers (including Contractors) are to be included in the medical surveillance programme.

Workers will be exposed to biological risk, noise, dust, and physical risks from extended periods of work of a repetitive nature, materials specified and the general nature of the business.

All permanent workers (including those of Contractors) are required to be in possession of a medical certificate of fitness issued by an Occupational Medical Practitioner prior to commencing work.

It is recommended that the PC has a medical surveillance plan. Full medical records are not to be placed in the H&S file. A procedure for managing the medical records which require safekeeping for prescribed periods are to be addressed.

No employee/ contract worker will be allowed on site without a valid medical certificate of fitness. Failure to do so will be considered a serious offence.

5.1.1 General Environmental Conditions

Compliance with the Environmental Regulations (as amended), among others is required. Environmental monitoring of ventilation, lighting, presence of asbestos containing material (where necessary) and dusts may be deemed to be required by the Approved Inspection Authority used to measure the environment. Copies of the relevant reports and actions taken in respect of these are to be placed in the H&S file.

5.1.2 Noise and Dust Control and Risk

All plant from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations. Plant identified that has not been tested and marked for noise emissions will result in having to be tested at the Contractors or PCs expense. Failure to do so within a reasonable time period will result in such plant being removed from site.

The PC must ensure to take note that the facility will be fully operational and take extra care and planning communicated to the hospital staff to ensure that noise and dust does not interfere with daily activities.

5.2 Emergency Procedures

An emergency plan and procedure that is appropriate to the risks is required prior to commencement on site. It is advised that the system should be simple and easy for any worker to follow. The plan may be adapted should new information or risks are identified.

The contractor will take into consideration the existing emergency plan and procedures of the existing facility. It must be noted that the Hospital Facility will be fully operational during construction works.

The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to) the following key elements:

- Appointment of a competent emergency response coordinator.
- Fire;
- Public injury, Motor vehicle accidents;
- Falls from heights;
- Serious injury to workers (medical or work-related); and
- Any other major risks identified during risk assessments. Drills to be conducted bi-monthly for the below:
 - Fire drill.
 - Bomb threat.
 - Fall from Heights Rescue procedures.

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project.

- Local emergency telephone numbers must be displayed and made part of the emergency procedure.
- First aid
- Extra gloves Evacuation plans

The general principals of emergency management are to be applied as it applies to the hierarchy of control and management.

5.2.1 First Aiders and First Aid Equipment

At least one employee is to be appointed for the duration of the project as a first aider and must be trained to Level 3. First aiders shall be available and accessible on site at all times and be able to work as a team when responding to any emergency on the project.

Contractors are expected to ensure compliance and provide/manage their own first aiders and equipment. The number of First aiders will be determined by the complexity and exposed risks of the project, not numbers of workers.

Appropriately stocked first aid kits, as per the GAR requirements, are to be available at all times to assure continual availability and access on site.

First aiders shall be available and accessible on site at all times and be able to work as a team when responding to any emergency on the project. The contractor is to ensure that the first aider forms part of the rescue planning emergency situations when working at heights.

5.2.2 Fires and Emergency Management

Attention to emergency planning and procedures is very important. The full emergency plan must form part of the supporting documentation with the H&S Plan. The Client's approval of all emergency plans and procedures is required prior to commencement on site. It is advised that the system should be simple and easy for any worker to follow. The plan may be adapted should new information or risks are identified.

First aiders shall be available in each working team and be able to work as a team when responding to any emergency on the project.

The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to) the following key elements: Appointment of a competent emergency response coordinator and wardens;

- Lists of first aiders, and
- Requirement in terms of identified risks:
- Fire;
- Explosions;
- Falls from heights, and
- Motor vehicle accidents.
- Biological risks: e.g., disease outbreaks

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project.

The emergency plan is to include the risk of fire on site and related to any specific activities where gas, welding, cutting etc. occur.

Fire extinguishers will be appropriate for the risk and in sufficient numbers to deal with the type of fires that could occur. All mobile plants are to have appropriate, accessible fire extinguishers. Hot work permits are required for any such activities.

5.2.3 Incident Management and Compensation Claims

All incidents and accidents are to be investigated. All serious incidents involving any form of disabling injury or fatality are to be reported to the Designer (PA) /Client /CHS Agent immediately. This shall be confirmed in writing following the incident. Full details are to be included in each site meeting or when the Client visits site. A summary of incidents is to be included in the monthly report.

Any person who contracts an Occupational Disease will need to be reported to the Compensation Commissioner as an occupational disease where their work is to monitor and in contact with others. Such details are provided in the Compensation for Injuries and Diseases Act (COIDA).

Failure to comply with emergency provisions will be considered a serious offence, and the operation or project may be stopped if deemed inadequate for the work at the time of assessment or site inspection.

5.3 Personal Protective Equipment (PPE) and Clothing

The PC is to provide a procedure as an addendum to indicate how PPE is managed within the Company. The wearing of the identified SANS approved PPE. The PC shall ensure that all workers (Including Contractors) are issued with and shall wear:

- Hard hats;
- Protective footwear.
- Dust
Masks
- Hand Gloves
- Fall arrest equipment
- Overalls with reflective strips that ensure worker visibility.
- Eye protection (if required)
- Hearing protection (when required)
- Reflective jackets for supervisors and visitors.
- Safety Harnesses (working on heights)
- Respiratory protection (minimum of FFP2), and
- Any other necessary PPE identified from SDSs and/or risk assessments.

Adequate quantities of PPE shall be available. This shall include the necessary PPE for visitors. The procedures for managing PPE are to be in a formal procedure submitted with the H&S plan for approval.

Any person (including Client, Designers (PA) & PSP'S etc.) found on site without the necessary PPE will be removed from site until the PPE is supplied and worn.

Failure to comply will result in penalties being applied.

5.4 Occupational Health and Safety Signage

On-site H&S signage is required. Signage shall be posted up at fixed or temporary working areas, or other potential risk areas/operations. These signs shall be in accordance with the requirements of the General Safety Regulations or SANS requirements as amended. Signage is to be noted on the site drawings indicating where fixed/temporary signage is required.

It should be noted that the Hospital Facility will be fully operational during construction activities and the contractor to ensure sufficient separation.

Temporary signage is to include (but not be limited to) the following:

- Report to site office/ 'Warning: Construction Site – Keep out' or similar;
- Site office
- hard hat area or other PPE requirements noted;
- First aid box positions (including vehicles); and Fire extinguishers.
- Assembly Area

Signs shall be posted at areas of work on site indicating that a construction site is being entered and that persons should take note of H&S requirements.

Note should be taken that "omnibus" signs indicating that the entire site requires PPE should not be used. Any areas where PPE is mandatory must be separately signed.

The Principal Contractor must ensure that members of the that need to access the hospital will not be able to gain access to the construction area. It should be noted that the Hospital will be fully operational, and the construction area should be properly and securely barricaded at all times.

Failure to comply will result in penalties being applied.

5.5 Induction of Employees and Visitors, General H&S Training

A simple, formal induction programme is to be submitted as an addendum for approval with the H&S plan. Inductions must be carried out for all workers and visitors (including Client and PSP's) to the site.

Pre-task training is required to ensure workers are familiar with the risks and H&S measures of the work or tasks to be done. Such training is to be done at least daily. Records of inductions and pre-task training are to be kept in the H&S file.

Any person found on site without proof of induction in the H&S File will be removed from site until the proof is supplied and, and a penalty issued per non-compliance.

5.6 Management of Plant and Equipment

Close control of plant and equipment is required, including that of Contractors. No handmade and damaged equipment to be used on site, control of all equipment and plant is required. It should be noted that control measures should be implemented especially between the working areas and should at all times be separated from the existing facilities employees' persons and vehicles.

Daily monitoring of all plant and equipment is required prior to commencing work. Full lists of hired and own plant are to be available at the Client or client's Agent audit. All daily inspection records are to be kept in the H&S file. Plant Hire and Haulage Contractors are to comply with the requirements where plant and equipment is brought onto site. Registers are not to be more than 1 week behind.

Only competent, fit plant operators are to be used and in possession of medical certificates of fitness. Any plant or slings used to lift plant or material require annual load testing by an AIA, and all certificates must have the testers LMI/E number. Operators are to be adequately trained and certified to operate mobile cranes or crane trucks. Certificates and registers are to be placed in the H&S file.

Movement of plant in closures and in confined working areas is to be closely monitored and managed by the supervisors. The blind spots of plant are to be taken into account and workers and Contractors protected accordingly. Failure to do so will be considered a serious offence

5.7 Working at heights.

The appointment of a Fall protection plan developer to be submitted for approval prior to appointment. A fall protection and rescue plan is to be available and supplied as an addendum to the H&S plan.

The Fall protection plan to be submitted for approval prior to working at heights. The fall protection plan must be appropriate for the project. Method statements, appropriate risk assessments, safe work procedures and training are to be available prior to work commencing.

When working at heights connecting the conductor a method statement to be approved prior to commencement that will include measures to protect the employees from the fall risk.

The focus for working at height shall include fall restraint systems where possible except during assembling or dismantling top components or where it is not deemed safe.

- The relevant SANS codes are to be applied as they apply to the works and the project, such as: SANS 10085
- SANS 10333 (parts 1-3)

Should part of the works be contracted out, competent Contractors are to be appointed and submit documentation according to the project requirements. The PC is to note if such work is to be contracted to specialists in the H&S Plan. The plan is to be developed and work managed by a competent person for the duration of the project. The following aspects must be included:

- The public or users of buildings are to be protected at all times by way of hoarding,
- barricading or fencing; Notices to be posted;
- Restrictions or stoppage when weather conditions are deemed hazardous;
- Permit system for working at heights;
- Prevention of falling tools or equipment;
- Link to emergency plan regarding rescue.

All workers are to be in possession of valid certificates of fitness that extend for the duration of the works. Note the requirements in the section relating to medical surveillance. Registers and all relevant documentation are to be placed in the H&S file.

Work will be stopped, and penalties applied to any work at heights that is not compliant.

5.8 Auditing

Frequency of external auditing by the Client or CHS Agent will be conducted on periods determined by the client to ensure that the contractors conform to the requirements of the Construction Regulations. The site will be inspected, and the documentation audited relative to the activities and H&S plan. The CHS Officer of the PC must accompany the Client, or the client or client's agent, on all audits and inspections.

The PC will ensure that all their Contractors are audited at a frequency determined by the Client or Client's Agent. Audit frequency may be increased if Contractors are not performing adequately. Audit results will be acted upon, and non-conformances and penalties issued where deemed appropriate. The Client may act or require further outcomes if non-compliances are noted, or unsafe acts are noted on site.

Compliance with legislative requirements and the systems provided by the PC to manage the H&S on site will be measured. Full compliance is required. Time limits for corrective actions will be set and must be adhered to.

Failure to address findings or non-conformances will be considered a serious offence.

5.9 Communication on Site

All H&S communication during the project between the Client and the PC will be done in writing, including the issue and responses to non-conformances and H&S audit results. Failure to address issues timeously will be considered a serious offence.

5.10 Care of Workers on Site: Access/Egress of Site / Welfare Facilities

Access

Contractor to ensure that Access control to be in place, hoardings erected to separate site from public. Extra hoarding to be in place to ensure the public and personnel are kept out of the construction site. The Hospital Facility will be fully operational, and the contractor must ensure no unauthorized entry by the public, patients as well as employees of the hospital at any time.

Welfare Facilities

Adequate toilets, clean, safe drinking water and decent shelter must be afforded workers at all times. Toilets will be within reasonable distance of workers, or placed with each working team in safe, with reasonable privacy. Existing facilities may not be shared with existing users of the facility.

5.11 Discipline, Alcohol and Substance Abuse

All employees (management included) are to follow instructions given in the interest of H&S. Disciplinary action is to be imposed on those who do not follow such instructions or company rules or policies. Contractor to always follow hospital safety rules not to interfere with hospital activities.

No person is allowed to work or access site if under the influence of alcohol or other substances that could impact on their own or others safety. The PC is to have a drug and alcohol policy available to manage such instances.

These requirements are applicable to any employee of any organization providing services on site. Penalties may also be applied by the Client or Client's agent.

The contractor will ensure to adhere to the hospitals rules and policies at all times.

5.12 Electrical Equipment

In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection.

Contractor to provide a Certificate of Compliance for all temporal distribution boards.

Leads must be properly and firmly connected. Plugs and sockets shall be in good and safe condition. All electrical apparatus, other than electrical hand tools, shall have a physical "lock out" system which will prevent any operation other than that authorized by a supervisor. A "lock out" sign shall be displayed when the apparatus is not in use.

Method statements and safe work procedures will be required for all work involving electrical apparatus.

5.13 Asbestos Management

Should the contractor identify any asbestos containing material, the client should be informed immediately to provide guidance.

Where asbestos containing material has been identified, the requirements of the asbestos Abatement Regulations would be applied.

Failure to do so will be considered a serious offence.

5.14 Barricading and Hoarding

It is the responsibility of the contractor to ensure to price correctly for barricading and hoarding as the construction site (each separate construction area) must be securely barricaded from the Hospital facilities to ensure that no public, hospital employees or patients can gain any access to the construction areas. Contractor to ensure that the barricading/ hoarding is maintained at all times as the hospital will be fully operational.

DANGER TAPE OR CANDY TAPE IS NOT PERMITTED TO BE USED ON SITE AS A MEANS OF DEMARCATION!

5.15 Traffic Management

The contractor to develop a comprehensive traffic management plan that includes: A site-specific traffic flow diagram. Identification of high-risk traffic areas or zones. Strategies to minimize disruptions to normal hospital operations.

Measures to control vehicle and pedestrian movement around the work area. Clear signage and demarcation of safe areas. Procedures for managing temporary road closures or detours. Provision for emergency vehicle access.

Plans for managing deliveries and contractor vehicles.

5.16 Temporary Works - Scaffolding, support work, formwork (Not applicable on this contractor)

The Principal Contractor shall ensure that the provisions of Regulation 12 of the Construction Regulations are adhered to.

These provisions must include but not be limited to the appointment of a competent supervisor; ensuring that all equipment used is examined for suitability before use; that all formwork and support work is inspected by a competent person immediately before, during and after placement of any imposed load and thereafter, daily until the formwork and support work has been removed. Signing-off will serve as confirmation that shuttering/formwork/support work has been erected as per the approved design and it is safe to be used for the intended purpose.

The appropriate competent persons are to be appointed to manage and monitor such works to the satisfaction of the Engineer and Client.

Records and registers are to be properly completed and kept in the H&S file.

Failure to do so will be considered a serious offence.

All scaffolding / temporary works support work must have design drawings that includes load bearing and approved by competent person.

5.17. Ladders and ladder work

The Principal Contractor shall appoint a competent person in writing to inspect all ladders weekly and record such findings in a register. Ladders are to extend one meter above a landing and must be secured at the top and have a secure, non-slip base. All ladders that do not comply with Health and Safety standards are to be removed from the site immediately.

5.18 Biological Hazards

It should be noted that while performing construction work at Tarkastad Hospital it is possible for construction workers to get into contact with biological risk. Coordination between contractor and hospital infection control shall be implemented to address any concerns relating to biological hazards. All workers entering the construction site must undergo training on the identification and handling of biological hazards prior to commencing work. Contractors shall apply appropriate health and safety measures including PPE and hygiene protocols as per the regulations for hazardous biological agents.

The baseline site HIRA should continue to acknowledge Viral Hazardous Biological diseases outbreak as a general Hazard. Should there be an outbreak the HBA Regulations will apply and this may require additional controls like HIRA, method statements that address transmission prevention planning, PPE and signage. All employees who have or will be identified to work in areas where they might be in direct contact with body fluids, those employees are required to be vaccinated against Hepatitis A and B virus.

5.19 Site works and excavations.

A competent person is to be appointed in writing to supervise the Site Works and Excavations. A method statement on procedures relating to the diversion of existing services and the maintenance of services to the existing facilities is to be agreed between the Contractor and the Principal Agent prior to the commencement of the work where applicable. The Contractor is to ensure Risk Assessments & Safe Working procedures have been communicated to the workers before any work is commenced.

Excavations should preferably not be open beyond what can be closed daily. Where excavations need to remain open, all excavations are to be properly protected. Adequate stakes with 1m high demarcation and berms/spoil are required to be a safe distance from the edge of the angle of repose. Candy tape may not be used to demarcate excavations. Cognizance is required of the surrounding area and increased levels of protection are required where work is in communities, near schools and clinics.

Work will be stopped, and penalties applied to any work in excavations that is not compliant.

5.20 Safety Rules with respect to work to Health Care Facilities

All persons on the premises shall obey the ECDoh & facilities' Health and Safety rules, procedures and practices.

All work shall be carried out within normal working hours except certain essential works which may need to be carried out after hours or over weekends.

Arrangements for such work to be agreed in advance between the Contractor and the facility.

Emergency / Firefighting equipment belonging to the premises is not to be interfered with.

Emergency Exits and Escape Routes, including Temporary Escapes Routes are not to be obstructed.

No persons shall carry out or initiate an unsafe / unhygienic act or operation whilst on the premises.

Workers are not to interfere with the duties of the hospital, its staff, patients or visitors.

The Contractor shall maintain good housekeeping standards in the areas being worked on throughout the duration of the contract.

The health facility reserves the right to search any person entering or leaving the health facility premises.

All workers must wear proper identification labels at all times – The Contractor will be asked to remove persons without identification from the premises.

The Contractor will not be permitted to use any tools or equipment belonging to the health facility.

The Contractor is to ensure that noise is kept to a minimum so as not to unduly interfere with the functioning of the adjacent facilities.

The Contractor is to ensure that dust from the works is properly contained so as not to cause problems with the normal functioning of the hospital facility activities.

6 HEALTH AND SAFETY FILE

The documentation submitted and approved following the awarding of the contract will be used to form the H&S file. The H&S file is required to be laid out in a logical manner, and documentation filed within the file is to be easily accessible.

The following completed information shall be included (but not be limited to) as part of the index:

- The PSHSS;
- The H&S plan and approval by the client;
- The Traffic Management and Approval by client
- Appointment by Client;
- Mandatory agreement with Client;
- Construction Work Permit from the Department of Employment and Labour
- A record of all working drawings, calculations and design where applicable;
- Detailed list of Contractors with contact details, appointments, Mandatories etc;
- H&S specifications issued;
- Record of Competencies (CVs) and appointments;
- Training Records;
- Permits;
- Method statements;
- Risk assessments;

- Safe work procedures
- Emergency and injury management;
- Safety data sheets;
- Medical surveillance records;
- Registers;
- Records of audits, minutes etc.
- Plant lists;
- Temporary electrical installations;
- Employee records (who is on site)

7. NON-CONFORMANCES

Should, at any time, the works, or part of the works, be stopped due to unsafe acts or non-compliance with the Clients or PCs H&S Plan; neither the PC nor any other Contractor shall have a claim for extension of time or any other compensation.

The following constitute examples of the types of non-conformances that will attract penalties:

Minor: Penalty: R50/count	Medium: Penalty: R500/count and a non- conformance	Severe Penalty: R5000/count, a non- conformance and/or activity stoppage
Non-use of PPE supplied	Toilets not supplied or regularly serviced; lack of drinking water	Contractors working without Health and Safety Plan approval
Non-completion of registers for plant and equipment on site	Contractors not audited	Workers transported in contravention of the OHS plan or legal requirements
Lack of H&S signage at work areas	Working without training or the appropriate, approved H&S method statements	Invalid Letters of Good Standing
Tools and equipment identified in poor condition during inspections	Legal non-conformances identified during the previous audit and not addressed within the agreed time frame	Non-compliance with traffic accommodation requirements: layout or physical conditions
	No monthly OHS report at site meeting to report on	Any serious breach of legal requirements
	No certificates of fitness for workers as required	
	Working without approved method statements	

7.1 Failure to Comply with Provisions

Failure or refusal on the part of the PC or their Contractors to take the necessary steps to ensure the safety of workers and the general public in accordance with these specifications or as required by statutory authorities or ordered by the engineer, shall be sufficient cause for the engineer to apply penalties as follows:

- (i) A penalty as shown in the Table above shall be deducted for each and every occurrence of non- compliance with any of the requirements of the PSHSS.
- (ii) In addition, a time-related penalty of R500, 00 per hour over and above the fixed penalty may be deducted for non- compliance to rectify any non-conformance within the allowable time after a site instruction to this effect has been given by the Designer. The site instruction shall state the agreed time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

8 MEASUREMENT AND PAYMENT

The payment items for Occupational Health & Safety are contained in the Bill of Quantities. The same rules are applicable in respect of the pricing of these items as for every other payment item. Attention is drawn to the Pricing Instructions in this document.

Item and Unit

C.01 Preparation of Contractor’s Project Specific Health and Safety Plan. (Lump Sum (L.S))

The rate for this item must cover all expenses incurred in preparing the Contractor’s project specific Health and Safety Plan as required by the Client’s project specific Health and Safety Specification in this document.

C.02 Principal Contractor’s initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations. (Lump Sum (L.S))

The full amount will be paid in one instalment only when the Client's Agent has verified and approved the following:

- (a) The Principal Contractor has notified the Provincial Director of the Department of Labour in writing of the project, Annexure A to the Regulations.
- (b) The Principal Contractor has made the required initial Appointments of Employees and Contractors.
- (c) The Client has approved the Principal Contractor's project Health and Safety Plan.
- (d) The Principal Contractor has set up his Health and Safety File.

C.03 Principal Contractor's time related obligations in respect of the occupational Health and Safety Act and Construction Regulations. (Month (Mth))

The amount shall represent full compensation for that part of the Principal Contractor's general obligations in terms of the Occupational Health and Safety Act and Regulations which are mainly a function of time. Payment will be made when the Client's Agent has verified the Principle Contractor's compliance as part of the audit. This will include the updating and administration of the Health and Safety file.

C.04 Provision of Personal Protective Equipment (PPE) as listed in the Bill of Quantities. (Number (No))

The rates for these items shall include for the procurement, delivery, storage, distribution and all other actions required for the supply of PPE to the employees of the Principle Contractor, full or part time, requiring them. Sub-Contractors are responsible for their own costs in this regard. Any items of PPE not included on the list will be paid for only after the Engineer has agreed to their acquisition.

Items listed will include, among others which may be noted, are hard hats, reflective vests, reflective bibs, high visibility overalls, protective foot wear, fall arrestor harness and tethers, gloves, ear muffs, earplugs and dust masks of appropriate type. Normal items such as standard overalls, waterproof clothing, gum boots and standard workshop safety equipment such as welding masks and goggles will not be paid for.

Payment will be based on the issues register for PPE as kept by the Construction Health and Safety Officer, backed up by paid invoices if requested.

C.05 Provision of part-time or Full Time Construction Health and Safety Officer, Construction Manager, Assistant Manager, Construction Supervisor

The Tender sum shall include for the cost of a Construction Health and Safety Officer, Construction Manager, Construction Supervisor on a fulltime basis, the amount tendered will be prorated according to the amount of time spent on the project.

C.06 Costs of Medical Surveillance (Unit (No))

This item shall cover all costs in involved in the obtaining of baseline medical examinations of temporary labour, including operators for mobile plant as contemplated in CR 21(d) (ii); for temporary workers and workers exposed to noises at or above the limits given in the Noise-induced Hearing Loss regulations, as stipulated.

Workers in the permanent employ of the Contractor will only be paid for if their certificates require updating.

C.06 a) Initial (baseline) medical examinations, including audiometric and lung function testing.

C.07 Induction Training (Unit (No))

This item shall cover all costs incurred for the health and safety inductions as set out on Regulation 7 of the Construction regulations and the proof of induction required. Payment will be made on the figures contained in the induction section of the Health and Safety File.

C.08 Provision of First Aid Boxes. (Unit (No))

The rate for this item shall cover all costs incurred in the provision and maintaining of first aid boxes as outlined in Paragraph 7 above.

C.09) Establishment of noise levels (Unit (No))

a) This item shall cover all costs involved in the establishment of noise zones, including any workshops, in terms of Regulation 9 of the Noise-induced Hearing Loss Regulations. Where a zone has previously been established for a particular item of plant within the last two years, the test need not be repeated but must be kept valid for the duration of the Contract.

C.10 Submission of the Health and Safety File. (Lump Sum)

Expenditure under this item shall be made in accordance with the general conditions of contract.

This amount will be paid only once the Principal Contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction. This must be done prior to the issue of a Certificate of Completion

Tenderers are to note that a large portion of the works associated with this bill section are required over existing roads ways and at extreme heights (ground level to top of roof approximately 9m). The contractor shall include for all required OHS items as per the included OHS plan including any scaffolding that may be required when pricing this bill section.

ANNEXURE A

1. Acknowledgement of the H&S Specification by Principal Contractor

Construction Health & Safety Specification

Issued in terms of the Occupational Health and Safety Act, 1993

Construction Regulations, 2014

I, _____ representing _____
_____ Principal Contractor have satisfied me with the content of this Construction Occupational Health
and Safety Specification and shall ensure that the Principal Contractor, all contractors and sub-contractors and all
employees on site comply with it.

Signature of Principal Contractor

Date

Signature of Client

Date

This document must be signed and returned to the Client or Client's Agent.

ANNEXURE B: CLOSE OUT REQUIREMENTS

The H&S files for the Principal Contractors and all Contractors require closure and handover to the Client at the completion of the project. The following list is an example of what should be included but is not exhaustive. The OHS Agent or the Client may require further information at the time of completion and the Principal Contractor is to ensure that all instructions are met. Documentation would include all records from the start of the project. Daily or monthly plant inspection records are not required unless they are related to an accident. All records to be in electronic format and submitted to the OHS agent for approval in adequately formatted lists and folders. Layout should be logical and in the same order as in the site files.

Health and Safety close out file requirements include:

- a) Client H&S Specification
- b) Principal Contractor's OHS Plan(s)
- c) Principal Contractors Policies
- d) Organograms
- e) Legal Appointments
- f) List of all employees employed on a permanent or contractual basis over the duration of the contract.
- g) Notification of construction with the Department of Employment and Labour of commencement of work
- h) Letter of Good Standing
- i) Full files for all Contractors as well as their
 - close out reports
 - List of Contractors
 - All employees employed on a permanent or contractual basis over the duration of the contract.
 - Letters of Approval of Contractors
 - Mandatary Agreements
 - Letters of Good Standing
 - Appointments
- j) Incident Records
- k) Non- Conformance records
- l) Agent's Audits
- m) Method Statements
- n) Risk assessments
- o) Safe work procedures
- p) Medical surveillance certificates of fitness. Medical records are to be kept according to the OH&S Act as amended.
- q) All drawings for temporary structures (suspended beams/scaffolds etc.)
- r) All operating manuals for any systems that require on-going maintenance.
- s) Copies of test results, policies and procedures for environmental monitoring (silica, noise, dusts etc.)

Defect and Liability Period

The H&S files are to be kept 'live' for the defect and liability period by the Principal Contractor, including those of their Contractors. Any work required during the defect and liability period will require an assessment of the H&S file by the OCHS Agent prior to any work commencing. A copy drawing records for the as-builts are to be placed on file by the Designers once complete.

ANNEXURE C

HEALTH AND SAFETY SITE INSPECTION NON-CONFORMANCE NO		
AGENT:	PROJECT:	
Consultant:	Date and time:	
Client	Area:	
Contractor:		
ASPECTS NOTED:	COMMENTS:	COMPLETION REQUIRED BY (DATE):
	•	
	•	
	•	
	•	
	•	
PHOTOGRAPHIC EVIDENCE (if available):		
OTHER:		
The following penalties are to be applied:		
Signature of Designer		
Signature of CHS Officer/Site Agent		
Signature: of CHS Agent		

ANNEXURE D

(To be submitted by the end of the first week of each month and be available with each audit)

CONTRACT NUMBER:		PROJECT NAME:	CONTRACT DETAILS:
1	GENERAL ACTIVITIES FOR THE MONTH (detail each area of work)		
2	NUMBER OF WORKERS (permanent and local, contractors)		
3	TRAINING DONE (supplier, no of people, type)		
4	INCIDENTS / ACCIDENT (list number and details, attach reports)		
6	NON-CONFORMANCES (closed out or active)		
7	CONTRACTORS (list, approval status)		
8	AUDITS COMPLETED (internal and external)		
9	CRITICAL ISSUES		
10	GENERAL		

Health and Safety Officer: _____ Signature: _____ Date: _____

Construction Manager: _____ Signature: _____ Date _____

LEGEND	
CR	Construction Regulations
CHSO	Construction Health and Safety Officer
GSR	General Safety Regulations
N-IH I Regs	Noise Induced Hearing Loss Regulations
HBA Regulations	Hazardous Biological Regulations
HIRA	Hazard Identification and Risk Assessment
Db	Decibels
H&S	Health and Safety
PPE	Personal Protective Equipment
PA	Principal Agent
PSHSS	Project Specific Health and Safety Specification

PART C2
PRICING DATA

PART C2.1: PRICING INSTRUCTIONS

C2.1 Pricing Instructions

- 1 The agreement is based on the JBCC Edition 6.2 of 2018 with amendments from JBCC Edition 4.1, prepared by the Joint Building Contracts Committee. The additions, deletions and alterations to the JBCC Principal Building Agreement as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 3 Preliminary and general requirements are based on the [preliminaries for the use of JBCC Edition 6.2– May 2018](#). Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 4 It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).
- 5 The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the Principal Agent or Engineer and can be viewed at any time during office hours up until the completion of the works.
- 6 Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
- 7 The bills of quantities forms part of and must be read and priced in conjunction with all the other documents forming part of the contract document, The Standard Conditions of Tender, Conditions of Contract, Specifications, Drawings, The document “Construction Works: Specifications: General Specification (PW371-A) Edition 2.0” is obtainable on the Department’s website (<http://www.publicworks.gov.za/> under “Consultants Guidelines”), and shall be read in conjunction with the **bills of quantities** / lump sum document and be referred to for the full descriptions of work to be done and materials to be used. The document “Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.0” is issued together with the drawings and shall be read in conjunction with the drawings and the **bills of quantities** / lump sum document
- 8 Where any item is not relevant to this specific contract, such item is marked N/A (signifying “not applicable”)
- 9 The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminaries) of the Bills of Quantities
- 10 The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor’s risk.
- 11 The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract.
- 12 Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 11 but taking into account the revised period for completing the works.
- 13 The amount or items of the Preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
 - a) an amount which is not to be varied, namely Fixed (F)
 - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
 - c) an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related (T).
- 14 Where no provision is made in the Bills of Quantities to indicate which of the three categories in 13 apply or where no selection is made, the adjustments shall be based on the following breakdown:
 - a) 10 percent is Fixed
 - b) 15 percent is Value Related
 - c) 75 percent is Time Related

- 15 The adjustment of the Preliminaries shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminaries shall exclude any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.
- 16 The tender price must include Value Added Tax (VAT). All rates, provisional sums, etc. in the bills of quantities must however be net (exclusive of VAT) with VAT calculated and added to the Total Value thereof in the Final Summary.
17. The Contractor shall adhere to “The national minimum wage determined by the Minister in accordance with the National Minimum Wage Act (NMWA)”, and yearly pronounced increases for duration of contract.

PART C2.3: BILLS OF QUANTITIES

MV Overhead Power Line Construction Project BOQ

TITLE: MARTJIE VENTER HOSPITAL POWER SUPPLY AND INTERNAL LV UPGRADES

PRELIMINARY AND GENERAL ITEMS

Tender No:

Bill No:1		PRELIMINARY AND GENERAL ITEMS				
No		DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL
A		FIXED CHARGE ITEMS				
A.1	Site Establishment:	The Contractor shall establish the site camp and maintain throughout the construction period and allow for removal of such upon completion of Works. The IYM Representative reserves the right to negotiate the rates for rental arrangements based on the project scope and magnitude.				
A.1.1.		Office and Meeting Room complete as per P&G's Guideline	Sum	1		
A.1.2.		Stores	Sum	1		
A.1.3.		Sanitation	Sum	1		
A.1.4.		Electricity	Sum	1		
A.1.5.		Supply and Install Diamond mesh fencing at 1.8 meters high	m	80		
A.1.6.		Supply and Install Diamond mesh Lockable Gate 1.8m high x 3.6m wide	each	1		
A.1.7.		Project Preparation	Sum	1		
A.2.	Sign Board Labour					
A.2.1		Contractor shall erect on site, maintain throughout the construction duration(Safety)	each	1		
		Project sign board	each	1		
A.3.	Health and Safety measures (In terms of 34-333)	Safety & Health, Environmental				
A.3.1	3.1.1	Compliance with OH&S Act & Construction Regulations. (for projects where task order value exceed R100,000-00)	Sum	1		
	3.1.2	H&S compliance for projects where task orders are below R100k. Excl P&G's	Sum	N/A		

	3.1.3	Maintenance of H&S file (only applicable for projects exceeding 2 months in duration)	Monthly	1		
A.4.	Material Management					
A4.1		The Contractor shall make allowance to receive at Eskom stores, offload and stack the free-issue materials supplied to the contractor.	Sum	N/A		
A.5.	Contractual requirements	Comply ,maintain all insurance and statutory contributions, etc.				
A.5.1		Allowance to Comply ,maintain all insurance and statutory contributions, etc. (Actual cost will be paid at the end of the project and proof of policy must be provided and must be compliant to contractual requirements)	Sum	1		
			Sub-Total A			

B.	TIME RELATED ITEMS		UNIT	QUANTIT Y		TOTAL
B.1	Site Establishment					
B.1.2.		Site office 6m x 3m with aircon	Weeks	12		
B.1.3.		Site Storage 6m x 3m	Weeks	12		
B.1.4.		Water	Weeks	12		
B.1.5.		Sanitation (service)	Weeks	12		
B.1.6.		Electricity (Eskom/Munic supply)	Weeks	12		
B.1.7.		Electricity (Generator 6.5kVA)	Weeks	12		
B.2	Accommodation	Accommodation Allowance is for the Contractors Staff excluding the casual labourers which are assumed to be residing in the area where the works are executed.				
B.2.1.		Staff Accommodation Allowance	Weeks	12		
B.3	Security					
B.3.1.		Security on site - 24 Hour Unarmed Security (Must be registered with the appropriate body)	Weeks	12		
B.4.	Labour	The Contractor need to submit Weekly Time Sheets for all hourly compensation claims and a Daily attendance register				
B.4.1.		<i>Supervisor per team</i>	hourly	360		
B.4.2.		<i>Construction Manager (SACPMP Registered)</i>	hourly	72		

2.5	Three Phase Section link - Cut-out (Solid) - 2.5M X-ARM - 200A 22kV - Single pole c/w inserts (Sets)	D-DT 1848	No	1			
2.6	Three Phase Equipment link - Cut-out (D/O Fuse) - 2.5M X-ARM - 20A 22kV - Single pole c/w inserts (Sets)(including 1866B structures)	D-DT 1849	No	1			
Medium Voltage Surge Arrestors							
Supply, deliver, off load on site and safely store on site the following surge arrestors, complete with galvanised steel mounting brackets for securing the surge arrestor, nuts, bolts, washers and lock washers as specified. Secure the surge arrestors and brackets to the transformer as specified including the termination of conductors. Excluding the conductors and transformer.							
2.8	22kV, 10kA Surge arrestor	DDT 3100	No	1			
Neutral Surge Arrestor							
Supply and install a LV surge arrestor including lugs and galvanised bolts							
2.9	Surge arrestor	DDT D270	No	3			
Transformer Earthing							
Supply and install all materials for the complete earthing of transformers and bulk meter structures as specified. Included in the rate shall be all required spikes, insulated copper conductor, galvanised conduits, staples, bare copper, excavations, backfilling, etc. The rate shall allow for one MV earth electrode only, consisting of four earth spikes in accordance with the specifications. Additional earth spikes/conductor shall be measured elsewhere if required.							
2.10	MV Earth Transformers (Incl Aux trfr)	DDT 1860	No	1			
TOTAL : Carried forward to summary							

BILL NO 3 - MEDIUM VOLTAGE OVERHEAD DISTRIBUTION SYSTEM

**MARTJIE VENTER HOSPITAL POWER SUPPLY AND
INTERNAL LV UPGRADES**

ENQUIRY NO.

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Conductor						
Note	<p>Safely store on sealed drums with ends adequately secured and transport to site conductor as specified. String conductor as specified including splices, jumper conductor ties, strain clamps, suspension clamps, tensioning, sagging, etc. The following dimensions will all be "CONDUCTOR LENGTH" not route length, allowance made for sag, waste.</p>						
3.1	Fox - ACSR (ungreased)		m	1500			
	<p>Supply and install all material as specified for the construction of the following MV structures. Including bonding of hardware and earthing. All excavations, poles, crossarms and stays are measured elsewhere</p>						
	3 PHASE STRUCTURES General Arrangement						
3.11	Three phase - A Frame Intermediate - RX	D-EC-2063	No	6			
3.15	Delta / 2,5m Wood X-arm - Strain - Terminal	D-DT-1746A	No	3			
	Auxiliary Structures						
3.25	Three phase - 2,5m Wooden X-arm - RX	D-DT-1804	No	3			
3.28	Transformer - Single pole mount - out-of-line arrangement	D-DT-1865	No	1			
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						R -
	Testing						
	Allowance shall be made for the complete testing and commissioning of the Medium Voltage overhead distribution system						
3.30	MV Test (per transformer installation, Incl Aux Trf)		No	1			
3.32	MV Earthing		No	1			
	TOTAL : Carried forward to summary						

BILL NO 4 - LV OVERHEAD DISTRIBUTION

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	LV STRUCTURES THREE PHASE						
4.1	LV 3 phase Bare Wire Suspension Assembly 0 Deg	D-DT-1100	No	3			
4.2	3CR12; POWDER COATED; COLOR: LIGHT NAVY GREY- C35 TO SANS 1091; STANDARD: ESKOM: 240-76628117; POLE/GROUND MOUNT FOR 200KVA LARGE POWER USERS; FULLY FITTED WITH ALL AUXILIARY EQUIPMENT AS PER D-1000; EXCLUDING METER; INCLUDING 300A THREE POLE MOULDED CASE CIRCUIT BREAKER, BUSBARS, INSULATORS, CTS (300-5A), FUSE HOLDERS AND FUSES, TEST BLOCKS, 230V SURGE ARRESTORS, WIRING AND TERMINALS; INDELIBLE MNFRS	D-DT-0338	No	1			
	Amount carried over to next page						

BILL NO 5 - SUPPORT FOR OVERHEAD RETICULATION

MARTJIE VENTER HOSPITAL POWER SUPPLY AND INTERNAL LV UPGRADES		ENQUIRY NO					
Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
Poles and Crossarms							
Supply and install pole in excavated hole, including cutting and scaffing, kicking blocks, bonding, treating, etc. Excavations and compaction are measured elsewhere.							
5.2	9m Pole, 180-199mm top diameter - MV	D-DT-0055	No	2			
5.4	11m Pole, 160-179 mm top diameter	D-DT-0051	No	6			
5.5	11m Pole, 180-199 mm top diameter	D-DT-0051	No	3			
5.7	12m Pole, 160-179mm top diameter	D-DT-0053	No	1			
Supply, off load and install the following wooden cross arms.							
5.10	2.5m, 140-159mm Diameter	D-DT-0316	No	7			
5.12	4.5m, 160-179mm Diameter	D-DT-0317	No	1			
Stays, Flying Stays and Anti-Climbing Devices							
Note	<p>The unit price for a standard stay and an aerial stay shall exclude the wooden poles, but include the stay wire, stay rods, insulators, stay plate, stay guards, bitumastic paint, guy grip dead end, earthing of stay, line splice, precast concrete slabs, po</p> <p>The following stays shall be in accordance with the specification and shall include a stay plate</p>						
5.13	MV Stay	D-DT-0341	No	5			
The following struts shall be in accordance with the specification (Poles measured elsewhere)							
5.16	MV 12m Strut	D-DT-0342	No	1			
Amount carried over to next page							

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
	The following anti-climbing devices shall include barbed wire as specified						
5.18	Anti climbing devices on Poles as per 05TI09	DDT-0399	set	1			
5.19	Anti climbing devices on Stays	DDT-0399	set	5			
	Excavations and Compaction						
Note	The excavations for service connections are measured elsewhere						
	Determination of pole positions, excavate in all ground conditions as necessary, and supply a mechanical boring device (Rock Driller/TLB). The rate shall include backfilling, compaction to 93% MOD AASHTO density, and where necessary the supply and transportation of backfilling material						
5.21	Hole for 9m pole - 1.5m deep		No	2			
5.22	Hole for 11m pole - 1.8m deep		No	9			
5.24	Hole for MV stay - 1.5m deep		No	5			
5.25	Hole for MV strut - 1.8m deep		No	1			
	Pole Labels						
	Supply and install labels on all poles in accordance with the specifications including the provision of all fixing materials						
5.28	Equipment labels (Trfs, links, SB)		No	2			
5.29	Transformer max fuse labels		No	1			
5.30	Warning labels		No	2			
5.32	Alluminium Pole Tags		No				
	TOTAL: Carried forward to summary						

FINAL SUMMARY

MARTJIE VENTER HOSPITAL POWER SUPPLY AND INTERNAL LV UPGRADES	ENQUIRY NO.	TENDER NO:
--	--------------------	-------------------

Bill	Description	Unit		Total Price (R)
1	PRELIMINARY AND GENERAL		R	
2	MEDIUM VOLTAGE SWITCHGEAR, SECTIONALISERS, TRANSFORMERS, ETC.		R	
3	MEDIUM VOLTAGE OVERHEAD DISTRIBUTION SYSTEM		R	
4	LV OVERHEAD DISTRIBUTION		R	
5	SUPPORT FOR OVERHEAD DISTRIBUTION SYSTEM		R	
	TOTAL ON MATERIALS AND LABOUR		R	
	<u>VAT @ 15%</u>		R	
	-			
	-			
	<u>GRAND TOTAL OF TENDER INCLUSIVE OF VAT</u>		R	

PART C3: SCOPE OF WORK

C3.1 SCOPE OF WORK

The following scope of work shall be undertaken to ensure that the objectives of this project are achieved:

The scope of work is for the upgrading of the power supply to Maftjie Venter Hospital in Tarkasdat.

Medium Voltage Overhead Power Line construction scope of work

- Plant an 11mx160 pole between the second and third existing structure before the terminal transformer (No prefix on the transformer). On this structure, mount a 2063 (Eskom Southern Region A Frame intermediate structure).
- Install isolating 3phase solid line links as per DDT1848 (3phase solid).
- On the same pole, install a take off structure as per DDT1804 and install back stay as per DDT0341.
- Cross the road with 49m span of fox conductor to a new terminal structure as per DDT1746A.
- This is to be a shared structure with existing LV ABC line.
- On this structure install DDT0920 and mount the existing LV O/H Open wire on this structure.
- Install a Take-off structure as per DDT1804
- Install 5 x intermediate structures on 11m x 160 mm diameter poles as per DDT2063.
- The 6th structure shall be constructed as a terminal structure as per DDT1746A.
- Install a take-off structure as per DDT1804 and cross the road into the hospital yard with a 34m MV span length with fox conductor.
- In the hospital yard install a terminal structure as per DDT1746A.
- On this structure install the new 200kVa transformer, pole mounted as per DDT1865 as an out of line structure.
- Install a new 200kVa meter kiosk as per DDT3236 (Detailed under item 2.7 in the specification part of this tender document)
- Install fused equipment links on this transformer structure as per DDT1849 (3Phase Fused).
- String a total route length of 450m of 3phase line with Fox conductor. This total includes the 34m and 49m road crossing spans stated earlier.
- Install a DDT0920 a structure before the transformer and treat that as a shared structure and mount the LV O/H Open wire
- Install DDT0920 at the third shared structure before the new transformer and mount the LV O/H Open wire
- Ensure that the hardware on the structures on either side of the road are specified for road crossing when procuring them.

Note:

- **It must be stressed that the contractor is not expected to affect or deviate from the design without prior approval from the engineer responsible for this design.**
- **The contractor shall investigate existing services and engage the local authority before construction commence.**

PART C4: SITE INFORMATION

C4.1 THE SITE



Figure 1: The location of Martjie Venter Hospital in Tarkastad in the Eastern Cape.

Martjie Venter is in Tarkastad town about 78km from Cradock. The GIS coordinates for this hospital are 32° 0'34.60"S, 26° 15'29.33"E

C4.2 WORK AREA

Employer shall make available a work site, free of charge, to the Contractor for the duration of the Contract. The location of the site will be pointed out by the electrical engineer during the site clarification meeting. The Contractor shall submit a site layout plan indicating the proposed working areas, storage, stock piling area, amongst others before for approval by the Project Manager before establishing on site.

C4.3 ACCESS

The site is accessible however the tenderers are to familiarise themselves with the site to determine routes for site access, restrictions and proximity to existing structures.

C4.4 GENERAL

Existing Services

The absence of as-built documentation makes very difficult to know where the existing services running underground. As a result of this situation, the tenderer should ensure they investigate the extend of the existing services such as water pipes underground, electric cables to ensure damage avoidance during construction. This exercise shall be carried out at construction planning stage and the findings discussed with the electrical engineer.

ANNEXURE 2 : SPECIFICATIONS

MV Overhead Power Line Construction Project Specifications

1 DETAILED PROJECT SPECIFICATION

Note: Unless otherwise specified the material shall be in accordance to the specifications listed in the Eastern Cape Operating Unit's material list (ECOU MatList Rev 12d June 20220 appended to this tender document).

1.1 Preliminaries and General Cost and Site Establishment

1.1.1 Work Specification

- The Contractor shall allow for the following specific requirements of Employer:
 - a) Office accommodation for meetings held on site.
- In addition to the specific requirements of Employer, detailed above, the contractor shall allow for his own preliminaries and/or overhead costs as required for the execution of the contract. It shall be divided into the following two sections:
 - A. Fixed-charge items such as: (SANS 1200A - 8.3)
 - Contractual requirements.

Establishment of facilities on site such as plant, sheds, water, electricity, lighting, etc.

- Removal of facilities from site after completion of work.
- Any other fixed-charge items.

B. Time related items such as: (SANS 1200A - 8.4)

- Contractual requirements.
- Operation & maintenance of facilities on site.
- Supervision.
- Company and head office overhead costs.
- Other time related items.

1.1.2 Material Specification

- The specific contractor shall supply, transport and off-load his own facilities such as sheds, water, electricity, lighting, etc. on the site.
- The contractor shall also be responsible to remove all facilities established on site after his work is completed

1.2 Site Works

- **Importing shall include:**
 - a. Imported soil shall be used for the soil/cement mixture and shall not consist of any excavated Black Turf.
 - b. The layers shall be compacted to a minimum density of 90% MOD AASHTO before the next layer of soil/cement mixture is placed.
 - c. For stayed poles with concrete anchors, the pole shall not be erected until the concrete has had 21 days in which to cure.

Bush clearing shall include:

The requirements of **ESKASABG3, STANDARD FOR BUSH CLEARANCE AND MAINTENANCE WITHIN OVERHEAD POWERLINE SERVIDUES** to be adhered to at all times.

Special reference from the above standard with respect to the Contractors responsibility is made below:

The Contractor/Employer shall:

- a) remain on all existing roads and tracks and within the servitude area and not deviate therefrom;
- b) keep Employers gates locked and leave property owners' gates closed or as agreed to in writing between Employers and the land owner;

- c) not interfere with the property owners' activities;
- d) request permission for the use of water;
- e) provide appropriate toilet facilities;
- f) not make fires;
- g) not litter;
- h) not drop fences;
- i) not collect firewood without consent; and
- j) not disturb or remove stones/rock from the site (i.e. archaeological and heritage sites).

Warranty shall be obtained from the Contractor that:

- a. He or she knows and understands the dangers involved in clearing bush in or around power lines and the dangers of the spread of fire.
- b. He or she understands and will comply with the Employers procedures.
- c. He or she understands that he/she must be authorized by the relevant Employers representative, in writing in terms of Contractor's ORHVS regulations. Employer must declare him or her competent.
- d. He or she is a competent person and is a registered pest control operator or shall ensure that any chemical clearing shall be done under the supervision of a registered pest control operator.
- e. He or she is able to and shall comply with, all legislation pertaining to the nature of the work to be done and all things incidental thereto.
- f. He or she shall appoint a land owner liaison officer, who shall personally contact all affected land owners and users telephonically or in writing and obtain their permission before any trees or bushes are cut, regardless of any previous arrangements or agreements. This shall not be applicable in the case where the Employer has undertaken this requirement.
- g. For all affected power lines a list of property owners shall be supplied, by Employer, to the contractor to enable him to obtain the owners' consent.

1.3 Installing of MV Equipment, which includes MV switchgear, sectionaliser, transformer etc.

Unless otherwise specified, Contractor to supply all nuts, washers, bolts needed for the works as per Bill of Materials, Part E.

- Equipment insulators installations shall include:

The vibration dampers shall be installed in the entire span greater than 180m length, and torque according to the manufacturer's specifications.

1.4 Support for overhead Distribution

1.4.1 Support of Overhead Distribution which includes installation of stays, poles, x-arms, etc.

Unless otherwise specified, Contractor to supply all nuts, washers, bolts needed for the works as per Bill of Materials, Part E.

- Installing stay rod assembly shall include:
 - Risk of collapse and keeping excavations free of water shall be included in the quoted rate.
 - Digging of holes of the installation of stays rod to D-DT-0350.
 - A rectangular stepped hole shall be dug so that the length of the hole is in line to the projected line the stay wire. The hole shall be large enough for the stay plate to fit in. Once the hole is dug, the front face of the lower step shall be undercut to accommodate the stay plate.

- A 80 mm wide slot shall be cut in the steps at 45° to allow for the stay rod. This is absolutely essential as without this the stay rod will cut into the ground when tensioning or with a good rain and cause the pole to lean or possibly break.
 - All excavations shall be kept covered or barricaded in a manner accepted by Eskom to prevent injury to people or livestock when no casting is done.
 - The Contractor shall notify the Clerk of Works upon completion of the excavation for the stay rod. No concrete shall be placed until the Clerk of Works has inspected the excavations and acknowledge his approval.
 - The stay plate shall be placed up against undisturbed soil on the pole side of the hole.
 - After a stay has been planted to the required depth, the soil that is to be filled into the hole shall be at optimum moisture content; if the soil is held in the hand and squeezed, it shall stay compacted after opening the hand.
 - The hole shall be filled with 250 mm of soil at a time. Each layer of soil shall be compacted with a mechanical or hand compactor until no further settlement occurs. Once it is compacted a further 250 mm layer shall be added and compacted. This shall be done to each layer of soil until the stay hole is filled up to ground level with compacted soil.
 - If the soil removed is a very loose soil and does not stay squeezed together when slightly moist, then cement shall be added to the slightly moistened soil.
 - To every five wheelbarrows of excavated soil, add one pocket of cement: this makes a 1/10 mix. The cement shall be properly mixed with the soil then added to the hole in 250mm layers and compacted. The cement mix shall be allowed to set for two days before tension is put on the stay.
 - If the soil removed from the hole is clay, an import soil shall be used to backfill the hole as specified above. This import soil shall be a river concrete sand. To every five wheelbarrows of import soil add one pocket of cement. The cement shall be properly mixed with the soil then added to the hole in 250 mm layers and compacted. The cement mix shall be allowed to set for two days before tension is put on the stay.
 - If the hole is waterlogged, the water shall be removed before the soil is replaced, an import soil that is cement stabilized as specified above shall be used to backfill the hole.
 - For construction purposes the correct hole type shall be installed for the type of soil conditions and stay rod assembly to be installed.
 - Excavation nominations shall be done by the Contractor before construction of the line takes place.
 - The nominations shall be done in the vicinity of each supporting structure position where the stay rod is to be installed.
 - The nominated excavations shall be re-evaluated on site by the Contractor, in conjunction with the Clerk of Works, after the excavation of the stay rod hole has been done.
- Installing of stays shall include:
 - Wind stays shall follow the requirements of D-DT-0341, D-DT-3124.
 - The stay wires shall be handled with care to prevent damage to the individual strands.
 - Ensure that the stay rod is firm to the ground before re-attaching it to the stay.
 - The stay shall be tensioned in accordance with the applicable design drawing as above using an approved load locker until no further upward movement occurs. The post installation load, as shown in table 1 column 2 below, shall be applied to the stay and held for two minutes. No upward movement of the stay shall be allowed during the two minute pre-tensioning.
 - If the stay is unable to sustain the required post installation load, then an alternative stay size shall be installed and the process repeated.
 - After the stay is pre tensioned the stay rod shall be marked with red spray paint just above the ground line. This is to indicate that the Contractor installing the stays has installed the stay in accordance with this document and load locked the stay in accordance with table 1 below.
 - No stays shall be planted without the relevant stay plates fitted on the stay rod.

1 Stay	2 Post installation load	3 Ultimate load	4 Pre tensioning required	5 Stay rod/ tendon length	6 D DT Dwg. No.
34 kN	25 kN	34 kN	All stays	1,5 m	DDT 3011
95 kN	60 kN	95 kN	All stays	2,0 m	DDT 3012

Table 1: Percussion stay technical data

1.4.2 Overhead Support which includes the completion of all civil works for the excavation of pole and stay foundations

Planting depth of poles shall be as in D-DT-0332. The foundation arrangements shall be as in D-DT-0330. Note: Construction teams should take steps to improve the foundation of the individual soil as and when such conditions are met on site. This may involve the use of kicking blocks or soil cement. For foundation deeper than 1.5m shoring should be used. The Employer Clerk of Works or the Employer representative shall approve all pole foundations and/or hole before the contractor backfills. NB: If the Contractor is planning to use a batching plant not located in the construction camp, the cost due to transporting the concrete from the batching plant to the construction camp shall be at the expense of the contractor.

- Excavation shall include:
 - Excavations shall include digging and drilling holes of between 0.8m – 2m for normal applications and >2m for special applications as in D-DT-0332.
 - All excavations shall be kept covered or barricaded, if not attended to, in a manner accepted by Employer to prevent injury to people or livestock.
 - The *Contractor* shall notify the *Clerk of Works* upon completion of the excavation for the pole foundation. No shuttering, reinforcing steel or concrete shall be placed until the *Clerk of Works* has inspected the excavations and acknowledge his approval.
 - Removal of excavated Black Turf or any other soil unsuitable for backfilling and transporting it to borrow pits.
 - The excavated material shall be disposed of in borrow pits or a suitable place, indicated by the Employer site representative or the Employer environmental representative.
 - The *Contractor* shall make his own arrangements for the provision to dispose of the excavated material on such a disposal place.
 - Free haul shall be the distance within a radius of 1.5km from the pole position.
 - Limited haul shall be the first 1km beyond the end of the free haul distance by the shortest practicable route.
 - Long haul shall be the remainder of the distance beyond the limited haul by the shortest practicable route.
- Backfilling shall include:
 - Compacting the excavated pole hole where for normal application backfill material will be used.
 - For special applications where the pole planting depth exceeds 2m, backfilling shall include the use of soil cement to reinforce the pole foundation.
- ❖ Importing soil shall include:
 - The *Contractor* shall be responsible for supplying imported soil. If not otherwise specified, the imported soil shall be in accordance to SANS 1200.
 - The imported soil shall not contain notable quantities of organic matter or stones of average dimension exceeding 150mm.
 - Transporting imported soil from borrow pits to pole position.
 - In areas where the excavated soil is Black Turf, imported soil shall be used for the soil/cement mixture.
 - The *Contractor* shall make his own arrangements for the provision of a suitable borrow-pit for importing soil.
 - Free haul shall be the distance within a radius of 1.5km from the pole position.
 - Limited haul shall be the first 1km beyond the end of the free haul distance by the shortest practical route.
 - Long haul shall be the remainder of the distance beyond the limited haul by the shortest practical route

1.5 MV overhead distribution system, which includes stringing, jointing, damage repair and making off of conductors.

- All labour cost shall be included in quoted rate.
- All joints and connections shall be the compression type and shall comply with the requirements of Eskom standard **SCSSCAAG5**.
- Copies of calibration certificates, test reports, etc. for all the instruments and equipment used in the stringing and regulation process shall be submitted to Employer for review.
- Unless otherwise specified, *Contractor* to supply all nuts, washers, bolts needed for the works.

- Stringing conductors shall include:
 - Conductors shall not be left in contact with the ground, vegetable matter or any conducting or semi-conducting material.
 - Wood lagging shall be used to protect the conductor when working at ground level.
 - Where temporary stays are required, the *Contractor* shall be responsible for making the suitable arrangements.
- Conductor joints shall include:
 - Only persons who have passed *Employer* approved compression jointing training and have proof of this are permitted to perform this work on the *Employers* network.
 - Each coded jointer shall further be issued with his own unique identification number or sign, which he shall use to punch completed joints as a register of his acceptance.
 - The number of joints over the total length of the line shall be kept to a minimum.
 - Joints shall not be installed in spans crossing railways, proclaimed roads, power or communication lines.
 - In no case shall there shall be more than one joint in a given span.
 - Joints shall not be installed in spans that are dead-ended at both ends.
 - No joint shall pass through a stringing pulley.
 - Joints shall, as far as possible, be made in the middle third of a span. No joint shall be placed within 20m of a structure.
- Conductor damage repair shall include:
 - Damage to conductors caused by the *Contractor* shall be repaired in a manner determined by *the Clerk of Works*, at the expense of the *Contractor*.
 - Where there is repeated damage in the same span, or in consecutive spans, the entire conductor in such spans shall be replaced.

1.6 Earthing

Standard Earth electrode to be used at all Pole mounted Trfr's. Should site conditions not allow for the Standard Earth electrode then Alternative 1 is to be used, should site conditions not allow for Alternative 1 to be used, then Alternative 2 is to be used.					
Should 30 ohms not be obtained then the project is not to be commissioned and the Project Engineer is to specify the required earth Electrode that is then to be installed.					
Standard earth electrode configurations for 30 ohm resistance where $\rho = 300$		Alternative earth electrode configurations for 30 ohm resistance where $\rho = 300$		Alternative earth electrode configurations for 30 ohm resistance where $\rho = 300$	
Standard		Alternative 1		Alternative 2	
Main earth electrode		Electrode with earth spikes		Electrode without earth spikes	
Description	Main earth electrode	Description	Main earth electrode		
Electrode type	1	Electrode type	1		
Electrode configuration	Three point star	Electrode configuration	Right angle turn or in-line	Electrode without earth spikes	
Applicable soil resistivity at a depth of 0,5 m to 1,5m (r in Ohm m)	$\rho = 300$	Applicable soil resistivity at a depth of 0,5 m to 1,5m (r in Ohm m)	$\rho = 300$	Applicable soil resistivity at a depth of 0,5 m to 1,5 m (r in Ohm m)	$\rho = 300$
Electrode dimensions (m)		Electrode dimensions (m)		Electrode dimensions (m)	
— Trench depth (minimum)	0,5	— Trench depth (minimum)	0,5	— Trench depth (minimum)	0,5
— Radial length (L)	5,0	— Radial length (L)	8,0	— Radial length (L)	19,0
— Rod length	1,5	— Rod length	1,5		
— Rod separation distance	5,0	— Rod separation distance	8,0		
Number of rods	4	Number of rods	3	Number of rods	N/A
Diagrammatic representation		Diagrammatic representation		Diagrammatic representation	
NOTE: Each main earth electrode type is designed for the indicated soil resistivity value. Where intermediate resistivity values are encountered, an electrode designed for the next higher resistivity value shall be installed.					
NOTE 1: The earth lead from the equipment should preferably be connected to the centre of the electrode to provide the best current distribution in the electrode under fault and lightning discharge conditions.					
NOTE 2: The buried horizontal electrode in alternative 2 is suitable for areas where it is difficult to install earth rods.					

2 SAFETY RISK ANALYSIS SPECIFICATIONS

2.1 Procedures

All Safe Work Procedures must be adhered to. Special attention must be given to the following procedures:

- Stringing (Tension and Terminate)
- Dismantling of MV and LV overhead power lines
- Stringing of conductors across a road
- How to do closing span on existing/new lines
- Outages

The following sections are extracts from the above procedures.

2.2 Stringing (Tension and Terminate)

2.2.1 Definition

Stringing means the tensioning and termination of conductors in the prescribed manner and specifications.

2.2.2 Dangers

- Falling objects
- Workmen can fall from towers
- Induction from other lines
- Traffic-Roads and/or railway

2.2.3 Procedure

- The equipment and methods used for stringing the conductors (including earth conductors) shall be such that the conductors will not be damaged. Particular care shall be taken at all times to ensure that the conductors do not become kinked, twisted or abraded in any manner.
- Stringing shall be done in daylight hours only.
- Tensions, while pulling, must be sufficient to clear all obstacles safely without damage to the conductor. At no time shall the pulling tension exceed the tension shown on the sag charts.
- Adequate protection shall be provided where there may be danger of a conductor being crossed over by vehicles, or damaged by other equipment and objects.
- Radio communications shall be used to relay information and instructions between the conductor tensioning station, intermediate check points, mobile stations and the pulling station at all times during the stringing-tensioning operation.
- Whenever joints or dead-ends are made, auxiliary erection clamps and hauling devices shall not be placed closer than 8m to the point of joint or dead-end.
- The conductor shall be cut with a ratchet or guillotine cutter to produce a clean cut, retaining the normal strand lay and producing minimum burrs. The aluminium strands shall then be stripped from the steel core by using an acceptable stripper. Under no circumstances shall high tensile hack-saw blades be used to cut conductor.
- The contractor shall string all conductors and earth conductor to the appropriate sags and tensions as determined from the conditions specified in the contract documents.
- Conductors and earth conductors shall be strung to the appropriate sag determined for the actual span length, and the equivalent span of the strain section involved.
- The contractor shall provide, and maintain in good condition, suitable dynamometers, sag boards or other accepted apparatus for the proper checking of the work. Dynamometers shall read in Newtons and shall be tested and re-calibrated at regular intervals
- In pulling the conductor, caution shall be used to avoid pulling the conductor above sag.
- All conductors, except for conductors in sag sections over flat terrain, shall be plumb-marked at each structure for the complete section regulated, before clamping-in or dead-ending of the conductor is begun.

2.3 Dismantling of MV and LV overhead power lines

2.3.1 Definition

Dismantling means to break down redundant structures in a safe way under dead conditions.

2.3.2 Dangers

- Falling from heights
- Induction from other lines
- Electrical contact with other lines
- Falling objects

2.3.3 Procedures

- Ensure that the system is isolated and earthed.

- Disconnect the line to be dismantled (redundant line) from the network by cutting away the first span to create a visible gap.
- Ensure that working earths are applied on the line to be dismantled (redundant line).
- Ensure that existing poles are not rotten.
- If poles are rotten refer to procedure -----.
- Cut and remove all earth wires on the overhead line.
- Remove software from all attachment points on intermediate poles.
- Lay conductor on cross arm or insulated spindle.
- Cut off the conductor at the straining points.
- Ensure that the worker doing the cutting is clear of the cross arm, to avoid injuries in case of the cross arm swinging.
- Coil the conductor.
- Remove insulators from structures, where applicable.
- Cut off stay wires at attachment point at stay rod.
- Remove poles and backfill holes.
- Dismantle hardware from structures.
- Recover stay rod and backfill hole.
- If stay rod is not recovered, stay rod must be cut off at least 500mm under ground level.
- All recovered material must be returned to stores.

2.4 Stringing of conductor across a road

2.4.1 Definition

Stringing means the tensioning and termination of conductors in the prescribed manner and specifications.

2.4.2 Dangers

- Traffic/Pedestrians
- Falling from heights
- Falling objects
- Hand injuries

2.4.3 Procedures

- Assign workers with red flags and road signs to strategic points on either side of the road crossing position.
- The assistance of the Traffic Department can be requested where national roads are involved.
- Regulate traffic as required to execute the work safely.
- Run out conductor as per procedure.
- String conductor as per procedure.
- Tension and sag conductor as per procedure.
- Ensure correct clearances are obtained as indicated on profile.
- Recall workers with flags and road signs.

2.5 How to do closing span on existing/new lines

2.5.1 Definition

Closing span means the connection of newly built lines onto an existing live line.

2.5.2 Dangers

- Energised overhead power lines

- Falling objects

2.5.3 Procedures

- Ensure existing live line is isolated and earthed in accordance with Reg. 5.04.5 (HV Regs).
- Dress the existing pole with the necessary hardware.
- String conductor according to Procedures.
- Install jumpers according to procedure.
- Remove all personnel, equipment and tools.
- Cancel permit (if issued).

2.6 Outages

2.6.1 Definition

Outages mean the switching off of all sources of supply of power so that work can be done on a specific point or apparatus.

2.6.2 Dangers

- Switching, linking and earthing errors
- Static
- Fall from heights
- Falling objects
- Weather (e.g. lightning)
- Back feed through network
- Work on wrong line

2.6.3 Procedure

Prior to outage date

- Ensure work planning is complete and reflected in the duration of outage required.
- Supervisor liaise with Project Management timeously to allow a 14 day notification period to regional control liaison may occur on site with all stake holders present. A date, time and duration is set and minuted.

On outage date

- O&M represented by the Appointed Operator performs the required operating. Makes the area required safe for work and issues a work permit to Construction's appointed Responsible Person.
- Responsible Person ensures asset to be worked on is safe according to regulations and accepts the permit by signing as Responsible Person.
- Responsible Person informs all Construction persons under his supervision of the status of the asset as well as to their specific duties.
- Responsible Person constantly supervises to ensure adherence to ORHVS and general safe working practices during the outage period.

Completion and handing over

- Responsible Person shall ensure that all elements of the asset are as per contract requirement and that all materials, personnel, equipment and machinery are removed to enable safe operation of the asset.
- Responsible Person hands back the asset to the Appointed Operator by signing off the permit after which the Appointed Operator will carry out his function. This is also done in liaison with regional control. In the case of a new asset being put into operation, a handing over certificate to O&M by Project Management.

2.7 200kVa Pole Mounted Meter kiosk specification

TECH. DESCRIPTION:

METER KIOSK : PHASE QUANTITY: 3PH; SUPPLY: 200 KVA; TYPE: LPU PM; MATERIAL: 3CR12; POWDER COATED; COLOR: LIGHT NAVY GREY- C35 TO SANS 1091; STANDARD: ESKOM: 240-76628117; POLE/GROUND MOUNT FOR 200KVA LARGE POWER USERS; FULLY FITTED WITH ALL AUXILIARY EQUIPMENT AS PER D-1000; EXCLUDING METER; INCLUDING 300A THREE POLE MOULDED CASE CIRCUIT BREAKER, BUSBARS, INSULATORS, CTS (300-5A), FUSE HOLDERS AND FUSES, TEST BLOCKS, 230V SURGE ARRESTORS, WIRING AND TERMINALS; INDELIBLE MNFRS. TRADEMARK AND PART NO. ON ALL ITEMS; DRAWING NO: D3236; MNFR DRG: D-1000; CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER

3 FINAL INSPECTION, TAKING OVER OF THE WORKS AND CLEARING OF SITE

- a) "As Build" drawings will be required for this project.
- b) During final inspection, the Project Manager or his representative will ensure that a quality control check will be completed and signed by all the interested and affected parties. Only after signing of this document, will the site be handed over for Commercial Operation.
- c) Removal of site office and stores and discontinuation of services provided for the site office.
- d) Clearing of all rubble, waste and rubbish, resulting from the construction activities, removal from site and re-instatement of terrain.
- e) Removal of all excess material (Copper, etc.) from site and returning of such material to the nearest stores of Enoch Mgijima Local Municipality.
- f) All the parties concerned at the completion of the works, prior to the taking over of the works, will hold a final inspection.

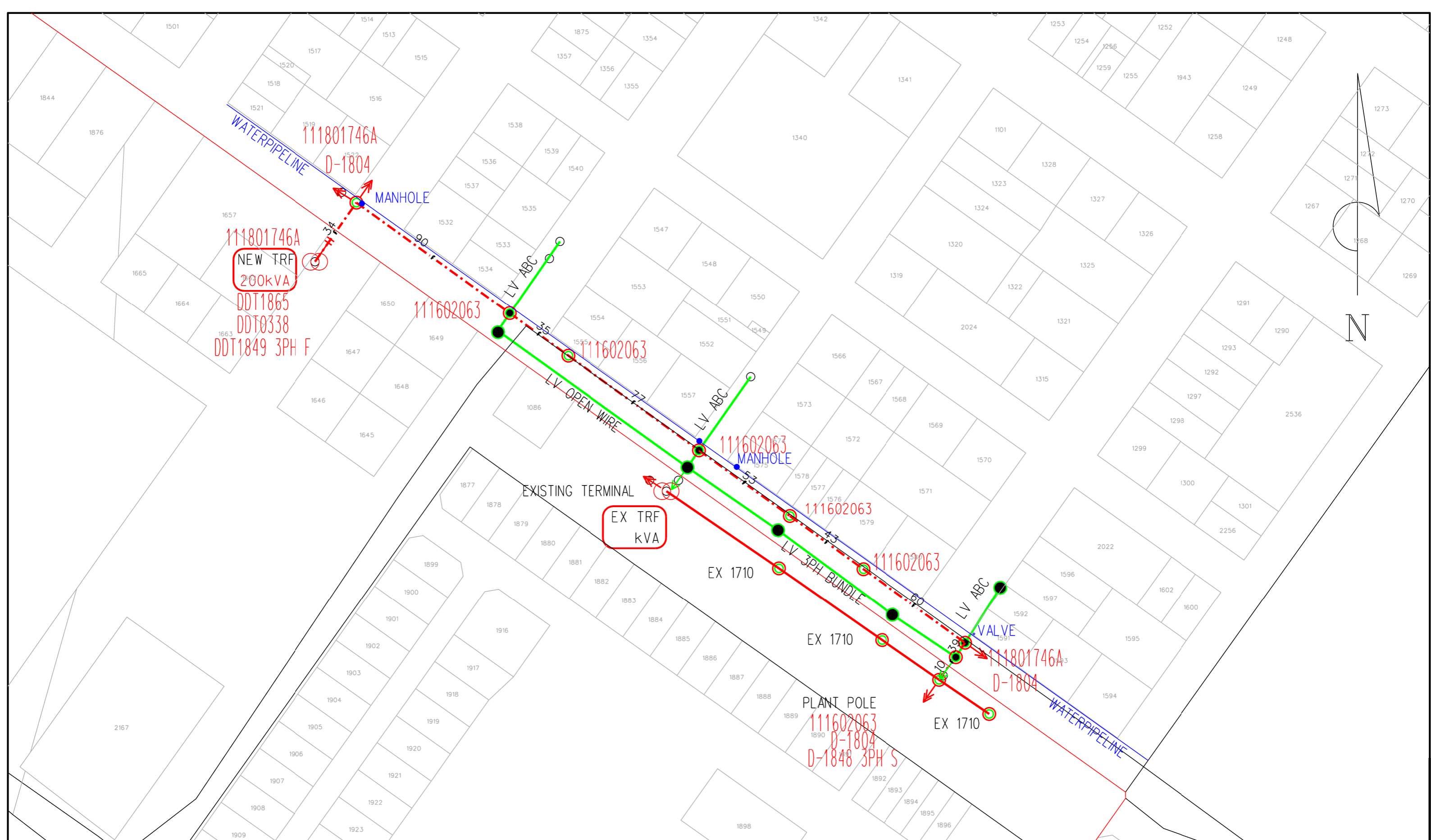
3.2 Eskom Material List.

- **DDT3236 Sheet 16 of 36 revision 17**
- **ECOU material list**

Note: The ECOU material list is in excel and will be made available electronically

ANNEXURE 1: DETAILED DESIGN DRAWINGS

No	Drawing Title	Drawing Number	Rev
1	Martje Venter Supply Upgrade	ECDOH-MVH-01	00
2	DDT Drawings (assembly, Foundation and Structure)	Different DDT Drawing Numbers	Variety



MJT
CONSULTING ENGINEERS 01 (PTY) LTD
 TEL. 083 352 1906
 EMAIL. lengoaf@gmail.com

FEEDER:	Tsolwana/Tarkastad Munic 122kV Overhead Line
DATE:	03 MARCH 2026
CONDUCTOR:	FOX
LENGTH OF LINE:	0.450 km.
SURVEYOR:	GUGULETHU ZOLA
DESIGNED By:	Fang Lengoasa

CUSTOMER:	ECDOH
PROPERTY:	VARIOUS
PAPER SIZE :	A3
DRAWING TITLE:	MARTJIE VENTER POWER SUPPLY UPGRADE
SCALE:	1:2 500
DRAWING NUMBER:	ECDOH-MVH-01
REV	00

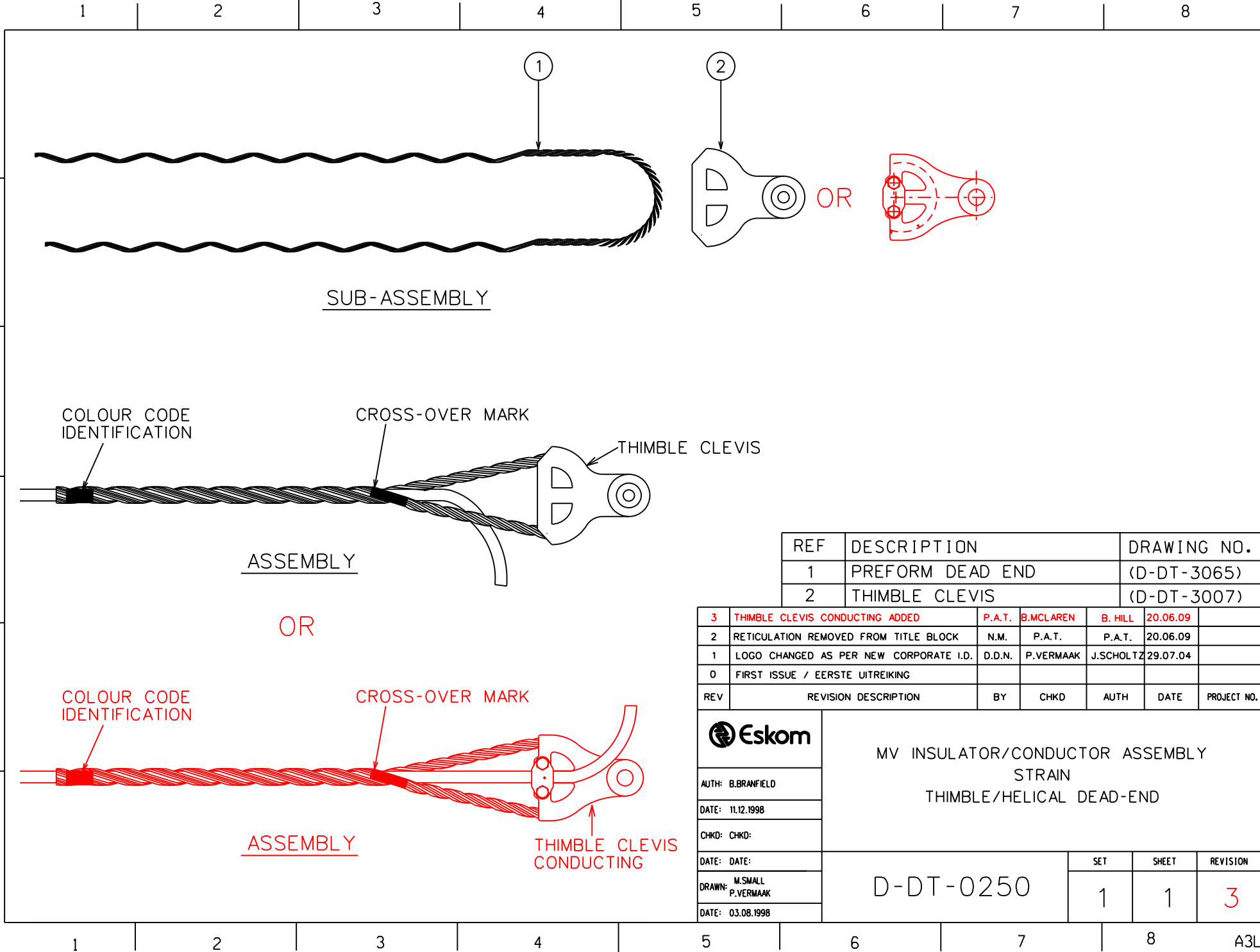
ANNEXURE 3: DISTRIBUTION TECHNOLOGY STANDARDS AND MATERIAL LIST

3.1 Applicable Eskom DDT Drawings

SUMMARY OF ASSEMBLY DRAWINGS REQUIRED ON MARTJIE VENTER SUPPLY UPGRADE				
Drawing Number	Revision	Title	AFU(Y/N)	Sheet No(s)
D-DT-0250	3	MV-Insulator Assembly Strain Thimble/Helical Dead-End	Y	1
D-DT-0251	3	MV-Insulator/Conductor Assembly Strain pistol grip	Y	1
D-DT-0256	4	MV-INSULATOR/CONDUCTOR ASSEMBLY - POSTS - TOP GROOVE TIE - TOP TIE (FOR COASTAL APPLICATIONS)	Y	1
D-DT-0257	3	MV insulator conductor assembly-posts-road crossing full wrap top groove tie-sheet 1	Y	1
D-DT-0259	3	MV-Side Groove Tie – Post Insulator/Conductor Assembly	Y	1
D-DT-0261	4	MV Reticulation Equipment Mounting Assembly Surge Arresters	Y	1
D-DT-0271	4	MV Reticulation Equipment Mounting Assembly Single Platform (sheet 1)	Y	1
D-DT-0290	2	MV-Fuse Cut-Out Assembly – Wood X-Arm	Y	1
D-DT-0310	6	Insulation coordination Wood Poles Intermediates	Y	1 to 3
D-DT-0311	3	Phase Configuration 3 phase (sheet 1)	Y	1 to 2
D-DT-0312	10	MV Stay attachments-Angle Structures	Y	1,2,5
D-DT-0316	6	MV Strain Assembly (600mm phase spacing) 2500 wood cross-arm/pole	Y	1
D-DT-0338	3	GROUND <CROSSARM) MOUNTED SMALL POWER USER OUTDOOR SUPPLY	Y	2 of 6
D-DT-0341	17	Stay assembly details	Y	1 to 2
D-DT-0342	4	Strut assembly details	Y	1 to 2
D-DT-0373	4	Strain Assembly Wood X-Arm Eyebolt	Y	1
D-DT-0375	2	MV terminal assembly- wood cross-arm eyebolt	Y	1
D-DT-0399	7	MV equipment mounting assembly anti-climbing device-barbed wire	Y	1 to 2
D-DT-0627	7	Transformer Earthing	Y	1 to 2
D-DT-0642	5	MV & LV earth electrode details	Y	1 to 4

SUMMARY OF ASSEMBLY DRAWINGS REQUIRED ON MARTJIE VENTER SUPPLY UPGRADE				
Drawing Number	Revision	Title	AFU(Y/N)	Sheet No(s)
D-DT-0350	13	Stay Rod Installation	Y	1-3
D-DT-0330	6	Pole foundation arrangement	Y	1
D-DT-0332	8	Pole Planting Depth Details	Y	1

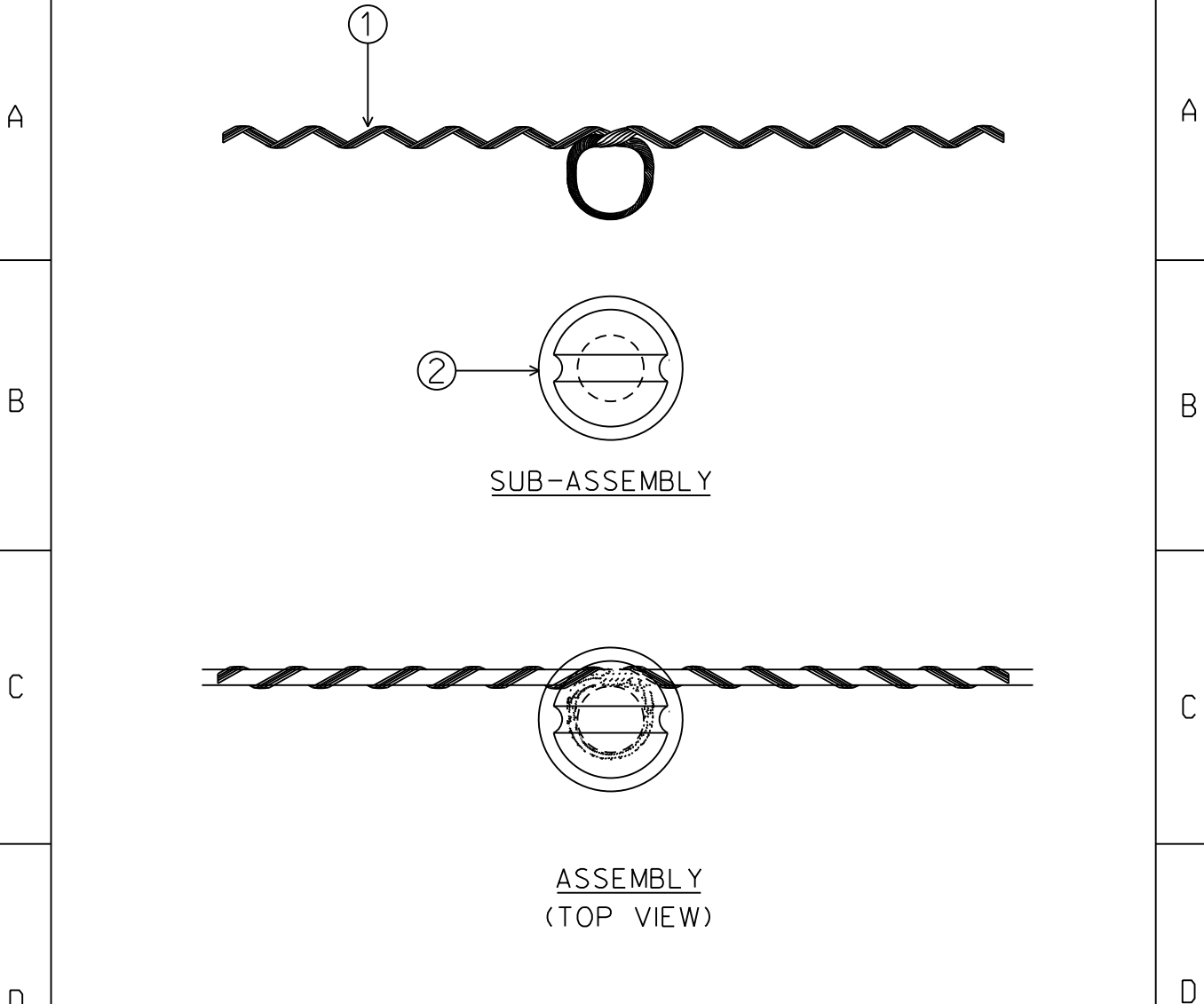
SUMMARY OF ASSEMBLY DRAWINGS REQUIRED ON MARTJIE VENTER SUPPLY UPGRADE				
Drawing Number	Revision	Title	AFU(Y/N)	Sheet No(s)
D- EC 2063	1	MV-A Frame intermediate	Y	1 to 2
D-DT-1746A	0	MV Strain – terminal	Y	1
D-DT-1804	3	MV T-off 2.5m cross arm	Y	1
D-DT-1848	1	MV section links cut/outs or Disconnections-2.5m wooden cross-arm/single pole	Y	1
D-DT-1849	1	MV equipment links cut/outs or Disconnections-2.5m wooden cross-arm/single pole	Y	1
D-DT-1865	6	MV PLATFORM TRANSFORMERS POLE PLATFORM MOUNTED 200kVA< (OUT OF LINE 2 POLE GENERAL ARRANGEMENT)	Y	1



REF	DESCRIPTION	DRAWING NO.
1	PREFORM DEAD END	(D-DT-3065)
2	THIMBLE CLEVIS	(D-DT-3007)

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
3	THIMBLE CLEVIS CONDUCTING ADDED	P.A.T.	B.MCLAREN	B. HILL	20.06.09	
2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	20.06.09	
1	LOGO CHANGED AS PER NEW CORPORATE I.D.	D.D.N.	P.VERMAAK	J.SCHOLTZ	29.07.04	
0	FIRST ISSUE / EERSTE UITREIKING					

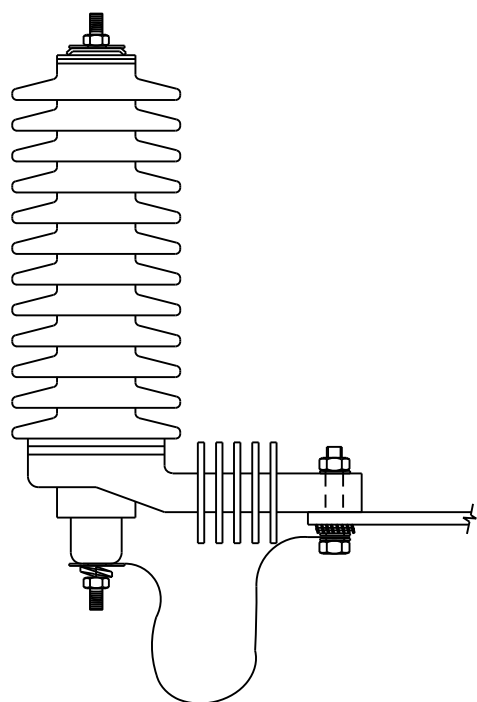
	MV INSULATOR/CONDUCTOR ASSEMBLY STRAIN THIMBLE/HELICAL DEAD-END			
	AUTH: B.BRANFIELD			
	DATE: 11.12.1998			
	CHKD: CHKD:			
DATE: DATE:	D-DT-0250	SET	SHEET	REVISION
DRAWN: M.SMALL P.VERMAAK		1	1	3
DATE: 03.08.1998				



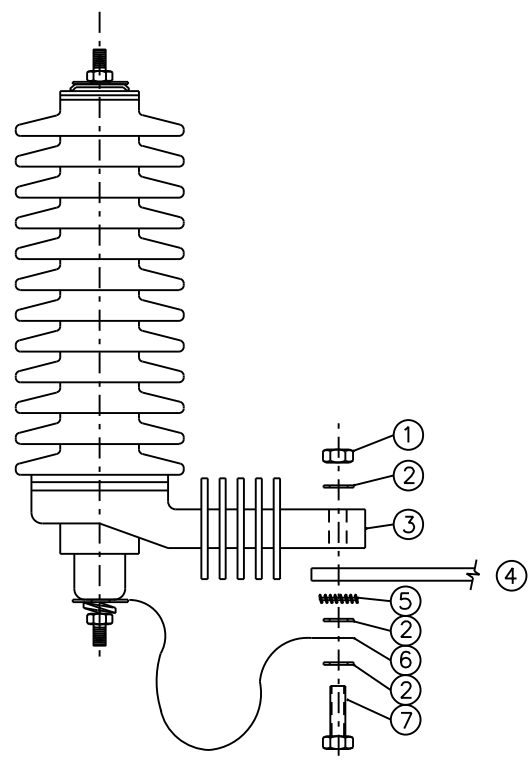
REF	DESCRIPTION	DRAWING NO.
1	SIDE GROOVE TIE	(D-DT-3080)
2	22kV POST INSULATOR 33kV POST INSULATOR	(D-DT-3017) (D-DT-3189)

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
3	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	20.06.09	
2	SIDE GROOVE TIE DRG. NO. CORRECTED	P.A.V.	P.A.V.	P.A.V.	24/08/2006	
1	CUSHION PAD REMOVED	P.A.V.	B. HILL	B. HILL	01/08/2003	

		MV INSULATOR / CONDUCTOR ASSEMBLY POSTS - SIDE GROOVE TIE - (SIDE TIE)				
AUTH: B.BRANFIELD						
DATE: 11/01/1999						
CHKD: B.BRANFIELD						
DATE: 11/01/1999		SET	SHEET	REVISION		
DRAWN: M.SMALL P.A.VERMAAK		1	1	3		
DATE: AUG 1998						



ASSEMBLY



SUB ASSEMBLY

REF.	DESCRIPTION	NOTE :
1	M12 NUT	ALL ITEMS TO BE SUPPLIED WITH THE SURGE ARRESTER D-DT-3100.
2	M12 FLAT WASHER	
3	SURGE ARRESTER MOUNTING ARM	
4	AUXILIARY EQUIPMENT BRACKET	
5	SERRATED EDGE WASHER	
6	FLEXIBLE GROUND LEAD	
7	M12x50 BOLT	

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
4	DOUBLE SA MOUNTING BRACKET REMOVED USE D-DT-0266 FOR DOUBLE SA MOUNTING.	P.A.V.	R. THERON		16.07.08	
3	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P. TRUBLET		27.06.09	
2	DOUBLE SA MOUNTING BRACKET ADDED. REV. 1 THE DOUBLE SA BRACKET NEVER FINALISED.	P.A.V.	G. STANFORD		12/12/05	

	MV EQUIPMENT MOUNTING ASSEMBLY SURGE ARRESTER				
					AUTH: P. CROWDY
					DATE: 06.12.2000
					CHKD: R. THERON
DATE: 06.12.2000	D-DT-0261	SET	SHEET	REVISION	
DRAWN: P.A.V.		1	1	4	
DATE: 30.08.2000					

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

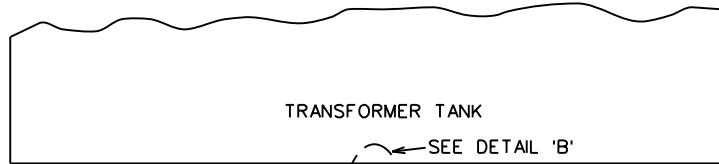
B

C

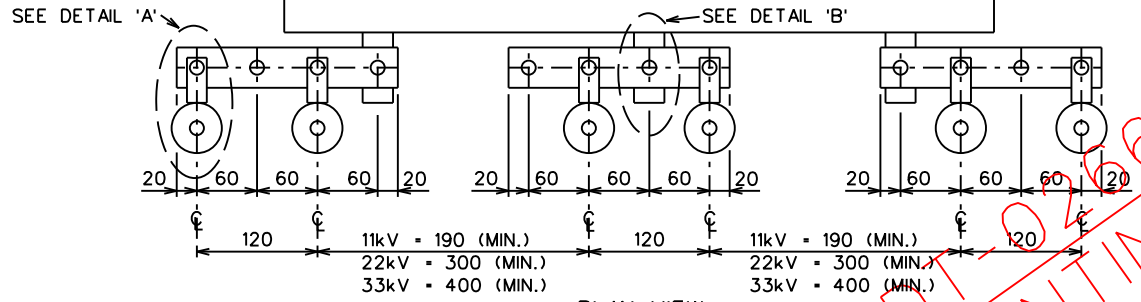
D

E

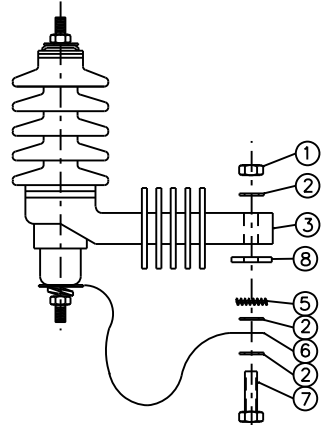
F



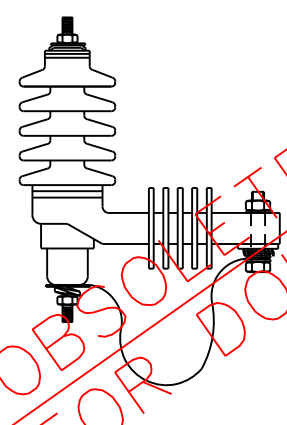
NOTE :
PARALLEL SURGE ARRESTERS
MUST BE OF THE SAME TYPE.



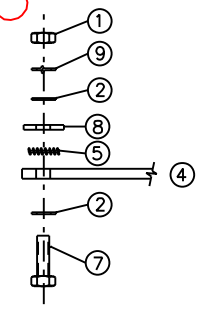
PLAN VIEW
SURGE ARRESTER
ASSEMBLY



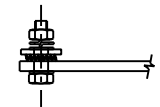
SURGE ARRESTER
SUB ASSEMBLY
DETAIL 'A'



SURGE ARRESTER
ASSEMBLY



BRACKET MOUNTING
SUB ASSEMBLY
DETAIL 'B'



BRACKET MOUNTING
ASSEMBLY

OBSOLETE USE D-DT-0266 FOR DOUBLE SA MOUNTING

S.A. ASSEMBLY (DETAIL 'A')		
REF.	DESCRIPTION	NOTE :
1	M12 NUT	NOTE : ITEMS 1-7 TO BE SUPPLIED WITH THE SURGE ARRESTER D-DT-3100. D-DT-3227
2	M12 FLAT WASHER	
3	11 x 22kV SURGE ARRESTER - MOUNTING ARM	
5	SERRATED EDGE WASHER	
6	FLEXIBLE GROUND LEAD	
7	M12x50 BOLT	
8	DOUBLE SA MOUNTING BRACKET	

DOUBLE S.A. BRACKET ASSEMBLY (DETAIL 'B')		
REF.	DESCRIPTION	NOTE :
1	M12 NUT	NOTE : ALL ITEMS TO BE SUPPLIED WITH THE SURGE ARRESTER D-DT-3227
2	M12 FLAT WASHER	
4	AUXILIARY EQUIPMENT BRACKET	
5	SERRATED EDGE WASHER	
7	M12x50 BOLT	
8	DOUBLE S.A. MOUNTING BRACKET	
9	SPRING WASHER	

4	DOUBLE SA MOUNTING BRACKET REMOVED USE D-DT-0266 FOR DOUBLE SA MOUNTING.	P.A.T.	R. THERON	16.07.08		
3	RETICULATION REMOVED FROM TITLE BLOCK	R.M.T.	P. TRUBLET	27.06.09		
2	DOUBLE SA MOUNTING BRACKET ADDED. REV.1 THE DOUBLE SA BRACKET NEVER FINALISED.	P.A.V.	G. STANFORD	12/12/05		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

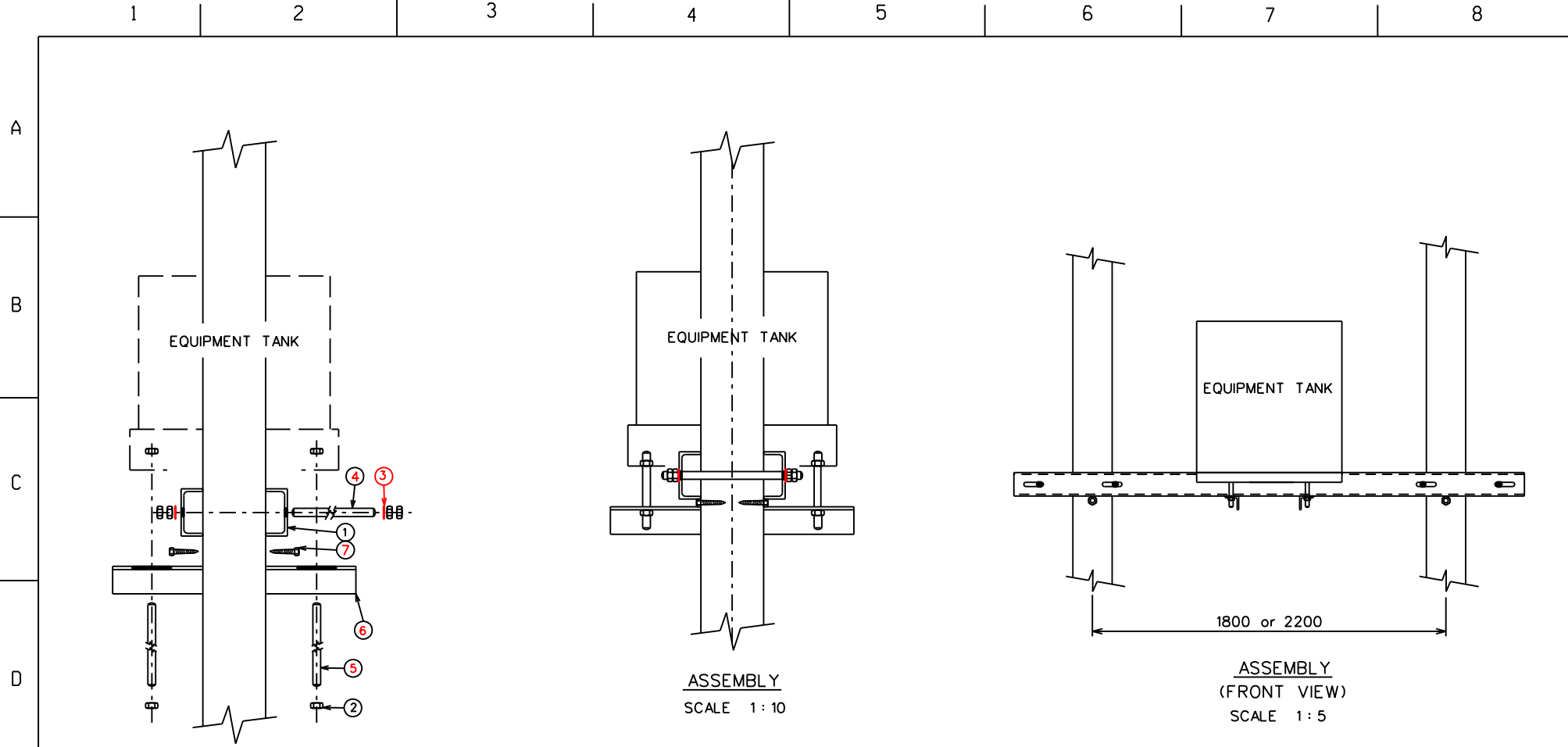


AUTH: P. CROWDY
DATE: 06.12.2000
CHKD: R. THERON
DATE: 06.12.2000
DRAWN: P.A.V.
DATE: 30.08.2000

MV EQUIPMENT MOUNTING ASSEMBLY
2 x 11kV, 2 x 22kV OR 2 x 33kV
SURGE ARRESTERS

D-DT-0261		SET	SHEET	REVISION
				4

1 2 3 4 5 6 7 8 A3L



SUB-ASSEMBLY
SCALE 1:10

ASSEMBLY
SCALE 1:10

ASSEMBLY (FRONT VIEW)
SCALE 1:5

4	M20 FLAT ROUND WASHERS CHANGED TO SQUARE WASHERS AND ALL SPRING WASHERS REMOVED ON SINGLE PLATFORM ONLY	P.A.T.	B. HILL	B. HILL	17.06.09	
3	COACH SCREWS SHOWN ON ASSEMBLY FRONT VIEW	P.A.V.	B. HILL	B. HILL	06.10.03	
2	ADAPTOR ITEM 8 ADDED FOR MAINTENANCE TRFRS	P.A.V.	B. HILL	B. HILL	17.07.03	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: B.BRANFIELD
 DATE: 11/01/1999
 CHKD: B.BRANFIELD
 DATE: 11/01/1999
 DRAWN: P.VERMAAK
 DATE: 08/10/1998

**MV EQUIPMENT MOUNTING ASSEMBLY
SINGLE PLATFORM**

D-DT-0271

SET	SHEET	REVISION
2	1	4

REF	DESCRIPTION	DRAWING NO.	REF	DESCRIPTION	DRAWING NO.
1	EQUIPMENT PLATFORM CHANNEL	(D-DT-3020)	4	THREADED ROD M20x450	(D-DT-3015)
2	NUT M20	(D-DT-3173)	5	THREADED ROD M20x350	(D-DT-3015)
3	FLAT SQUARE WASHER M20	(D-DT-3014)	6	EQUIPMENT PLATFORM ANGLE	(D-DT-3023)
			7	COACH SCREWS	(D-DT-3090)

1 2 3 4 5 6 7 8

A

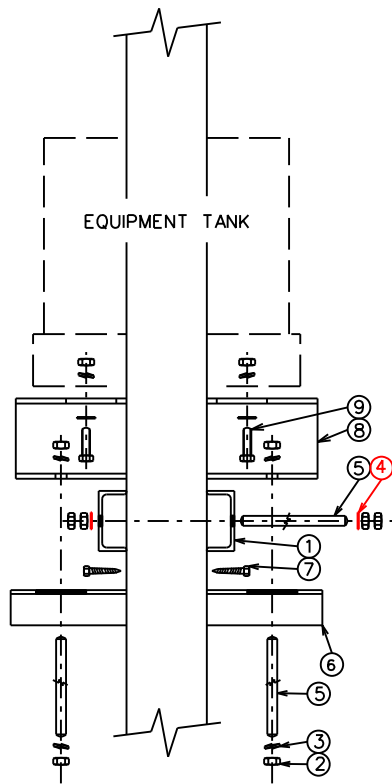
B

C

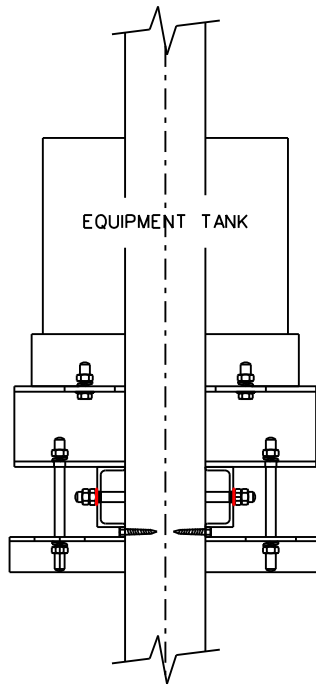
D

E

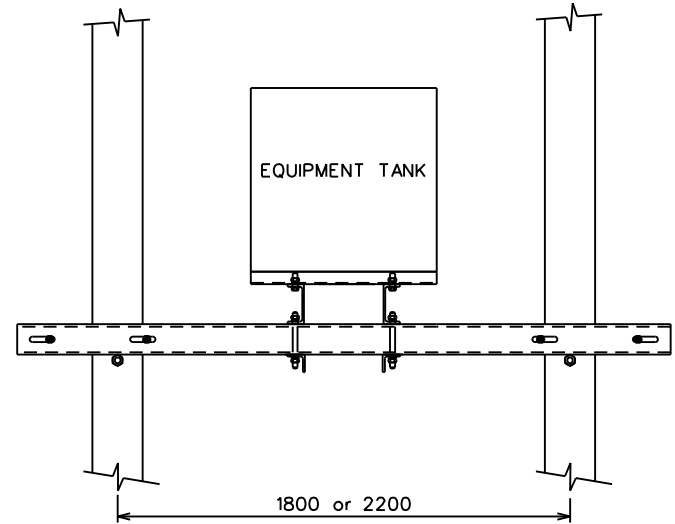
F



SUB-ASSEMBLY
SCALE 1:10



ASSEMBLY
SCALE 1:10



ASSEMBLY
(FRONT VIEW)
SCALE 1:5

NOTE : FOR MAINTENANCE PURPOSES ONLY.

REF	DESCRIPTION	DRAWING NO.	REF	DESCRIPTION	DRAWING NO.
5	THREADED ROD M20x450	(D-DT-3015)	6	EQUIPMENT PLATFORM ANGLE	(D-DT-3023)
1	EQUIPMENT PLATFORM CHANNEL	(D-DT-3020)	7	COACH SCREWS	(D-DT-3090)
2	NUT M20	(D-DT-3173)	8	TRFR. MOUNTING ADAPTOR	(D-DT-2020)
3	SPRING WASHER M20	(D-DT-3014)	9	M20x65 SET SCREWS	(D-DT-3082)
4	FLAT SQUARE WASHER M20	(D-DT-3014)			

4	M20 FLAT ROUND WASHERS CHANGED TO SQUARE WASHERS AND ALL SPRING WASHERS REMOVED ON SINGLE PLATFORM ONLY	P.A.T.	B. HILL	B. HILL	17.06.09	
3	COACH SCREWS SHOWN ON ASSEMBLY FRONT VIEW	P.A.V.	B. HILL	B. HILL	06.10.03	
2	ADAPTOR ITEM 8 ADDED FOR MAINTENANCE TRFRS	P.A.V.	B. HILL	B. HILL	17.07.03	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: B.BRANFIELD

DATE: 11/01/1999

CHKD: B.BRANFIELD

DATE: 11/01/1999

DRAWN: P.VERMAAK

DATE: 08/10/1998

MV EQUIPMENT MOUNTING ASSEMBLY
SINGLE PLATFORM WITH ADAPTOR
(FOR 25kVA AND 50kVA TRANSFORMERS)

D-DT-0271

SET	SHEET	REVISION
2	2	4

A

B

C

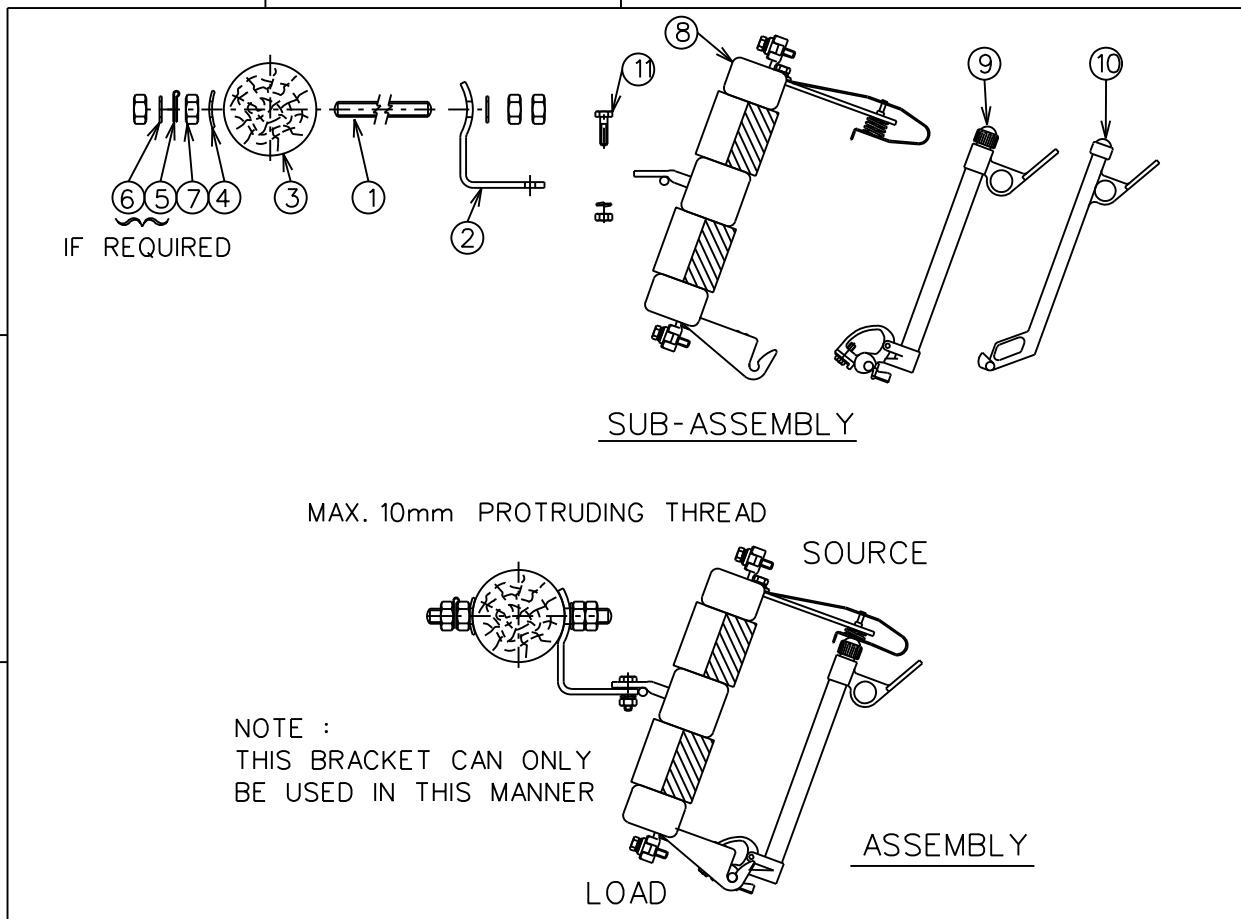
D

E

Page No. ODA10b

A3L

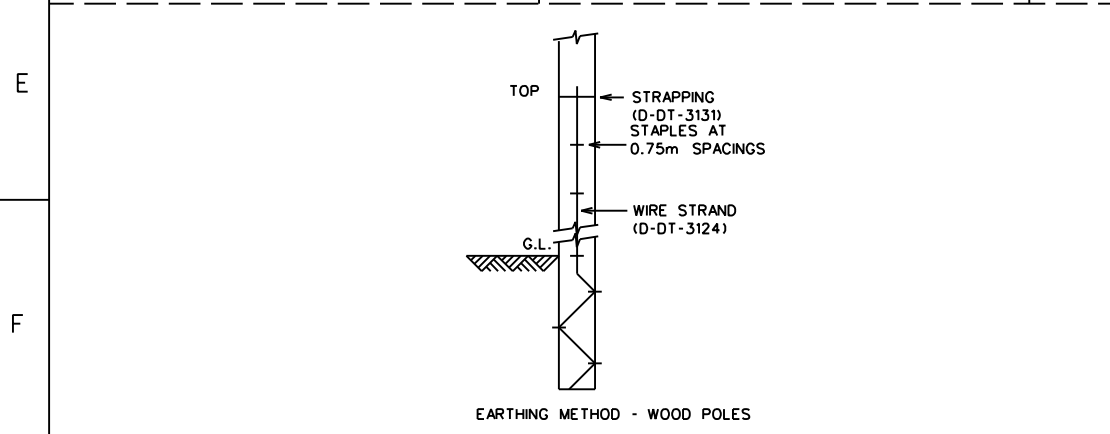
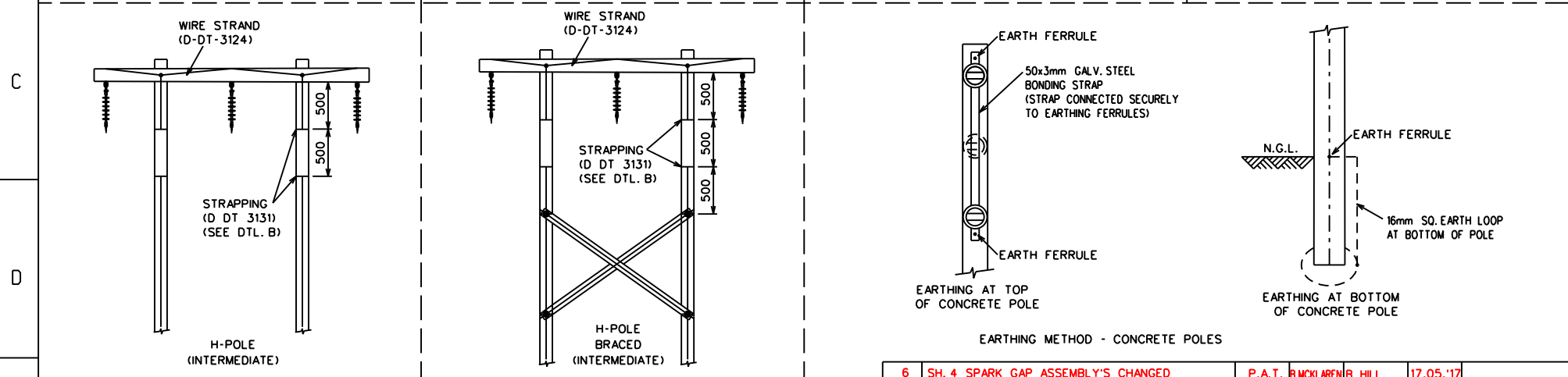
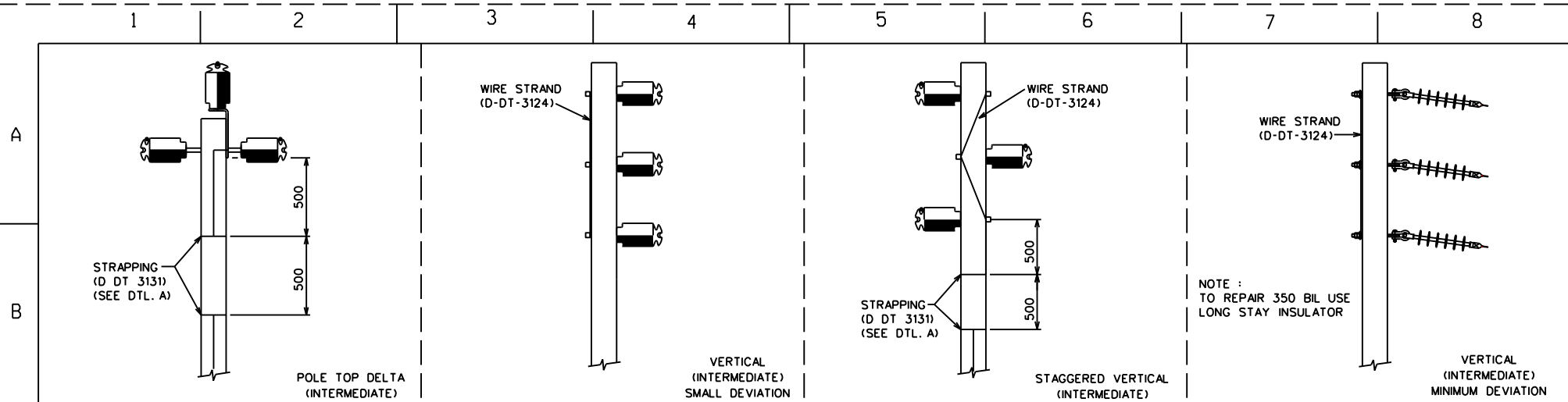
1 2 3 4 5 6 7 8



REF	DESCRIPTION	DRAWING NO.
1	THREADED ROD M20x250	(D-DT-3015)
2	'L' BRACKET	(D-DT-3086)
3	WOOD CROSSARM	
4	CURVED WASHER M20	(D-DT-3014)
5	BONDING CLIP M20	(D-DT-3033)
6	FLAT ROUND WASHER M20	(D-DT-3014)
7	NUT M20	(D-DT-3173)
8	CUT/OUT BASE	(D-DT-3086) OR (D-DT-3194)
9	FUSE CARRIER	
10	SOLID LINK	
11	MOUNTING BOLT M12x40	

2	ITEMS 1 - THREADED ROD CHANGED TO 250 LONG	P.A.T.	B. HILL	B. HILL	17.06.2009	
1	ITEMS 8, 9, 10 AND 11 SUPPLIED WITH FUSE / CUT-OUT.	P.A.V.	R.THERON	R.THERON	09.02.2004	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

		MV FUSE / CUT-OUT ASSEMBLY WOOD CROSSARM				
AUTH: B.BRANFIELD						
DATE: 11.01.1999						
CHKD: B.BRANFIELD						
DATE: 11.01.1999		SET		SHEET		REVISION
DRAWN: M. SMALL P.A.V.		1		1		2
DATE: 03.08.1998						



6	SH. 4 SPARK GAP ASSEMBLY'S CHANGED	P.A.T.	B.MCLAREN	B. HILL	17.05.'17	
5	H-POLE BRACED INTERMEDIATE STRUCTURE ADDED	P.A.T.	C.VO MERWE	B. HILL	05.10.10	
4	INSULATION COORDINATION SHOWN ON DETAIL 'A', STAYS REMOVED AND SPARK GAP DEVICE ADDED	P.A.T.	LCHRISTIANNS	B.MCLAREN	09.12.09	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

		MV INSULATION COORDINATION WOOD / CONCRETE POLES INTERMEDIATE							
						AUTH: P. CROWDY			
						DATE: MAY 1996			
						CHKD: J. SWAN			
DATE: MAY 1996				SET	SHEET	REVISION			
DRAWN: P.A.V.		D-DT-0310		4	1	6			
DATE: 18.09.1995									

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

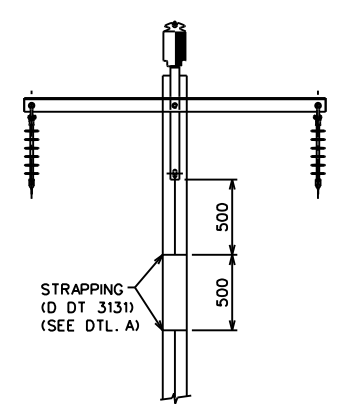
B

C

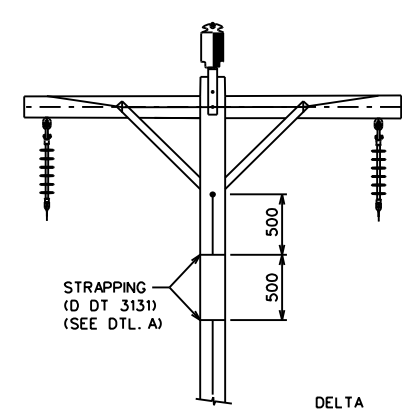
D

E

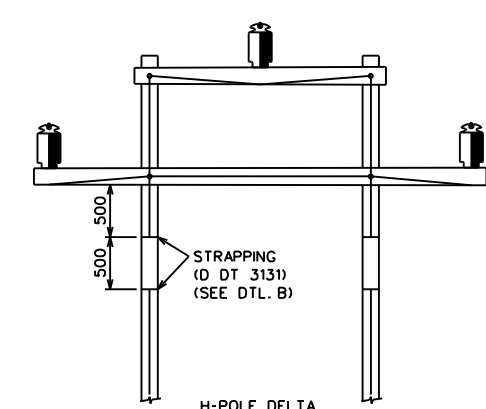
F



INTERMEDIATE
'T' STRUCTURE



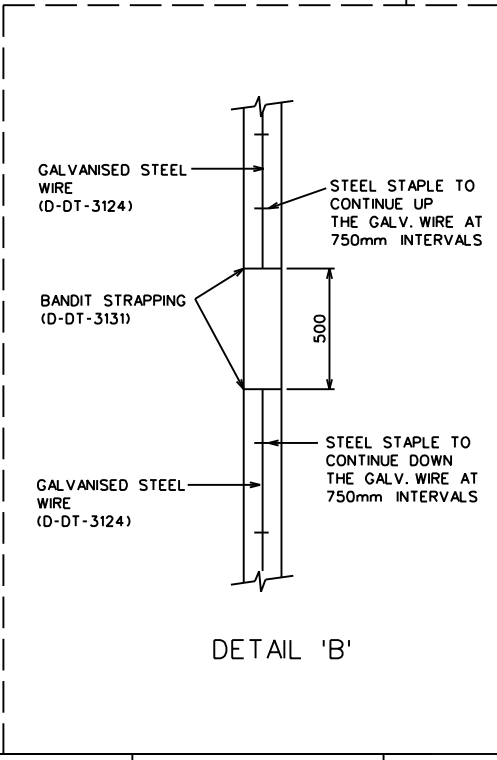
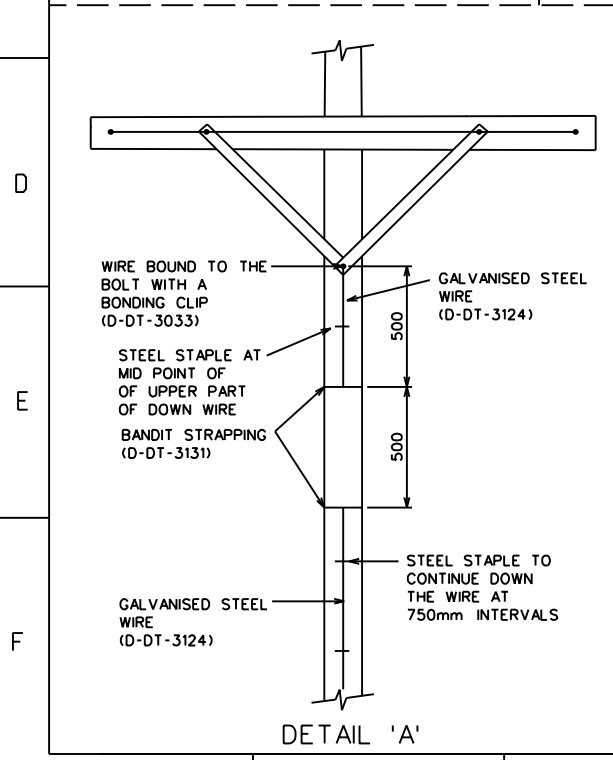
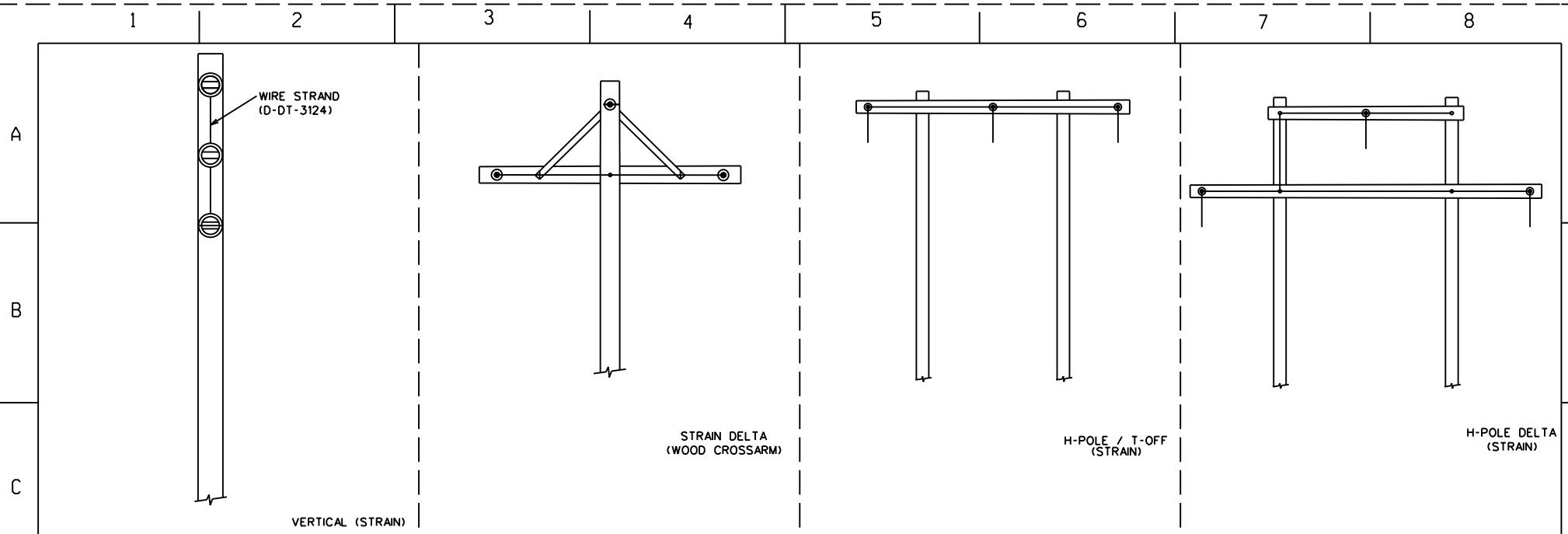
DELTA
INTERMEDIATE
STRUCTURE



H-POLE DELTA
(INTERMEDIATE)

6	SH. 4 SPARK GAP ASSEMBLY'S CHANGED	P.A.T.	B.MCLAREN	B. HILL	17.05.'17							
5	H-POLE BRACED INTERMEDIATE STRUCTURE ADDED	P.A.T.	C.VO MERWE	B. HILL	05.10.10							
4	INSULATION COORDINATION SHOWN ON DETAIL 'A', STAYS REMOVED AND SPARK GAP DEVICE ADDED	P.A.T.	LCHRISTIAN	B.MCLAREN	09.12.09							
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.						
		<p>MV INSULATION COORDINATION WOOD / CONCRETE POLES INTERMEDIATE</p> <p>D-DT-0310</p> <table border="1"> <tr> <td>SET</td> <td>SHEET</td> <td>REVISION</td> </tr> <tr> <td>4</td> <td>2</td> <td>6</td> </tr> </table>					SET	SHEET	REVISION	4	2	6
SET	SHEET						REVISION					
4	2						6					
AUTH:	P. CROWDY											
DATE:	MAY 1996											
CHKD:	J. SWAN											
DATE:	MAY 1996											
DRAWN:	P.A.V.											
DATE:	18.09.1995											

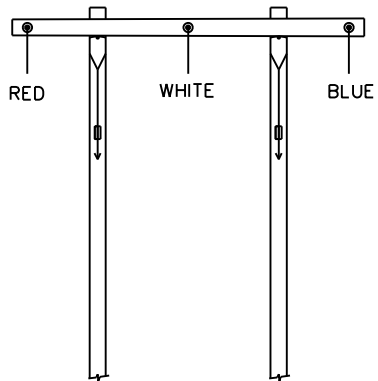
1 2 3 4 5 6 7 8 A3L



6	SH. 4 SPARK GAP ASSEMBLY'S CHANGED	P. A. T.	B. MCLAREN	B. HILL	17.05.17				
5	H-POLE BRACED INTERMEDIATE STRUCTURE ADDED	P. A. T.	C. VO MERWE	B. HILL	05.10.10				
4	INSULATION COORDINATION SHOWN ON DETAIL 'A', STAYS REMOVED AND SPARK GAP DEVICE ADDED	P. A. T.	L. CHRISTIANS	B. MCLAREN	09.12.09				
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.			
		<p>MV INSULATION COORDINATION WOOD / CONCRETE POLES STRAIN</p>				<p>D-DT-0310</p>			
AUTH: P. CROWDY							SET	SHEET	REVISION
DATE: MAY 1996							4	3	6
CHKD: J. SWAN									
DATE: MAY 1996									
DRAWN: P. A. V.									
DATE: 18.09.1995									

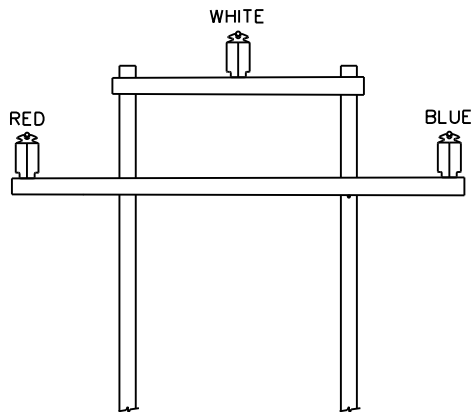
1 2 3 4 5 6 7 8

A



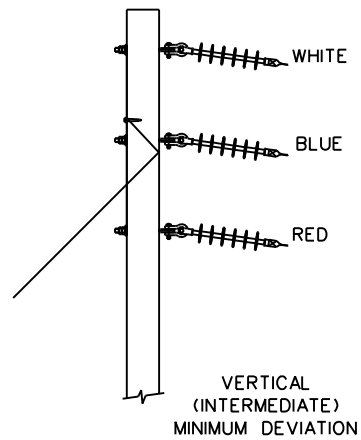
H-POLE (STRAIN UNBRACED AND BRACED))

B

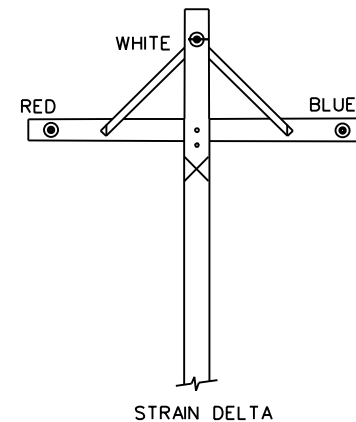


H-POLE DELTA (INTERMEDIATE)

C

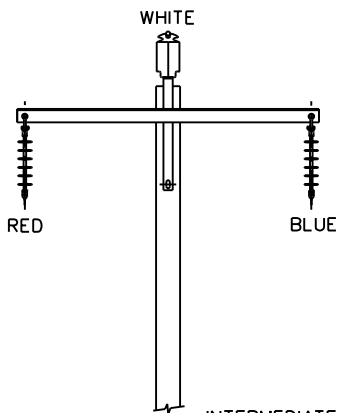


VERTICAL (INTERMEDIATE) MINIMUM DEVIATION



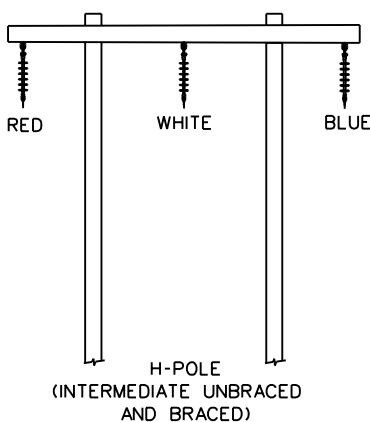
STRAIN DELTA

D



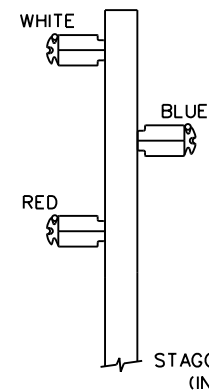
INTERMEDIATE 'T' STRUCTURE

E

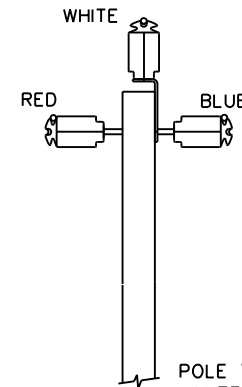


H-POLE (INTERMEDIATE UNBRACED AND BRACED)

F



STAGGERED VERTICAL (INTERMEDIATE)



POLE TOP DELTA (INTERMEDIATE)

3	NOTE ADDED RE SUBSTATION FOR D-DT-1340 / 1341	P.A.V.	C.VD MERWE	B. HILL	06.10.10	
2	LOGO CHANGED AS PER NEW CORPORATE ID	PBM	P.A.V.	P.A.V.	26.10.04	
1	H-POLE DELTA INTERMEDIATE AND PHASE PHASE CONFIGURATION ADDED	P.A.V.	B.BRANFIELD		11.01.99	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



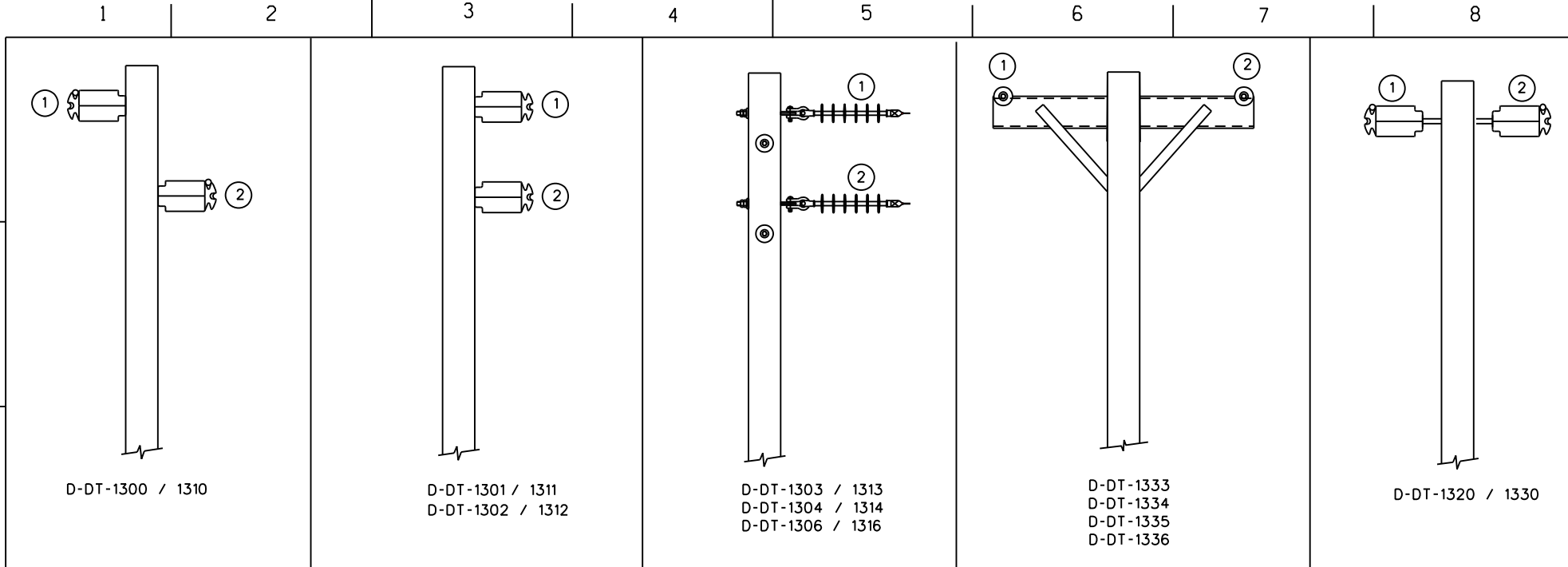
AUTH: P. CROWDY
 DATE: MAY 1996
 CHKD: J. SWAN
 DATE: MAY 1996
 DRAWN: P.A.V.
 DATE: 18.09.1995

MV RETICULATION
 PHASE CONFIGURATION
 THREE PHASE

D-DT-0311

SET	SHEET	REVISION
2	1	3

1 2 3 4 5 6 7 8 A3L



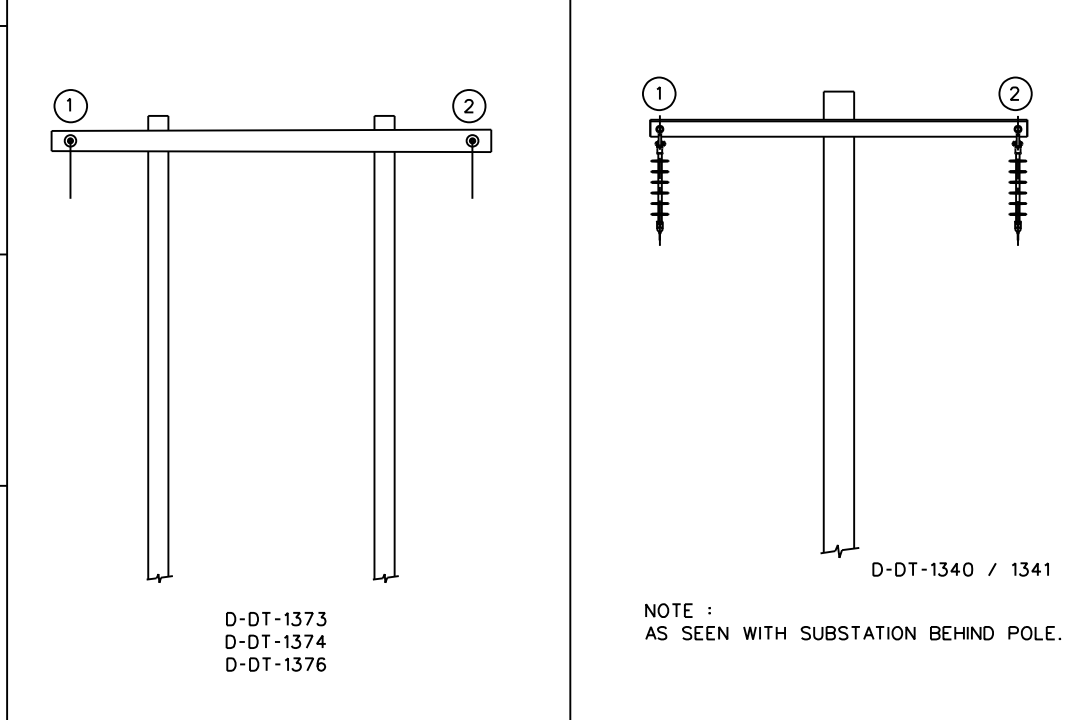
D-DT-1300 / 1310

D-DT-1301 / 1311
D-DT-1302 / 1312

D-DT-1303 / 1313
D-DT-1304 / 1314
D-DT-1306 / 1316

D-DT-1333
D-DT-1334
D-DT-1335
D-DT-1336

D-DT-1320 / 1330



D-DT-1373
D-DT-1374
D-DT-1376

D-DT-1340 / 1341

NOTE :
AS SEEN WITH SUBSTATION BEHIND POLE.

OPTIONS		PHASE	
1	1 - WHITE	2 - BLUE	
2	1 - BLUE	2 - RED	
3	1 - WHITE	2 - RED	

VERTICAL CONFIGURATION

OPTIONS		PHASE	
1	1 - RED	2 - BLUE	
2	1 - RED	2 - WHITE	
3	1 - WHITE	2 - BLUE	

HORIZONTAL CONFIGURATION

3	NOTE ADDED RE SUBSTATION FOR D-DT-1340 / 1341	P.A.V.	C.VD MERWE	B. HILL	06.10.10	
2	LOGO CHANGED AS PER NEW CORPORATE ID	PBM	P.A.V.	P.A.V.	26.10.04	
1	H-POLE DELTA INTERMEDIATE AND PHASE PHASE CONFIGURATION ADDED	P.A.V.	B.BRANFIELD		11.01.99	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

Eskom

AUTH: P. CROWDY
DATE: MAY 1996
CHKD: J. SWAN
DATE: MAY 1996
DRAWN: P.A.V.
DATE: 18.09.1995

MV RETICULATION
PHASE CONFIGURATION
PHASE PHASE

D-DT-0311

SET	SHEET	REVISION
2	2	3

NOTES:

(FOR ALL MV STRUCTURES)

1. FOR CHICADEE AND KINGBIRD USE 19/2.65 STAY WIRE AND 24mm DIAMETER HV STAYRODS MIN. 2.4m LONG.

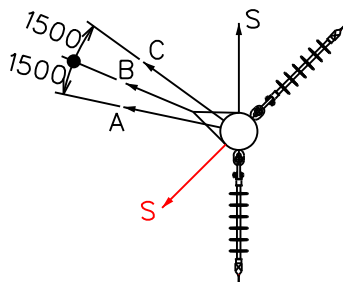
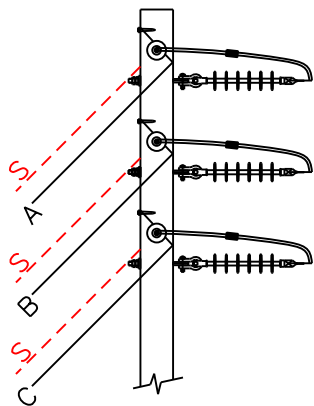
FOR FOX, MINK AND HARE USE 7/4.0 STAY WIRE AND 20mm STAY ROD 2.0m LONG.

2. S - INDICATES TEMPORY STAYS.

THEY CAN EITHER BE REMOVED OR SLACKENED IF CLEARANCE IS NOT AN ISSUE.

3. D - PERMANENT STAYS NOT TO BE REMOVED OR SLACKENED.

4. TEMPORARY 'S' STAYS TO BE CONSTRUCTED THE SAME AS PERMANENT STAYS.



1-30°	STAYS
SQUIRREL	2xS, B
FOX	2xS, B
MINK	2x2S, B
HARE	2x2S, B
CHICADEE	2x2S, A, C
KINGBIRD	2x3S, A,B,C

30-60°	STAYS
SQUIRREL	2xS, B
FOX	2xS, B
MINK	2xS, B
HARE	2x2S, A, C
CHICADEE	2x3S, A, B, C
KINGBIRD	2x4S, A, 2xB, C

60-90°	STAYS
SQUIRREL	2xS, B
FOX	2xS, B
MINK	2xS, A, C
HARE	2x2S, A, B, C
CHICADEE	2x3S, A, B, C
KINGBIRD	2x4S, A, 2xB, 2xC

- * S - CONSTRUCTION STAYS SLACK OFF AFTER INSTALLATION.
- * WHERE 2S ARE REQUIRED USE TOP AND BOTTOM PHASE.
- * WHERE S IS REQUIRED USE MIDDLE PHASE.
- * WHERE 3S IS REQUIRED USE TOP, MIDDLE AND BOTTOM PHASE.
- * WHERE 4S IS REQUIRED USE TOP, BOTTOM AND 2 x MIDDLE PHASE.

VERTICAL STRAIN STRUCTURES

10	STAY REQUIREMENTS CHANGED AND NOTES CHANGED ON SHEET 1	P.A.T.	B. HILL	B. HILL	25.03.13	
9	3 TEMPORY STAYS CHANGED OR SHOWN AND 3 PHASE CHICADEE STAY LAYOUTS ADDED	P.A.T.	B. HILL	B. HILL	14.01.13	
8	0 DEG. TABLE REPOSITIONED ON SH. 5 0 DEG. IN-LINE STRAIN	P.A.T.	S.MASHABA	B. HILL	08.08.11	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: P. CROWDY

DATE: MAY 1996

CHKD: J. SWAN

DATE: MAY 1996

DRAWN: P.A. VERMAAK

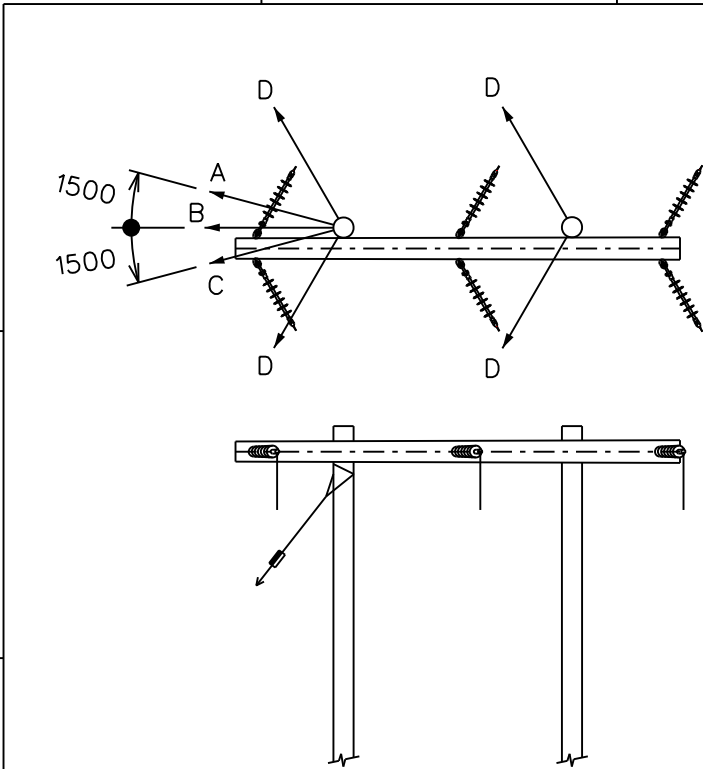
DATE: 31.10.1995

MV RETICULATION
STAY ATTACHMENT
ANGLE STRUCTURES

D-DT-0312

SET SHEET REVISION

6 1 10



0° STAYS
 SQUIRREL 2x2D (INLINE)
 FOX 2x2D (INLINE)
 MINK 2x2D (INLINE)
 HARE 2x2D (INLINE)
 CHICADEE 2x2D (INLINE)

1-30° STAYS
 SQUIRREL 2x2D, B
 FOX 2x2D, B
 MINK 2x2D, B
 HARE 2x2D, B
 CHICADEE 2x2D, B

30-60° STAYS
 SQUIRREL 2x2D, B
 FOX 2x2D, B
 MINK 2x2D, B
 HARE 2x2D, A, C
 CHICADEE 2x2D, A, C

60-90° STAYS
 SQUIRREL 2x2D, B
 FOX 2x2D, B
 MINK 2x2D, A, B,
 HARE 2x2D, A, B, C
 CHICADEE 2x2D, A, B, C

NOTES: (SEE SHEET 1)

STRAIN H-POLE STRUCTURES

10	STAY REQUIREMENTS CHANGED AND NOTES CHANGED ON SHEET 1	P.A.T.	B. HILL	B. HILL	25.03.13	
9	5 TEMPORARY STAYS CHANGED OR SHOWN AND 3 PHASE CHICADEE STAY LAYOUTS ADDED	P.A.T.	B. HILL	B. HILL	14.01.13	
8	0 DEG. TABLE REPOSITIONED ON SH. 5 0 DEG. IN-LINE STRAIN	P.A.T.	S.MASHABA	B. HILL	08.08.11	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: P. CROWDY

DATE: MAY 1996

CHKD: J. SWAN

DATE: MAY 1996

DRAWN: P.A.VERMAAK

DATE: 31.10.1995

MV RETICULATION
 STAY ATTACHMENT
 ANGLE STRUCTURES

D-DT-0312

SET SHEET REVISION

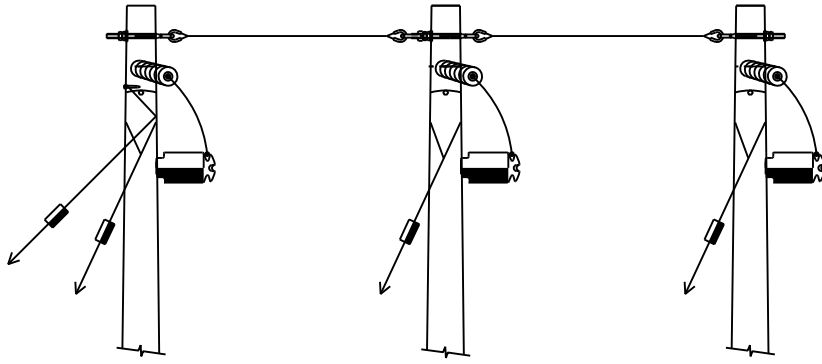
6 2 10

1

2

3

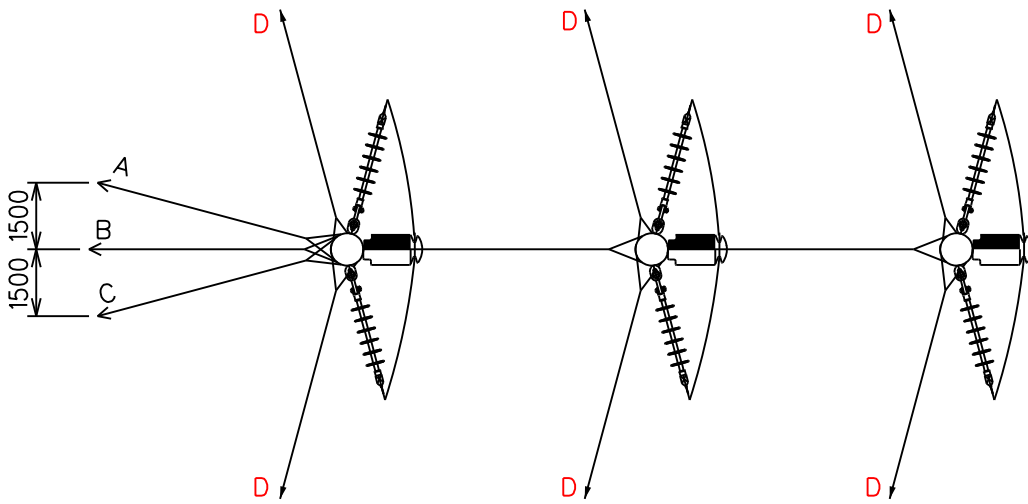
A



B

NOTE :
 IF SPANS ON EITHER SIDE OF TRIPS ARE UNEQUAL BY
 A FACTOR OF 0.75 OR GREATER, THE IN-LINE STAYS
 OPPOSITE THE SHORTER SPAN MAY BE OMITTED.

C



D

NOTES: (SEE SHEET 1)

30-60°	STAYS	60-90°	STAYS
SQUIRREL	B, 2x3D	SQUIRREL	B, 2x3D
FOX	B, 2x3D	FOX	B, 2x3D
MINK	B, 2x3D	MINK	B, 2x3D
HARE	B, 2x3D	HARE	A, C, 2x3D

E

10	STAY REQUIREMENTS CHANGED AND NOTES CHANGED ON SHEET 1	P.A.T.	B. HILL	B. HILL	25.03.13	
9	5 TEMPORARY STAYS CHANGED OR SHOWN AND 3 PHASE CHICKADEE STAY LAYOUTS ADDED	P.A.T.	B. HILL	B. HILL	14.01.13	
8	0 DEG. TABLE REPOSITIONED ON SH. 5 0 DEG. IN-LINE STRAIN	P.A.T.	S.MASHABA	B. HILL	08.08.11	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

F



AUTH: P. CROWDY

DATE: MAY 1996

CHKD: J. SWAN

DATE: MAY 1996

DRAWN: P.A.VERMAAK

DATE: 31.10.1995

MV STAY ATTACHMENT TRIPS STRAIN STRUCTURES

D-DT-0312

SET	SHEET	REVISION
-----	-------	----------

6	5	10
---	---	----

1

2

3

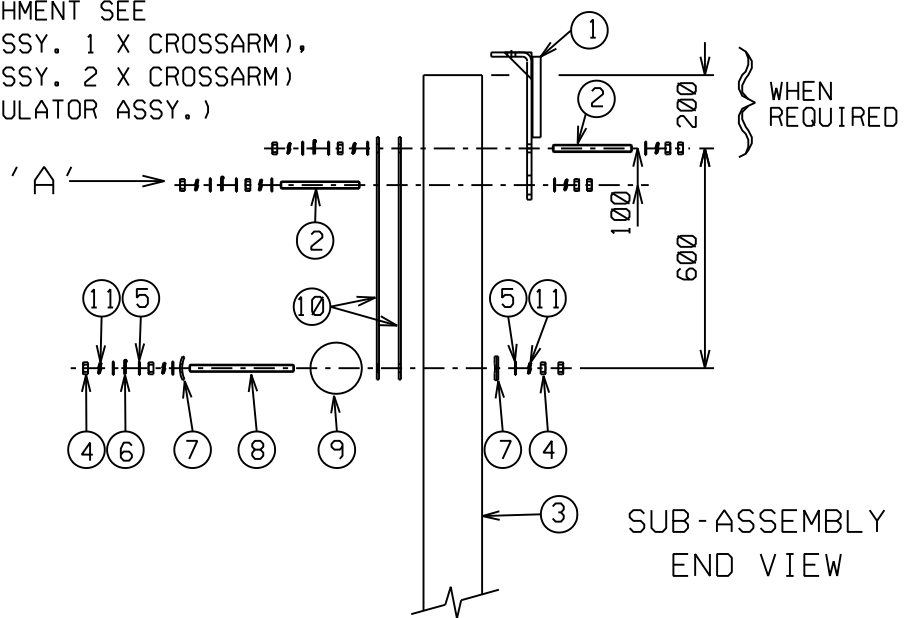
4 A4L

NOTE :

FOR INSULATOR ATTACHMENT SEE
 D-DT-0373 (STRAIN ASSY. 1 X CROSSARM),
 D-DT-0374 (STRAIN ASSY. 2 X CROSSARM)
 D-DT-0390 (POST INSULATOR ASSY.)

A

A



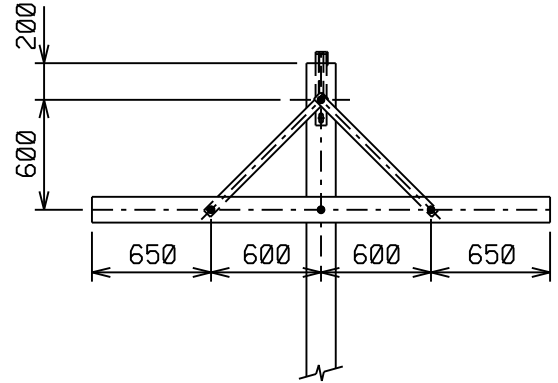
B

B

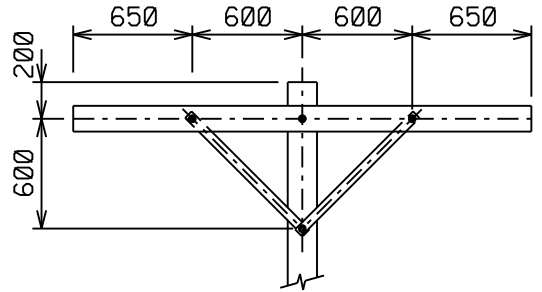
SUB-ASSEMBLY
END VIEW

C

C



ASSEMBLY (OPTION A)
VIEW ON "A"



ASSEMBLY (OPTION B)
VIEW ON "A"

D

D

REF	DESCRIPTION	DRAWING NO.	REF	DESCRIPTION	DRAWING NO.
1	BRACKET POLE TOP	(D-DT-3046)	6	BONDING CLIP	(D-DT-3033)
2	THREADED ROD M20X350	(D-DT-3015)	7	WASHER CURVED M20X65	(D-DT-3014)
3	WOODEN POLE		8	THREADED ROD M20X450	(D-DT-3015)
4	NUT HEX. M20	(D-DT-3173)	9	WOODEN X-ARM 2.5M	(D-DT-0061)
5	WASHER FLAT ROUND M20	(D-DT-3014)	10	TIE STRAP 910MM	(D-DT-3031)
6	TITLE BLOCK FOR 800 PHASE SPACING CORRECTED SH. 2		11	WASHER SPRING M20	(D-DT-3014)

E

E

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
5	SPRING WASHERS ADDED AND POSITION OF NUTS AND BOLTS CHANGED	P.A.T.	D.RAMJASS	B. HILL	28.06.2009	
4	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	28.06.2009	

F

F

	MV STRAIN ASSEMBLY (600mm PHASE SPACING) 2500 WOOD CROSSARM / POLE				
	AUTH: B.BRANFIELD				
	DATE: 11.01.1999				
	CHKD: B.BRANFIELD				
DATE: 11.01.1999	D-DT-0316		SET	SHEET	REVISION
DRAWN: M. SMALL P.A.VERMAAK			2	1	6
DATE: 03.08.1998					

NOTE :

FOR INSULATOR ATTACHMENT SEE
 D-DT-0373 (STRAIN ASSY. 1 X CROSSARM),
 D-DT-0374 (STRAIN ASSY. 2 X CROSSARM)
 D-DT-0390 (POST INSULATOR ASSY.)

A

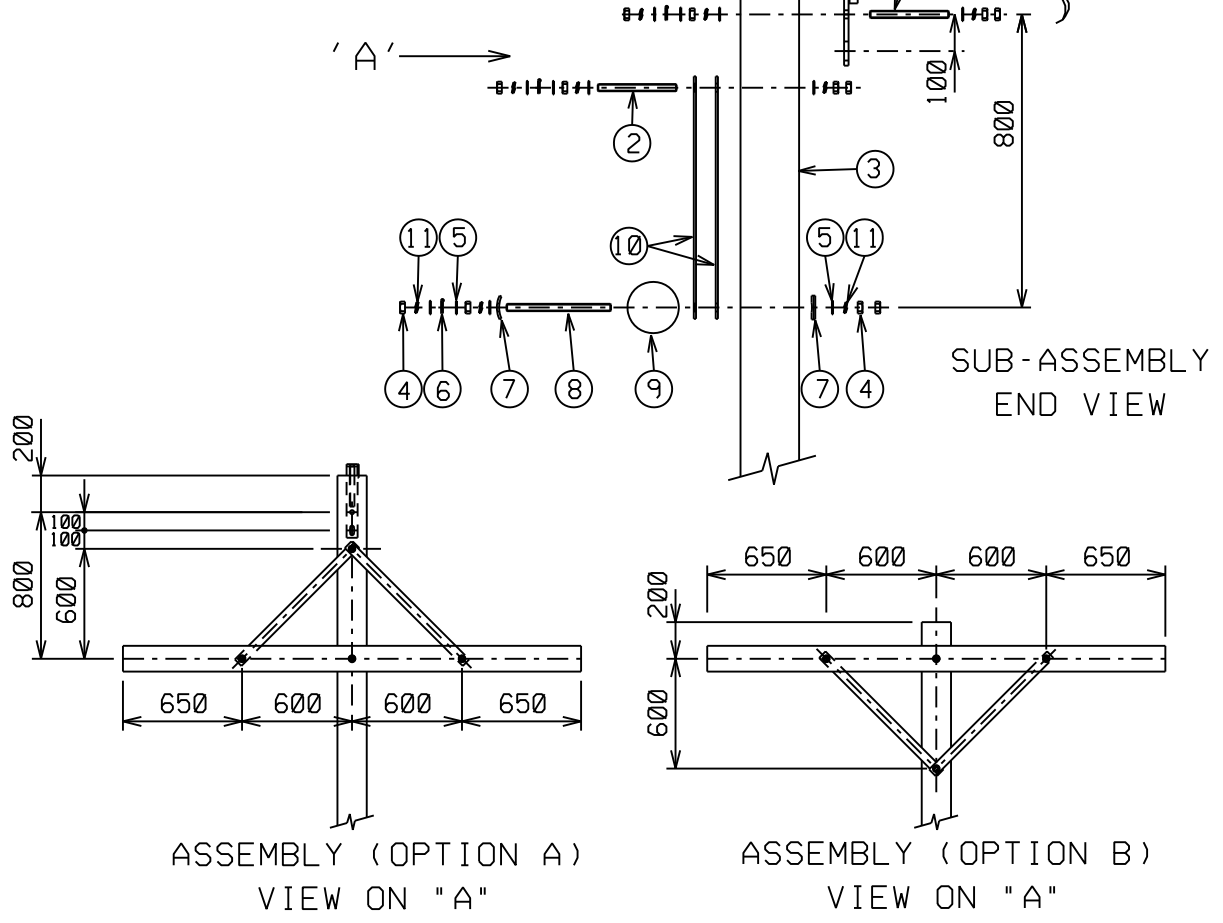
A

B

B

C

C



ASSEMBLY (OPTION A)
VIEW ON "A"

ASSEMBLY (OPTION B)
VIEW ON "A"

D

D

REF	DESCRIPTION	DRAWING NO.	REF	DESCRIPTION	DRAWING NO.
1	BRACKET POLE TOP	(D-DT-3046)	6	BONDING CLIP	(D-DT-3033)
2	THREADED ROD M20X350	(D-DT-3015)	7	WASHER CURVED M20X65	(D-DT-3014)
3	WOODEN POLE		8	THREADED ROD M20X450	(D-DT-3015)
4	NUT M20	(D-DT-3173)	9	WOODEN X-ARM 2.5M	(D-DT-0061)
5	WASHER FLAT ROUND M20	(D-DT-3014)	10	TIE STRAP 910MM	(D-DT-3031)
11	WASHER SPRING M20	(D-DT-3014)	11	WASHER SPRING M20	(D-DT-3014)

E

E

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
6	TITLE BLOCK FOR 800 PHASE SPACING CORRECTED SH. 2			P.A.T.		
5	SPRING WASHERS ADDED AND POSITION OF NUTS AND BOLTS CHANGED			P.A.T.	D.RAMJASS B. HILL	28.06.2009
4	RETICULATION REMOVED FROM TITLE BLOCK			N.M.	P.A.T. P.A.T.	28.06.2009

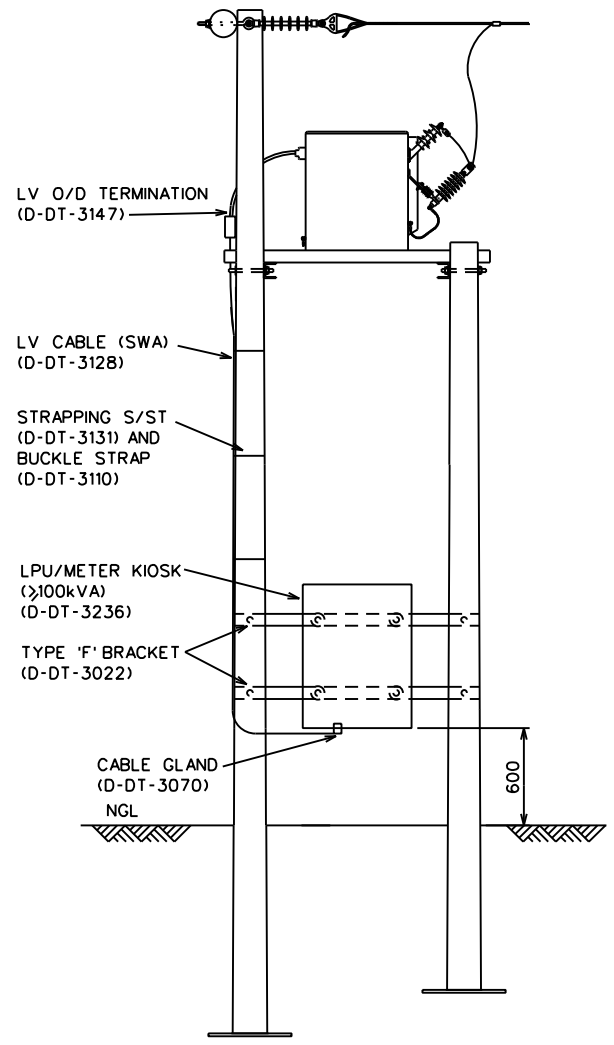
F

F

	MV STRAIN ASSEMBLY (800mm PHASE SPACING) 2500 WOOD CROSSARM / POLE					
	AUTH: B.BRANFIELD					
	DATE: 11.01.1999					
	CHKD: B.BRANFIELD					
	DATE: 11.01.1999					
DRAWN: M. SMALL P.A.VERMAAK		D-DT-0316		SET	SHEET	REVISION
DATE: 03.08.1998				2	2	6

1 2 3 4 5 6 7 8

A
B
C
D
E
F



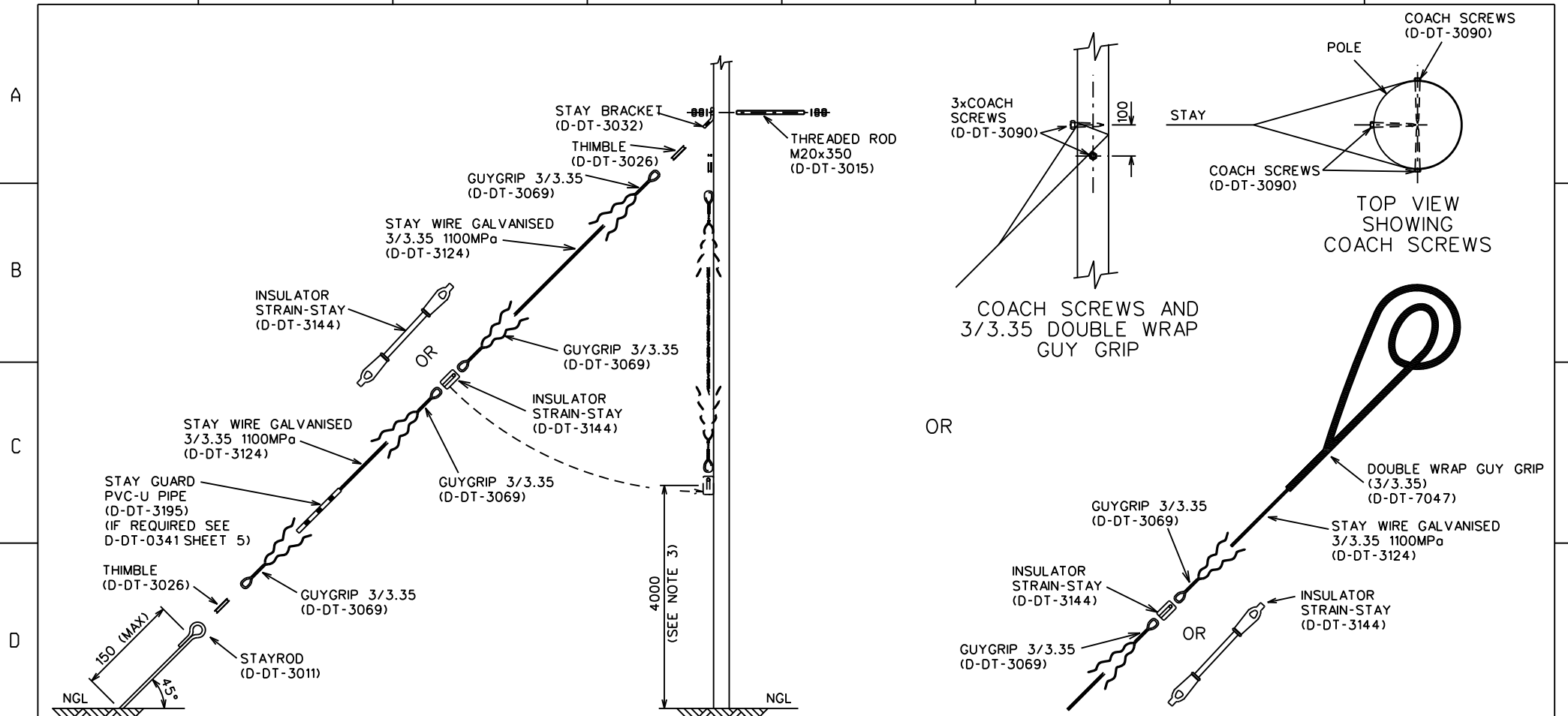
NOTES :

1. THE LARGE POWER USER (LPU) METER KIOSK FOR 100-500kVA SUPPLIES ARE MOUNTED ON THE POLE WITH TWO TYPE 'F' BRACKETS (D-DT-3022).
2. LV TERMINATIONS (D-DT-3147) SHALL BE USED ON CABLES GREATER THAN OR EQUAL TO 70mm SQ. EXCEPT FOR 70mm SQ. 4 CORE.
3. THE LV CABLE (SWA) SHALL BE POSITIONED DOWN THE POLE TO MINIMISE EXPOSURE TO SUN (ie. SOUTH SIDE OF POLE).
4. THE LV CABLE ARMOURING SHALL BE BONDED TO THE KIOSK WITH A GLAND AND SHALL BE INSULATED FROM THE TRFR. TANK.

3	LINE DIAG'S CHANGED ON SH. 1 - 3 AND VARIOUS OTHER CHANGES MADE	P.A.V.	J.MAUDU	J.MAUDU	10.04.06	
2	WOODEN CROSSARMS TO BE USED TO MOUNT SPU LOGO CHANGED AS PER NEW CORPORATE ID	P.A.V./PBM	P.A.V.	P.A.V.	26/10/04	
1	PIN CONNECTOR ADDED TO SHEET 5	P.A.V.	A.ABROSIE	P.CROWDY	26.10.99	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO

	LV SERVICES POLE (H-POLE F-BRACKET) MOUNTED LARGE POWER USER OUTDOOR SUPPLY					
	AUTH: A. ABROSIE					
	DATE: 21.08.1998					
	CHKD: A. ABROSIE					
	DATE: 21.08.1998					
DRAWN: P.A.V. DATE: 11-02-1998	D-DT-0338			SET 6	SHEET 2	REVISION 3

1 2 3 4 5 6 7 8 A3L



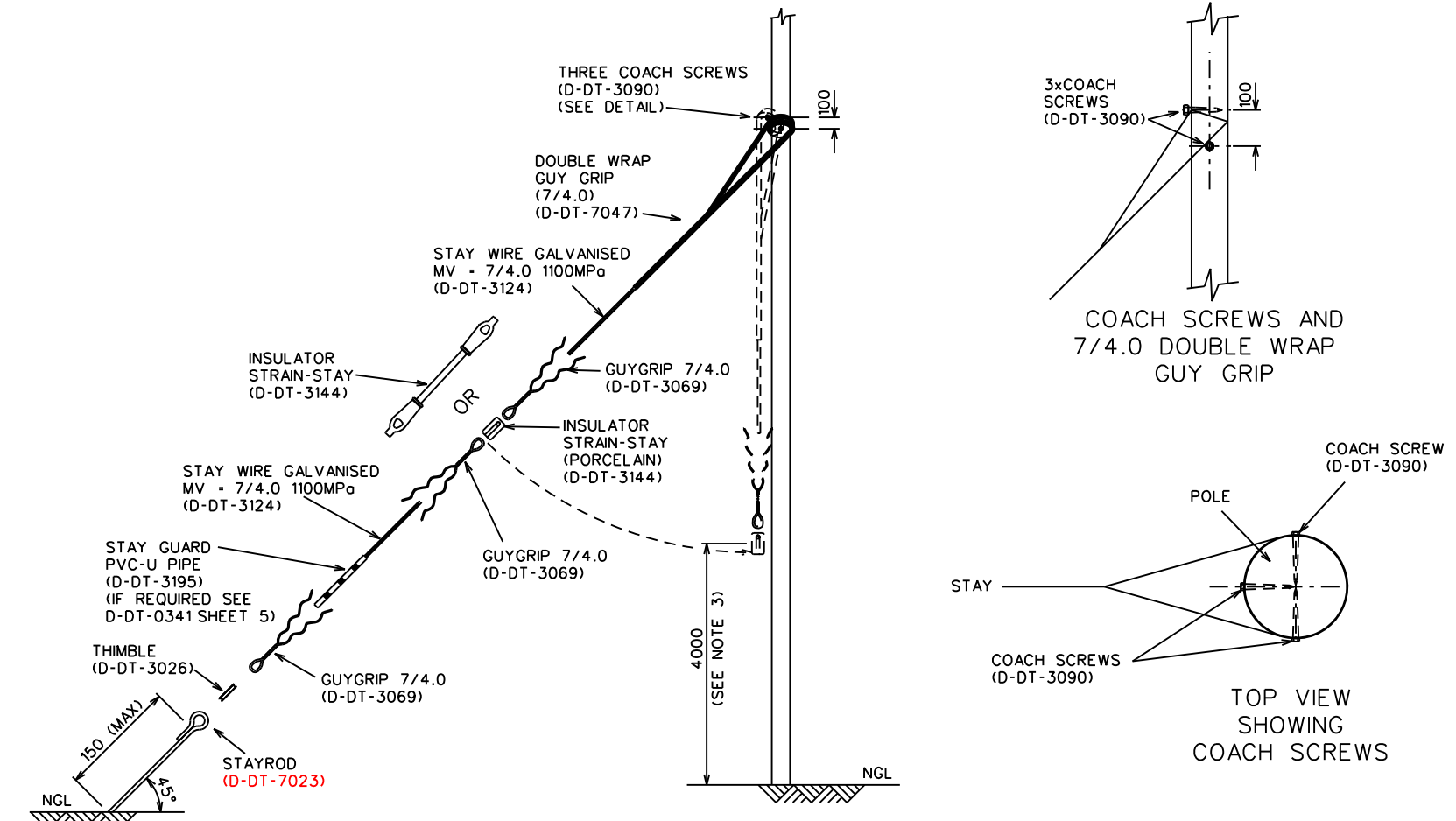
STAY ROD ASSEMBLY (D-DT-0350) OR ROCK ANCHOR INSTALLATION (D-DT-0357) STAYING ATTACHMENT (D-DT-0312)

- NOTE:-
1. READ IN CONJUNCTION WITH STAY ATTACHING METHOD DRG. NO. (D-DT-0166) FOR CONCRETE POLES.
 2. STAY TO BE POSITIONED AS CLOSE TO CROSSARM OR EQUIPMENT AS POSSIBLE.
 3. MINIMUM DIMENSION FROM BOTTOM OF THE INSULATOR TO GROUND TO BE 4000MM WHERE THERE IS NO EQUIPMENT ON THE POLE. IF THERE IS EQUIPMENT ON THE POLE THE INSULATOR IS TO HANG BELOW THE EQUIPMENT WITH A MINIMUM DISTANCE OF 3000MM FROM THE BOTTOM OF THE INSULATOR TO THE GROUND.
 4. FOR ANTI-CLIMBING DEVICE SEE D-DT-0399.
 5. STAY GRIP (D-DT-3195) TO BE POSITIONED ABOVE GUYGRIP, FOR APPLICATION SEE D-DT-0341 SH. 5 (IF REQUIRED).

(INFORMATION TAKEN FROM D-DT-0165 AND D-DT-1165)

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
17	REFERENCE TO MV/HV STAYROD DRAWING NO. CORRECTED	P.A.T.	B.HILL	B.HILL	05.08.2013	
16	PVC-U STAY GUARD PIPE RUBBER FERRULES REMOVED AND REPLACED WITH UV RESISTANT RUBBER END CAPS	P.A.T.	B.HILL	V.SINGH	03.03.2011	
15	STAY BRKT. REPLACED WITH DBL. WRAP GUY GRIP SH.4 AND STAY GUARD HDPE PIPE CHANGED TO PVC-U PIPE	P.A.T.	C.VD MERWE	B.HILL	06/10/2010	

		STAY ASSEMBLY (LV - 35kN) WOOD/CONCRETE POLES			



STAY ROD ASSEMBLY
(D-DT-0350) OR
ROCK ANCHOR
(D-DT-0357)
STAYING ATTACHMENT
(D-DT-0312)

- NOTE:-
1. SINGLE WRAP GUY GRIP NOT ACCEPTABLE..
 2. STAY TO BE POSITIONED AS CLOSE TO CROSSARM OR EQUIPMENT AS POSSIBLE.
 3. MINIMUM DIMENSION FROM BOTTOM OF THE INSULATOR TO GROUND TO BE 4000MM WHERE THERE IS NO EQUIPMENT ON THE POLE. IF THERE IS EQUIPMENT ON THE POLE THE INSULATOR IS TO HANG BELOW THE EQUIPMENT WITH A MINIMUM DISTANCE OF 3000MM FROM THE BOTTOM OF THE INSULATOR TO THE GROUND.
 4. FOR ANTI-CLIMBING DEVICE SEE D-DT-0399.
 5. STAY GRIP (D-DT-3195) TO BE POSITIONED ABOVE GUYGRIP, FOR APPLICATION SEE D-DT-0341 SH. 5 (IF REQUIRED).

(INFORMATION TAKEN FROM D-DT-1265)

17	REFERENCE TO MV/HV STAYROD DRAWING NO. CORRECTED	P.A.T.	B.HILL	B.HILL	05.08.2013	
16	PVC-U STAY GUARD PIPE RUBBER FERRULES REMOVED AND REPLACED WITH UV RESISTANT RUBBER END CAPS	P.A.T.	B.HILL	V.SINGH	03.03.2011	
15	STAY BRKT. REPLACED WITH DBL. WRAP GUY GRIP SH.4 AND STAY GUARD HDPE PIPE CHANGED TO PVC-U PIPE	P.A.T.	C.VD MERWE	B.HILL	06/10/2010	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

	STAY ASSEMBLY (MV - 97kN) WOOD POLES			
	AUTH: B.BRANFIELD			
	DATE: 11/01/1999			
	CHKD: B.BRANFIELD			
DATE: 11/01/1999		SET	SHEET	REVISION
DRAWN: P.VERMAAK		D-DT-0341	5	2
DATE: 15/10/1998				17

A

B

C

D

E

F

A

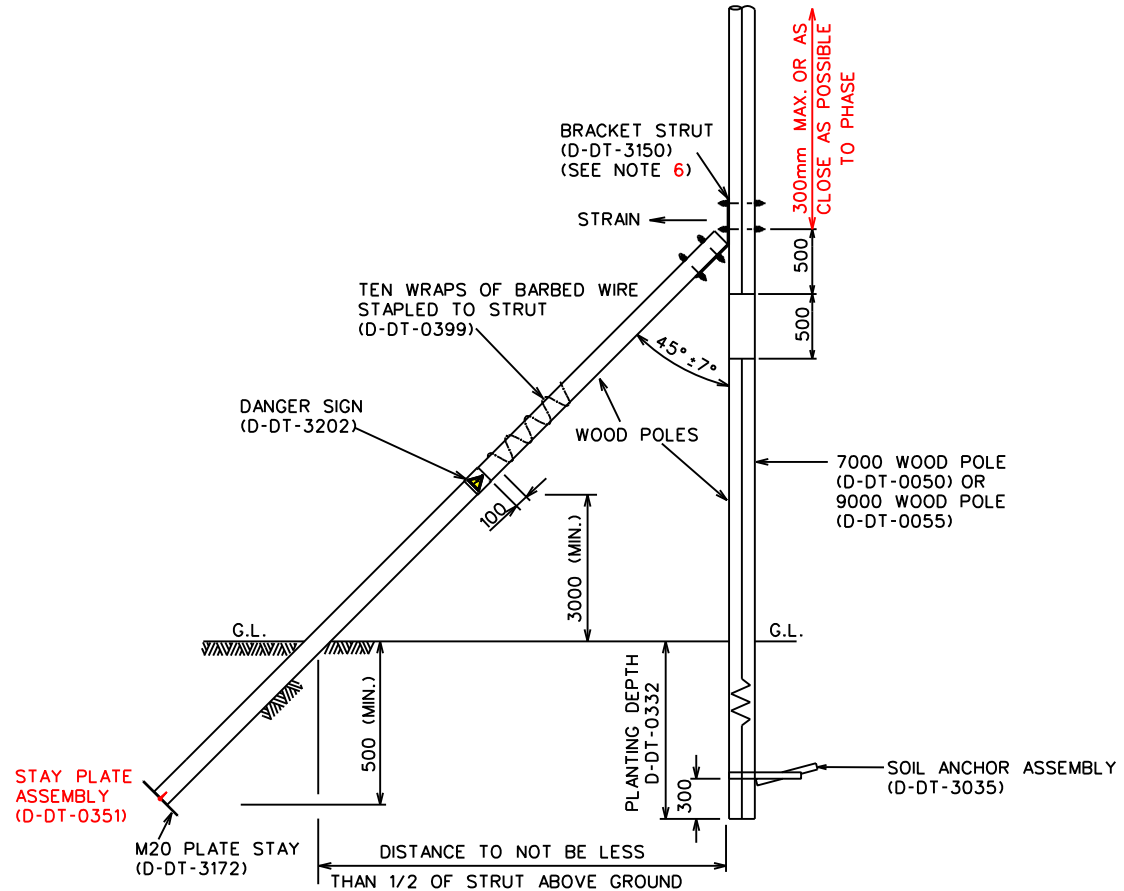
B

C

D

E

F



WOOD POLE LENGTH	STRUT LENGTH & POLE TOP DIA.	WOOD POLE DRAWING NO.
7m	9m 140mm	D-DT-0055
9m	11m 160mm	D-DT-0051

NOTES:

- ALL WOOD DRILLED ON SITE TO BE TREATED WITH CREOSOTE.
- STRUTS ARE NOT A RECOMMENDED SOLUTION AND SHOULD BE INSTALLED ONLY AS LAST RESORT.
- COMPACTION OF POLE SEE SPEC. DTC 0106
- FOR INSULATION COORDINATION SEE D-DT-0310.
- STRUT ASSEMBLY TO HAVE A SOIL ANCHOR ATTACHED SEE (D-DT-3035).
- ATTACHMENT TO BE AS CLOSE TO CROSSARM OR PHASE INSULATION AS POSSIBLE. MAXIMUM DISTANCE IS 300mm.

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
4	TABLES AND NOTES CHANGED & MV STRUT ASSEMBLY SWIVEL BRACKETS REPOSITIONED FROM D-DT-0351	P.A.T.	B.HILL	B.HILL	08.08.2012	
3	SWIVEL STRUT BRACKET REMOVED AND REFERENCE TO LV ADDED TO TITLE BLOCK	P.A.V.	B.HILL	B.HILL	17.08.2004	
2	STRUT BRACKET CHANGED TO SWIVEL STRUT BRACKET D-DT-3150	P.A.V.	B.HILL	B.HILL	27.01.2004	

	STRUT ASSEMBLY FLAT 45 DEG. BRACKET 7m AND 9m WOOD POLES				
	AUTH: B. BRANFIELD		SET	SHEET	REVISION
	DATE: 11/01/1999		3	1	4
	CHKD: B. BRANFIELD				
DATE: 11/01/1999		D-DT-0342			
DRAWN: P. A. VERMAAK					
DATE: 14/19/1998					

1

2

3

4

5

6

7

8

A

B

C

D

E

F

A

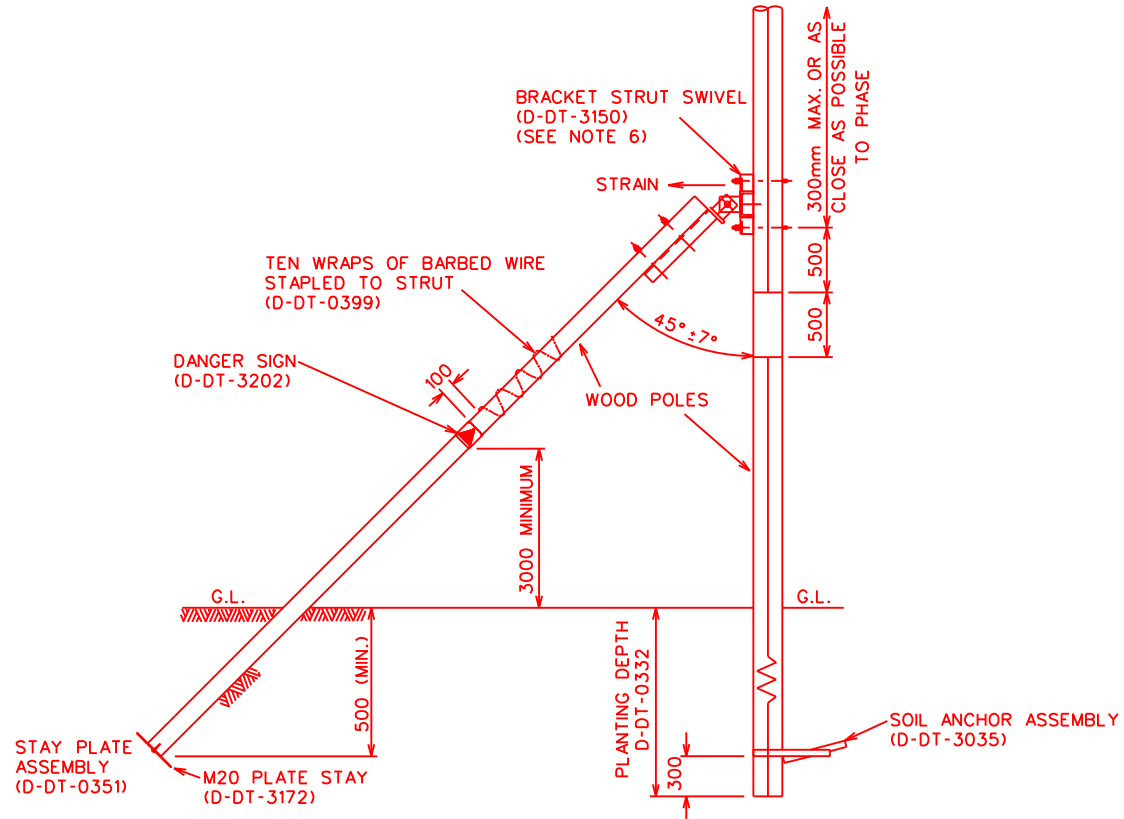
B

C

D

E

F



WOOD POLE LENGTH	STRUT LENGTH & POLE TOP DIA.	WOOD POLE DRAWING NO.
7m	9m 140mm	D-DT-0055
9m	11m 160mm	D-DT-0051
11m	12m 180mm	D-DT-0053
12m	14m 180mm	D-DT-0054
13m	15m 200mm	D-DT-0057

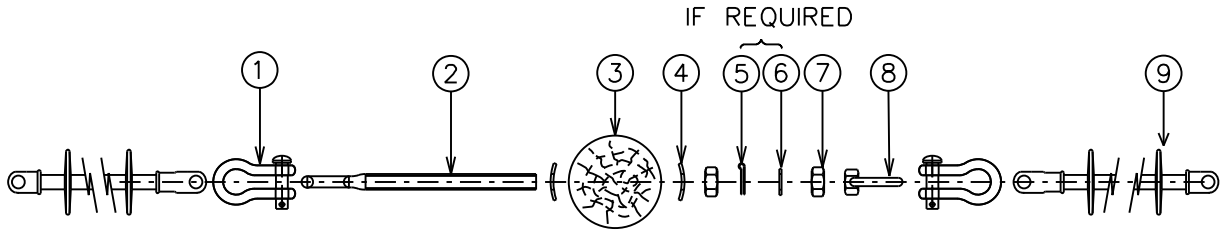
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
4	TABLES AND NOTES CHANGED & MV STRUT ASSEMBLY SWIVEL BRACKETS REPOSITIONED FROM D-DT-0351	P.A.T.	B.HILL	B.HILL	08.08.2012	
3	SWIVEL STRUT BRACKET REMOVED AND REFERENCE TO LV ADDED TO TITLE BLOCK	P.A.V.	B.HILL	B.HILL	17.08.2004	
2	STRUT BRACKET CHANGED TO SWIVEL STRUT BRACKET D-DT-3150	P.A.V.	B.HILL	B.HILL	27.01.2004	

- NOTES:
1. ALL WOOD DRILLED ON SITE TO BE TREATED WITH CREOSOTE.
 2. STRUTS ARE NOT A RECOMMENDED SOLUTION AND SHOULD BE INSTALLED ONLY AS LAST RESORT.
 3. COMPACTION OF POLE SEE SPEC. DTC 0106
 4. FOR INSULATION COORDINATION SEE D-DT-0310.
 5. STRUT ASSEMBLY TO HAVE A SOIL ANCHOR ATTACHED SEE (D-DT-3035).
 6. ATTACHMENT TO BE AS CLOSE TO CROSSARM OR PHASE INSULATION AS POSSIBLE. MAXIMUM DISTANCE IS 300mm.

	STRUT ASSEMBLY SWIVEL BRACKET		
	7m, 9m, 11m, 12m & 13m WOOD POLES		
	DATE: 11/01/1999		
	CHKD: B. BRANFIELD		
DATE: 11/01/1999			
DATE: 14/19/1998			
DRAWN: P. A. VERMAAK	D-DT-0342	3	2
		4	4

A

A



SUB-ASSEMBLY

B

B



ASSEMBLY

C

C

REF	DESCRIPTION	DRAWING NO.
1	D SHACKLE	(D-DT-3010)
2	EYE BOLT M20	(D-DT-3005)
3	WOOD CROSSARM	
4	CURVED WASHER M20x65	(D-DT-3014)
5	BONDING CLIP M20	(D-DT-3033)
6	FLAT ROUND WASHER M20	(D-DT-3014)
7	NUT M20	(D-DT-3173)
8	EYE NUT M20	(D-DT-3004)
9	22kV LONG ROD INSULATOR 33kV LONG ROD INSULATOR	(D-DT-3042) (D-DT-3190)

D

D

4	REVERTED BACK TO REV. 2	P.A.T.	B. HILL	B. HILL	20/04/17	
3	NUTS, BOLTS AND WASHERS SHOWN FOR EYE BOLT	P.A.T.	B. HILL	B. HILL	25/03/13	
2	LOGO CHANGED AS PER NEW CORPORATE ID	AKM	P.A.V.	P.A.V.	26/10/04	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

E

E



MV STRAIN ASSEMBLY
WOOD CROSSARM
EYEBOLT

AUTH: B.BRANFIELD

DATE: 11/01/1999

CHKD: B.BRANFIELD

DATE: 11/01/1999

DRAWN: M. SMALL
P.A.V.

DATE: 05/08/1998

D-DT-0373

SET	SHEET	REVISION
1	1	4

F

F

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

B

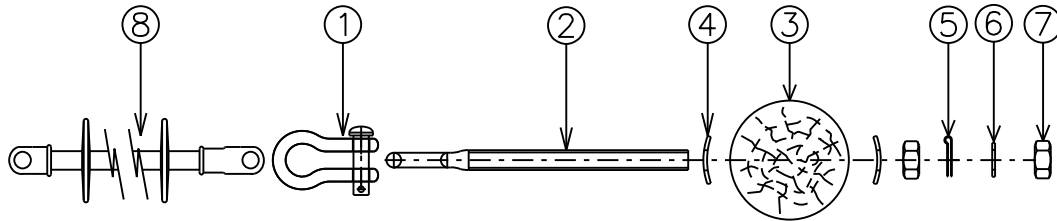
C

D

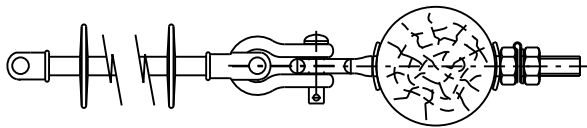
E

F

IF REQUIRED



SUB-ASSEMBLY



ASSEMBLY

REF	DESCRIPTION	DRAWING NO.
1	D SHACKLE	(D-DT-3010)
2	EYE BOLT M20	(D-DT-3005)
3	WOOD CROSSARM	
4	CURVED WASHER M20x65	(D-DT-3014)
5	BONDING CLIP M20	(D-DT-3033)
6	FLAT ROUND WASHER M20	(D-DT-3014)
7	NUT M20	(D-DT-3173)
8	22kV LONG ROD INSULATOR 33kV LONG ROD INSULATOR	(D-DT-3042) (D-DT-3190)

2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	11/07/09	
1	LOGO CHANGED AS PER NEW CORPORATE ID	PBM	P.A.V.	P.A.V.	26/10/04	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
		<p>MV TERMINAL ASSEMBLY WOOD CROSSARM EYEBOLT</p>				
AUTH:	B.BRANFIELD					
DATE:	11.01.1999					
CHKD:	B.BRANFIELD					
DATE:	05.08.1998					
DRAWN:	M. SMALL P.A.V.	D-DT-0375		SET	SHEET	REVISION
DATE:	11.01.1999			1	1	2

1 2 3 4 5 6 7 8 A3L

A

A

B

B

C

C

D

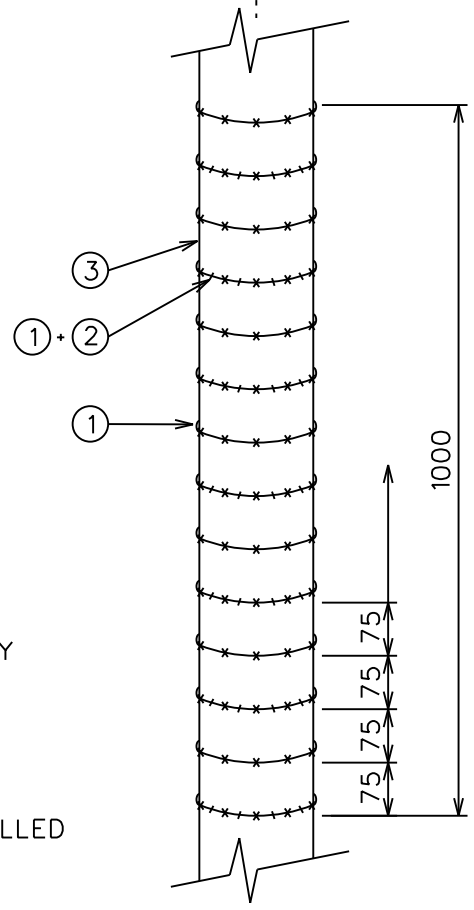
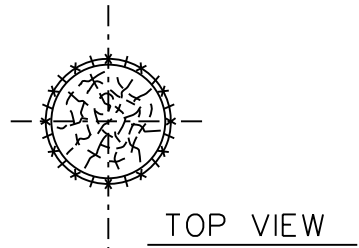
D

E

E

F

F



NOTE :

- 1. GALVANISED STAPLES INSTALLED AT EVERY SECOND TURN.
- 2. THE BOTTOM END OF THE BARBED WIRE APPLICATION WILL NOT BE LOWER THAN 3m ABOVE GROUND LEVEL.
- 4. STAY ANTI-CLIMBLING DEVICE TO BE INSTALLED AS PER TECHNICAL BULLETEN 03TB08.

REF	DESCRIPTION	DRAWING NO.
1	BARBED WIRE	(D-DT-3170)
2	GALVANISED STAPLES	(D-DT-3129)
3	WOOD POLE	

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
7	ANTI-CLIMBLING DEVICE FOR PARALLEL STAY ASSEMBLY SH.3 ADDED	P.A.T.		B. HILL	20.04.2017	
6	NOTE 3 CHANGED ON SHEET 2	P.A.T.		B. HILL	21.05.2010	
5	RETICULATION REMOVED FROM TITLE BLOCK	N.M.		P.A.T.	12.07.2009	

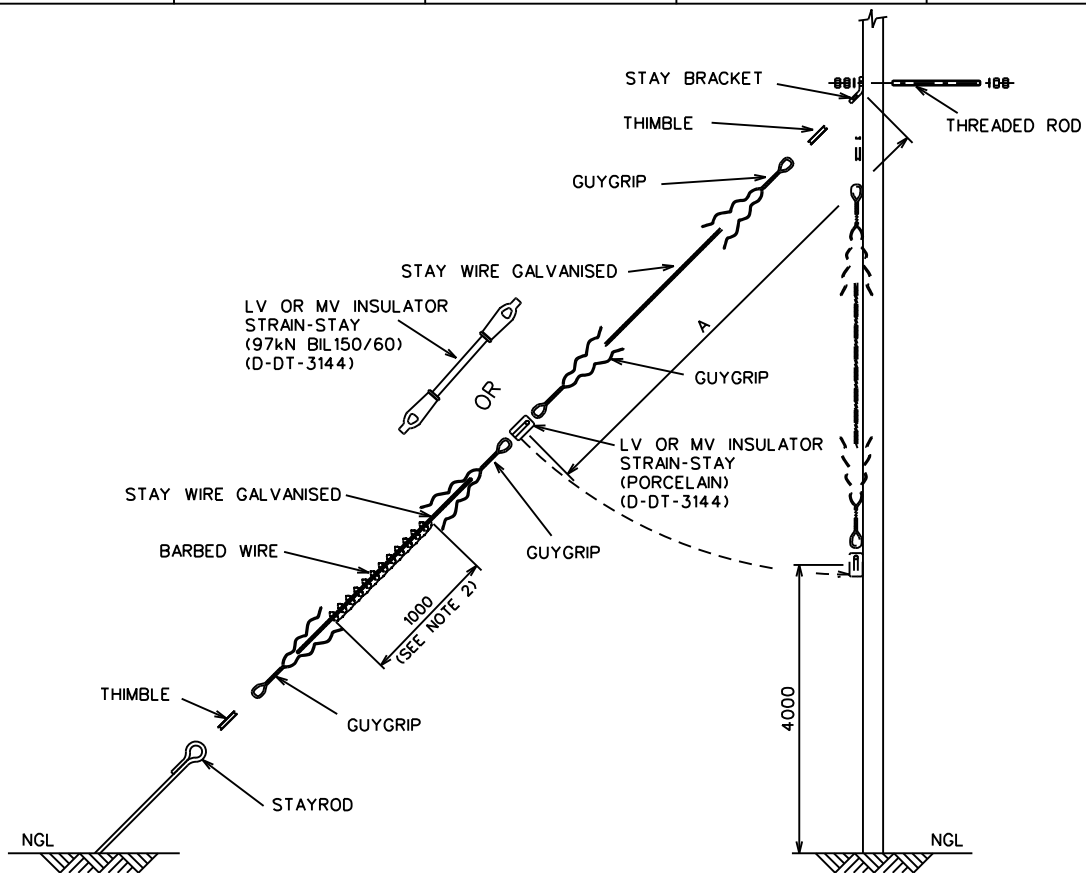


MV EQUIPMENT MOUNTING ASSEMBLY
ANTI-CLIMBLING DEVICE -
BARBED WIRE

AUTH:	R.THERON
DATE:	06/06/2003
CHKD:	R.THERON
DATE:	06/06/2003
DRAWN:	P.VERMAAK
DATE:	09/03/2003

D-DT-0399

SET	SHEET	REVISION
3	1	7

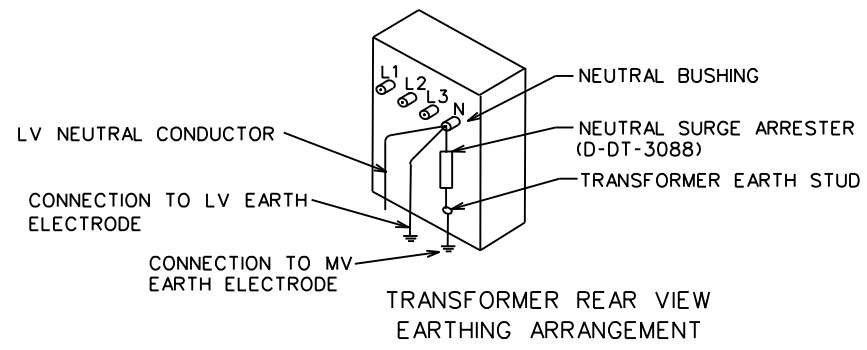
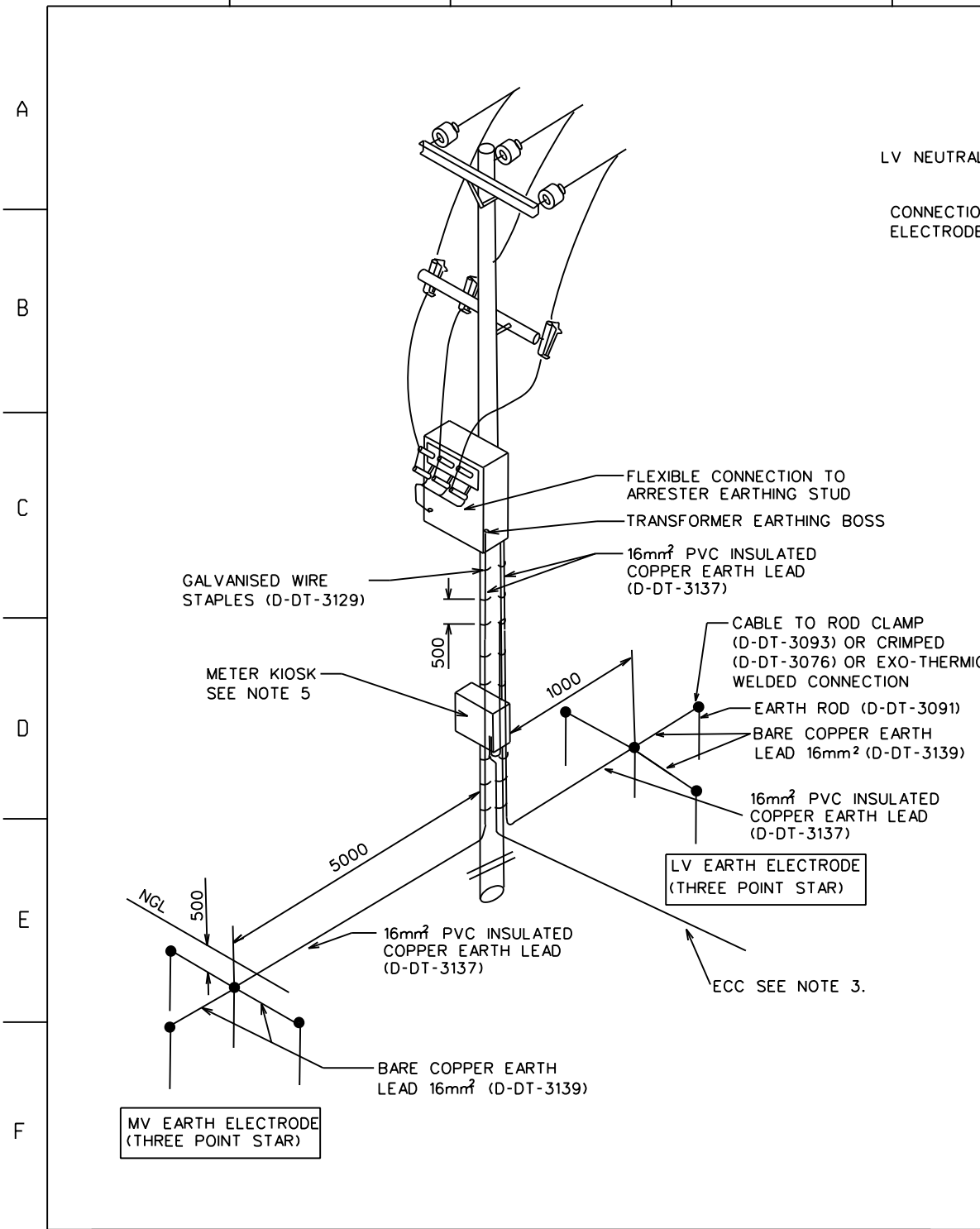


- NOTE:-
1. READ IN CONJUNCTION WITH STAY ASSEMBLY DRG. NO. (D-DT-0341).
 2. BARBED WIRE TO BE BOUND TOP AND BOTTOM SECURELY WITH LINE TAP, CROSBY CLAMP OR A 4 POINT INDENT 'C' CRIMP.
 3. BARBED WIRE TO BE WRAPPED SNUGLY AROUND THE STAY WIRE STARTING AT THE END OF GUY GRIP FOR A DISTANCE OF 1m AND THEN WOUND BACK TOWARDS THE STARTING POINT.
THE BOTTOM END OF THE BARBED WIRE APPLICATION WILL NOT BE LOWER THAN 3m PERPENDICULARLY ABOVE GROUND LEVEL.
 4. STAY ANTI-CLIMBING DEVICE TO BE INSTALLED AS PER TECHNICAL BULLETEN 03TB08.

(INFORMATION TAKEN FROM D-DT-0265)

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
7	ANTI-CLIMBLING DEVICE FOR PARALLEL STAY ASSEMBLY SH.3 ADDED	P.A.T	B. HILL		20.04.2017	
6	NOTE 3 CHANGED ON SHEET 2	P.A.T	B. HILL		21.05.2010	
5	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.		12.07.2009	

	MV EQUIPMENT MOUNTING ASSEMBLY ANTI-CLIMBLING DEVICE - BARBED WIRE FOR STAY ASSEMBLYS						
	AUTH: R.THERON						
	DATE: 06/06/2003						
	CHKD: R.THERON						
	DATE: 06/06/2003						
DRAWN: P.VERMAAK							
DATE: 09/03/2003							
D-DT-0399					SET	SHEET	REVISION
					3	2	7

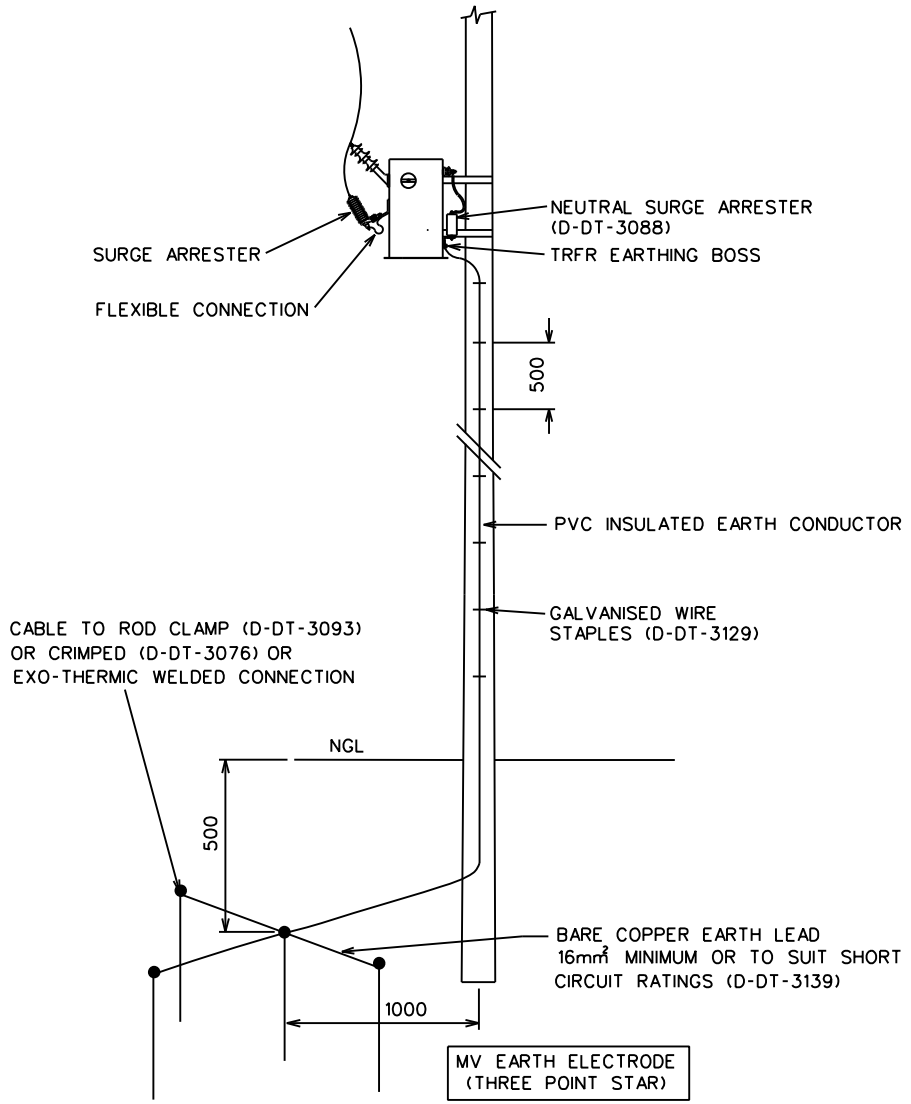


NOTES:-

1. THE STEELWORK, TRANSFORMER TANK AND MV SA'S ARE TO BE BONDED AND CONNECTED TO THE MV EARTH ELECTRODE.
2. THE TRANSFORMER NEUTRAL SA IS TO BE CONNECTED BETWEEN THE LV NEUTRAL BUSHING AND THE TRANSFORMER EARTHING BOSS.
3. THE CUSTOMERS EARTHING CONTINUITY CONDUCTOR (ECC) SHOULD NOT BE SMALLER THAN HALF THE CROSS SECTIONAL AREA OF THE LARGEST CURRENT CARRYING CONDUCTOR OF THE SUPPLY CABLE.
4. A MINIMUM SEPARATION DISTANCE OF 5000mm IS TO BE MAINTAINED BETWEEN THE MV & LV EARTH ELECTRODES & BETWEEN THE UNINSULATED PART OF THE MV EARTH ELECTRODE & THE CUSTOMER'S ECC.
5. REFER TO SERVICES STANDARD PART 8 SECTION 3 FOR DETAILED DRAWINGS OF METER KIOSK BONDING REQUIREMENTS.
6. REFER TO D-DT-0642 FOR DETAIL OF CONNECTIONS WITHIN EARTH ELECTRODES.
7. REFER TO D-DT-0630 FOR THE SCHEMATIC PROTECTION AND EARTHING DIAGRAM.

7	LOGO CHANGED AS PER NEW CORPORATE ID	PBM	T. NKAMBULE	30.08.06		
6	REAR VIEW CLARIFIED AND CONNECTIONS SHOWN FOR WOOD POLES	P.A.V.	T.GILLARD G.WHYTE	13.07.01		
5	VARIOUS AMMENDMENTS MADE	J.F.S.	A.ABROSIE P.CROWDY	22.06.99		
4	ELECTRODE DEPTH CHANGED AND NEW DRAWING ADDED WAS D-DT-0627	P.A.V.	A.ABROSIE P.CROWDY	01.02.96		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

		EARTHING TRANSFORMER SINGLE POLE MOUNTING (MV & LV ELECTRODE AT TRANSFORMER)			
		D-DT-0627			
AUTH: S.A. CILLIERS	DATE: 10.01.1994	CHKD: K.ROZMIAREK	DATE: 20.10.1991	DRAWN: ETR + OTS J.L.GROBLER	DATE: 20.10.1991
			SET	SHEET	REVISION
			2	1	7



NOTES:-

1. THE NEUTRAL MUST BE EARTHED AT THE FIRST POLE ONE SPAN AWAY FROM THE TRANSFORMER ON EACH OF THE LV DISTRIBUTORS.
2. REFER TO D-DT-0642 FOR DETAIL OF CONNECTIONS WITHIN EARTH ELECTRODES.
3. THE STEELWORK, TRANSFORMER TANK AND MV SA'S ARE TO BE BONDED AND CONNECTED TO THE MV EARTH ELECTRODE.
4. REFER TO D-DT-0630 FOR THE SCHEMATIC PROTECTION AND EARTHING DIAGRAM.

7	LOGO CHANGED AS PER NEW CORPORATE ID	PBM	T. NKAMBULE	30.08.06		
6	REAR VIEW CLARIFIED AND CONNECTIONS SHOWN FOR WOOD POLES	P.A.V.	T.GILLARD	G.WHYTE	13.07.01	
5	VARIOUS AMMENDMENTS MADE	J.F.S.	A.ABROSIE	P.CROWDY	22.06.99	
4	ELECTRODE DEPTH CHANGED AND NEW DRAWING ADDED WAS D-DT-0627	P.A.V.	A.ABROSIE	P.CROWDY	01.02.96	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

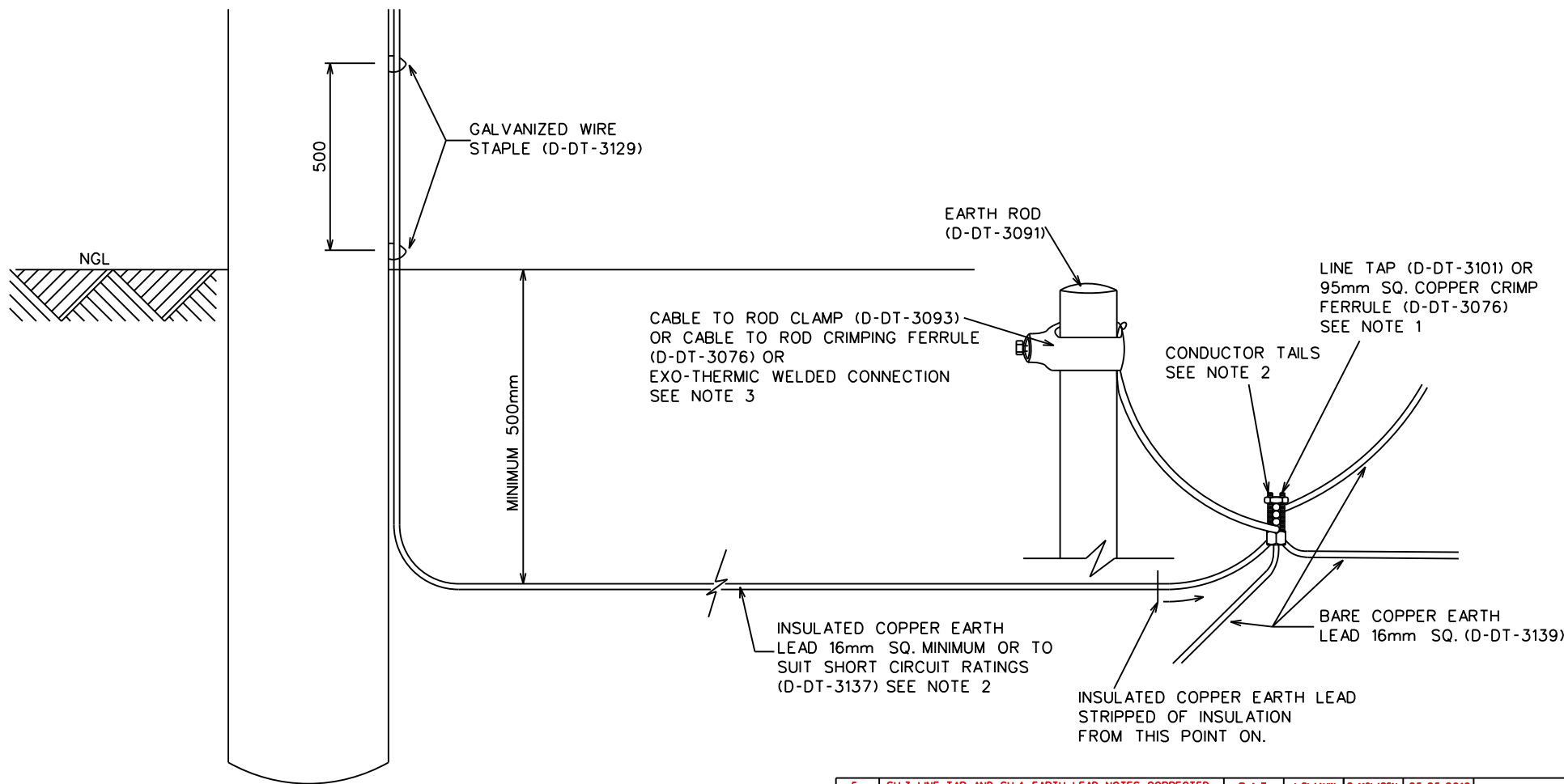


EARTHING
TRANSFORMER
SINGLE POLE MOUNTING
(MV ELECTRODE AT TRANSFORMER AND
LV ELECTRODE ONE SPAN AWAY)

AUTH:	S.A. CILLIERS
DATE:	10.01.1994
CHKD:	K.ROZMAREK
DATE:	20.10.1991
DRAWN:	ETR · OTS J.L.GROBLER
DATE:	20.10.1991

D-DT-0627

SET	SHEET	REVISION
2	2	7



NOTE :

1. A DEEP INDENT CRIMP MAY BE USED ON THE 95mm SQ. COPPER FERRULE. THE CONNECTION AT THE MAIN JUNCTION POINT OF A THREE POINT STAR OR ALTERNATIVE ELECTRODE IS CRITICAL. AN EARTH ROD CLAMP (D-DT-3093) IS NOT SUITABLE FOR THIS CONNECTION.
2. WHEN USING A CABLE TO ROD CLAMP (D-DT-3093), THE CLAMP BOLT IS TIGHTENED ONTO THE EARTH ROD AND NOT THE COPPER LEAD.
3. THE INSULATION ON THE 16mm SQ. INSULATED CONDUCTOR FROM THE TRANSFORMER MUST BE STRIPPED BACK TO ENABLE A CONNECTION TO THE FERRULE OR LINE TAP.

5	SH.3 LINE TAP AND SH.4 EARTH LEAD NOTES CORRECTED	P.A.T.	J. BLAAUW	B. MCLAREN	25.05.2016	
4	MEDIUM AND HIGH THEFT AREAS ADDED	P.A.T.	J. BLAAUW	B. MCLAREN	15.04.2016	
3	70mm SQ. CU CRIMP FERRULE CHANGED TO 95mm SQ. CU CRIMP FERRULE	P.A.T.	L. CHRISTIANS	T. NKAMBULE	24.04.2007	
2	DISCRIPTION INDICATION CORRECTED	P.A.V.		R. KELLY	24.04.2007	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

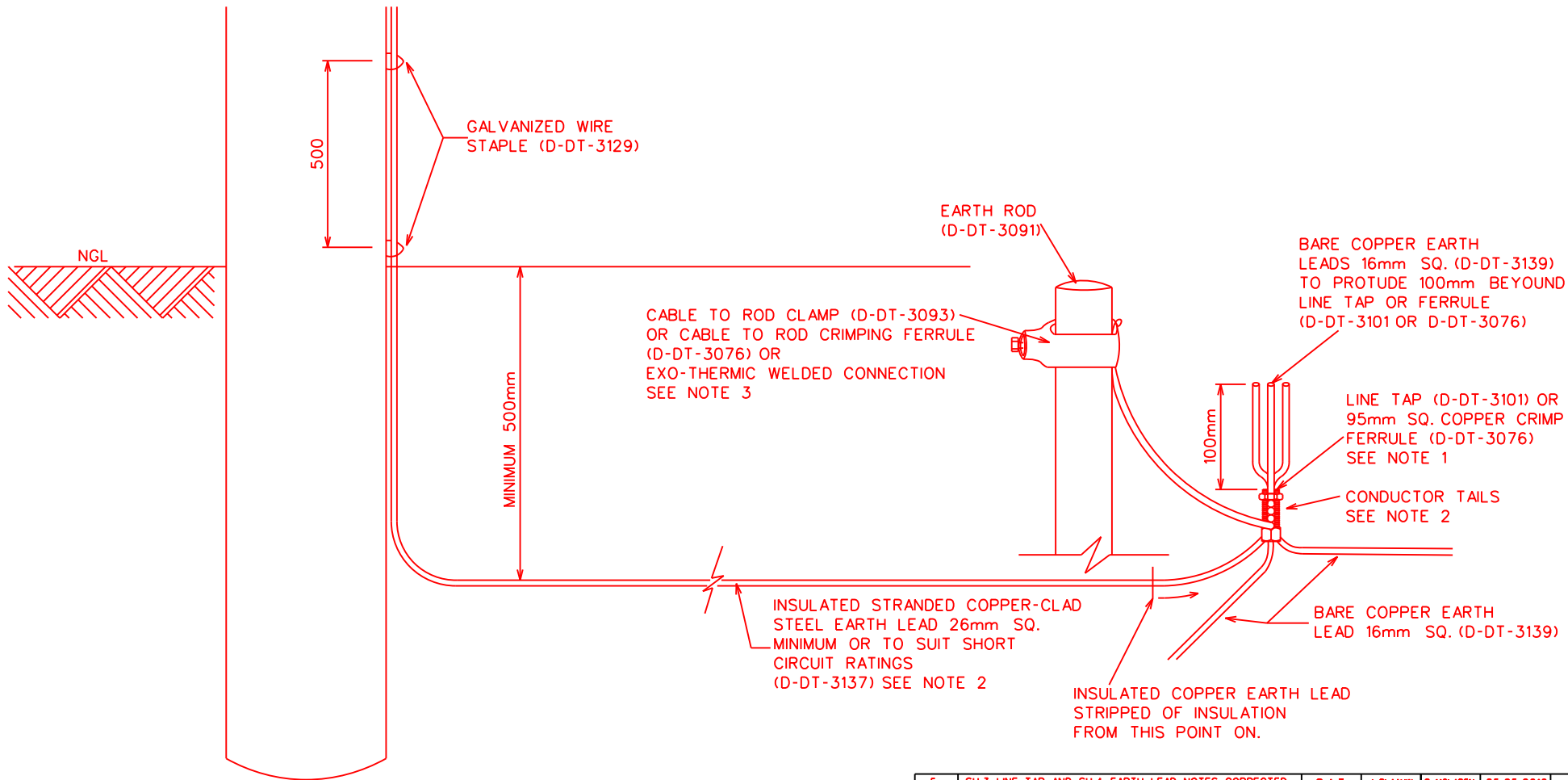


AUTH: P. CROWDY
 DATE: 19.11.1999
 CHKD: A. ABROSIE
 DATE: 19.11.1999
 DRAWN: J.F.S.
 DATE: 29.06.1999

EARTHING
 MV AND LV EARTH
 ELECTRODES DETAILS

D-DT-0642

SET	SHEET	REVISION
4	1	5



NOTE :

1. A DEEP INDENT CRIMP MAY BE USED ON THE 95mm SQ. COPPER FERRULE. THE CONNECTION AT THE MAIN JUNCTION POINT OF A THREE POINT STAR OR ALTERNATIVE ELECTRODE IS CRITICAL. AN EARTH ROD CLAMP (D-DT-3093) IS NOT SUITABLE FOR THIS CONNECTION.
2. INSULATED SINGLE CORE 5.19mm DIA. COPPER-CLAD STEEL CONDUCTOR (D-DT-3137) MAY BE USED AS AN ALTERNATIVE EARTH LEAD IN AREAS WHERE COPPER THEFT IS OF CONCERN. WHERE COPPER-CLAD STEEL CONDUCTOR IS USED, THE CONDUCTOR TAILS MUST PROTRUDE FROM THE MAIN JUNCTION POINT CONNECTION BY 100mm.
3. WHEN USING A CABLE TO ROD CLAMP (D-DT-3093), THE CLAMP BOLT IS TIGHTENED ONTO THE EARTH ROD AND NOT THE COPPER LEAD.
4. THE INSULATION ON THE 16mm SQ. INSULATED CONDUCTOR FROM THE TRANSFORMER MUST BE STRIPPED BACK TO ENABLE A CONNECTION TO THE FERRULE OR LINE TAP.

5	SH.3 LINE TAP AND SH.4 EARTH LEAD NOTES CORRECTED	P.A.T.	J. BLAAUW	B. MCLAREN	25.05.2016	
4	MEDIUM AND HIGH THEFT AREAS ADDED	P.A.T.	J. BLAAUW	B. MCLAREN	15.04.2016	
3	70mm SQ. CU CRIMP FERRULE CHANGED TO 95mm SQ. CU CRIMP FERRULE	P.A.T.	L. CHRISTIANS	T. NKAMBULE	24.04.2007	
2	DISCRPTION INDICATION CORRECTED	P.A.V.	R. KELLY		24.04.2007	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

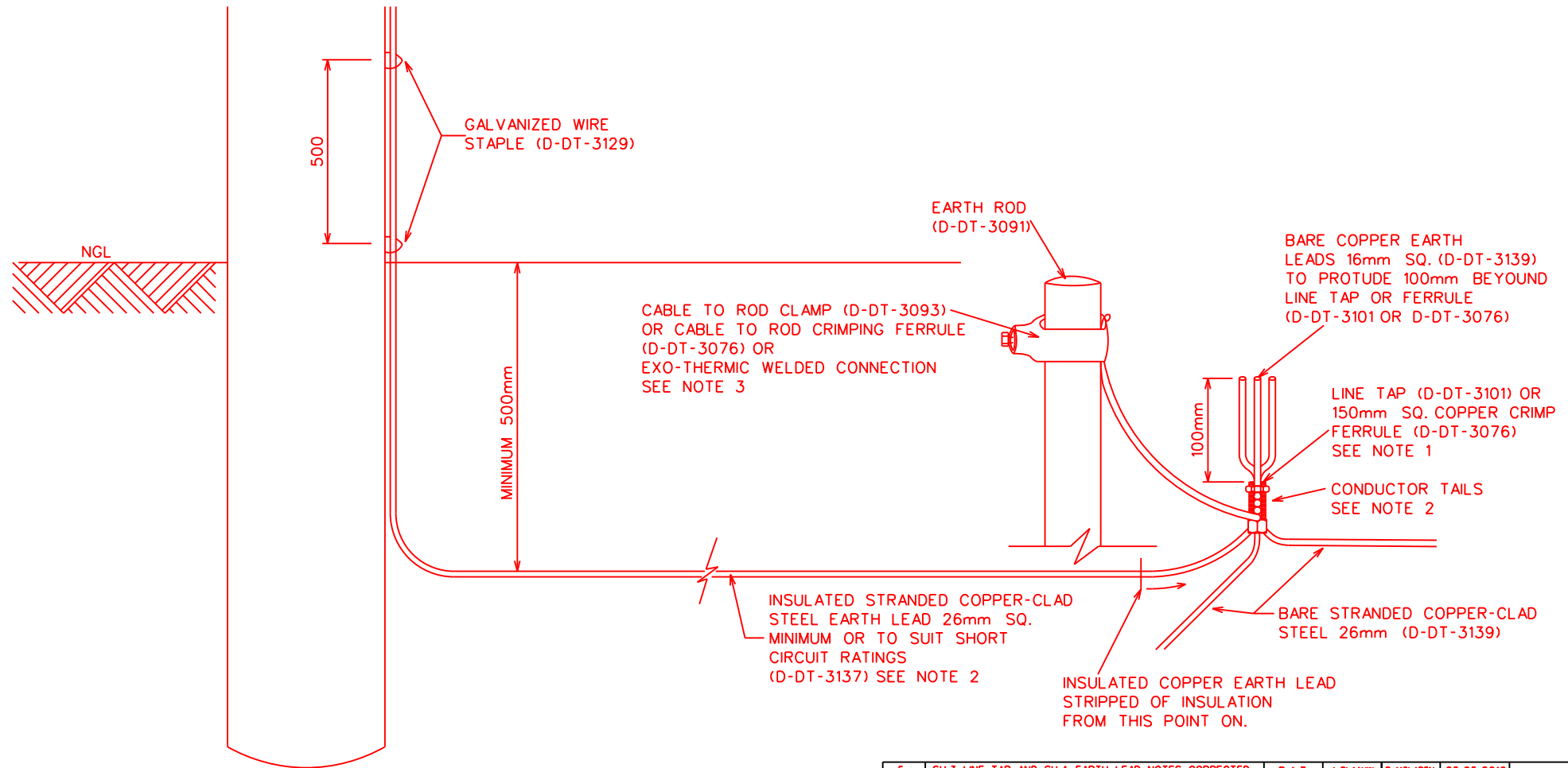


AUTH: P. CROWDY
 DATE: 19.11.1999
 CHKD: A. ABROSIE
 DATE: 19.11.1999
 DRAWN: J.F.S.
 DATE: 29.06.1999

**EARTHING
 MV AND LV EARTH
 ELECTRODES DETAILS
 (MEDIUM THEFT AREAS)**

D-DT-0642

SET	SHEET	REVISION
4	2	5



NOTE :

1. A DEEP INDENT CRIMP MAY BE USED ON THE 150mm SQ. COPPER FERRULE. THE CONNECTION AT THE MAIN JUNCTION POINT OF A THREE POINT STAR OR ALTERNATIVE ELECTRODE IS CRITICAL. AN EARTH ROD CLAMP (D-DT-3093) IS NOT SUITABLE FOR THIS CONNECTION.
2. COPPER-CLAD STEEL CONDUCTOR TAILS MUST PROTRUDE FROM THE MAIN JUNCTION POINT CONNECTION BY 100mm.
3. WHEN USING A CABLE TO ROD CLAMP (D-DT-3093), THE CLAMP BOLT IS TIGHTENED ONTO THE EARTH ROD AND NOT THE COPPER LEAD.
4. THE INSULATION ON THE COPPER-CLAD STEEL INSULATED CONDUCTOR FROM THE TRANSFORMER MUST BE STRIPPED BACK TO ENABLE A CONNECTION TO THE FERRULE OR LINE TAP.

5	SH.3 LINE TAP AND SH.4 EARTH LEAD NOTES CORRECTED	P.A.T.	J. BLAAUW	B. MCLAREN	25.05.2016	
4	MEDIUM AND HIGH THEFT AREAS ADDED	P.A.T.	J. BLAAUW	B. MCLAREN	15.04.2016	
3	70mm SQ. CU CRIMP FERRULE CHANGED TO 95mm SQ. CU CRIMP FERRULE	P.A.T.	L. CHRISTIANS	T. NKAMBULE	24.04.2007	
2	DISCRPTION INDICATION CORRECTED	P.A.V.		R. KELLY	24.04.2007	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: P. CROWDY

DATE: 19.11.1999

CHKD: A. ABROSIE

DATE: 19.11.1999

DRAWN: J.F.S.

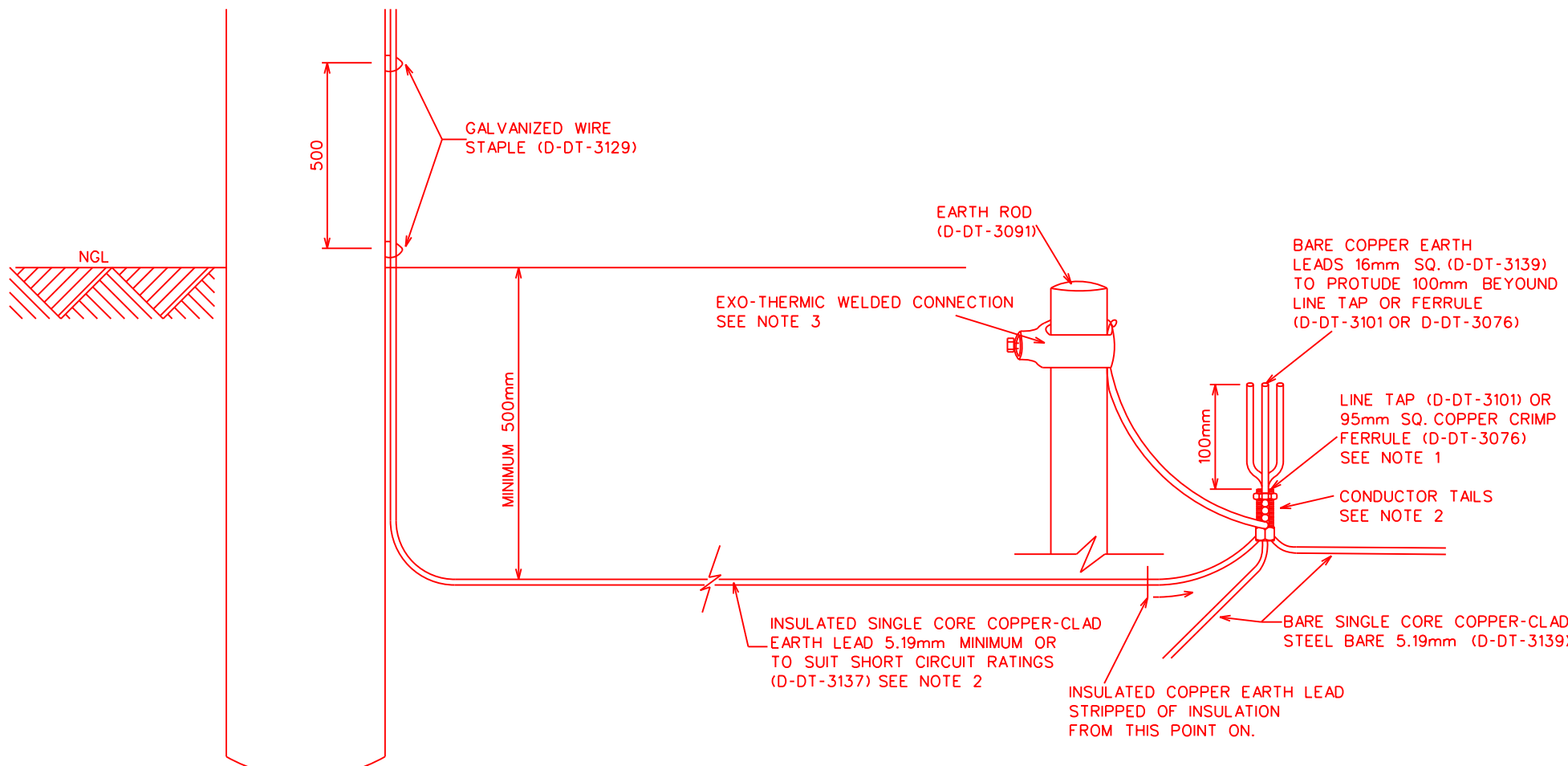
DATE: 29.06.1999

EARTHING
MV AND LV EARTH
ELECTRODES DETAILS
(HIGH THEFT AREAS)

D-DT-0642

SET	SHEET	REVISION
-----	-------	----------

4	3	5
---	---	---



NOTE :

1. A DEEP INDENT CRIMP MAY BE USED ON THE 95mm SQ. COPPER FERRULE. THE CONNECTION AT THE MAIN JUNCTION POINT OF A THREE POINT STAR OR ALTERNATIVE ELECTRODE IS CRITICAL. AN EARTH ROD CLAMP (D-DT-3093) IS NOT SUITABLE FOR THIS CONNECTION.
2. COPPER-CLAD STEEL CONDUCTOR TAILS MUST PROTRUDE FROM THE MAIN JUNCTION POINT CONNECTION BY 100mm.
3. THE INSULATION ON THE COPPER-CLAD STEEL INSULATED CONDUCTOR FROM THE TRANSFORMER MUST BE STRIPPED BACK TO ENABLE A CONNECTION TO THE FERRULE OR LINE TAP.

5	SH.3 LINE TAP AND SH.4 EARTH LEAD NOTES CORRECTED	P.A.T.	J. BLAAUW	B. MCLAREN	25.05.2016	
4	MEDIUM AND HIGH THEFT AREAS ADDED	P.A.T.	J. BLAAUW	B. MCLAREN	15.04.2016	
3	70mm SQ. CU CRIMP FERRULE CHANGED TO 95mm SQ. CU CRIMP FERRULE	P.A.T.	L. CHRISTIANSEN	T. NKAMBULE	24.04.2007	
2	DISCRIPTION INDICATION CORRECTED	P.A.V.	R. KELLY		24.04.2007	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

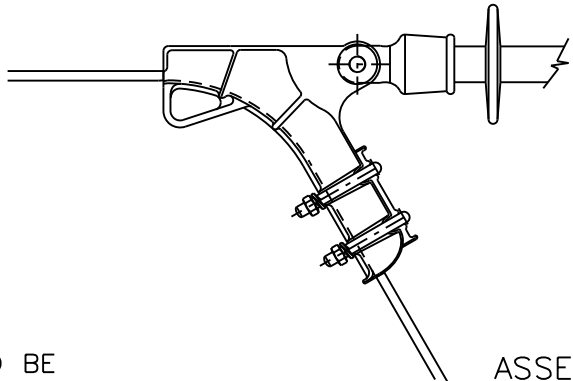
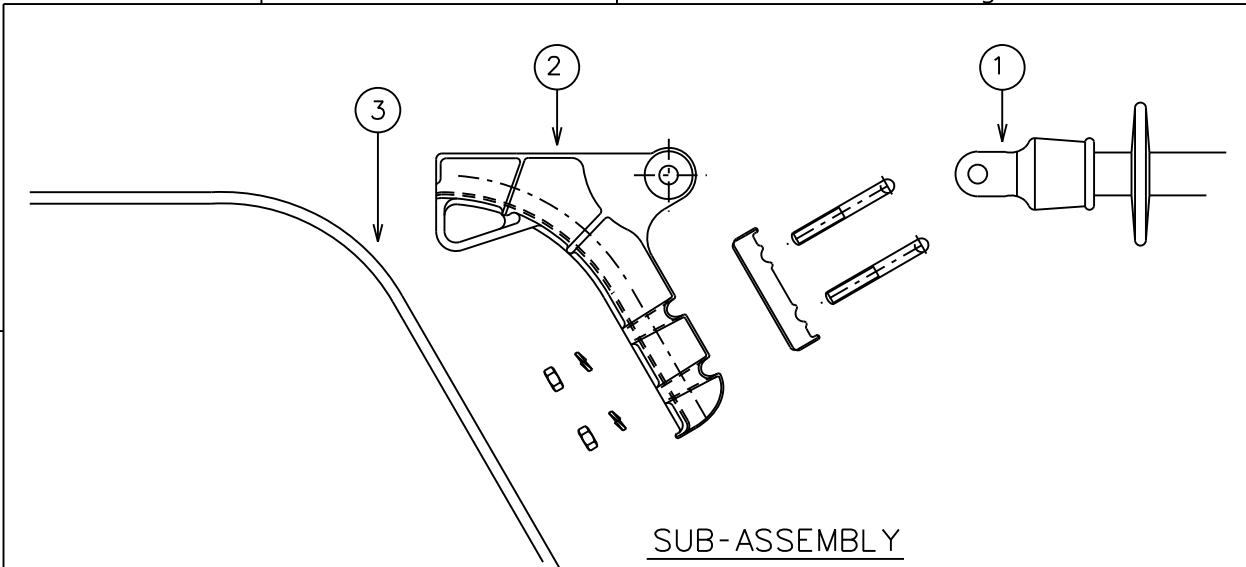


AUTH:	P. CROWDY
DATE:	19.11.1999
CHKD:	A. ABROSIE
DATE:	19.11.1999
DRAWN:	J.F.S.
DATE:	29.06.1999

**EARTHING
MV AND LV EARTH
ELECTRODES DETAILS
(HIGH THEFT AREAS-ALTERNATIVE)**

D-DT-0642

SET	SHEET	REVISION
4	4	5



NOTE :
TORQUE ON BOLTS TO BE
RAISED EVENLY TO 40Nm

REF	DESCRIPTION	DRAWING NO.
1	22kV LONG ROD INSULATOR 33kV LONG ROD INSULATOR	(D-DT-3042) (D-DT-3190)
2	PISTOL GRIP	(D-DT-7022)
3	CONDUCTOR	(D-DT-3136)

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
3	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	20.06.09	
2	ALUMINIUM TAPE REMOVED	P.A.V.	B. HILL	B. HILL	06.10.2003	
1	PISTOL GRIP DRAWING No. CORRECTED	P.A.V.	B. HILL	P.CROWDY	11.02.2000	

		MV INSULATOR/CONDUCTOR ASSEMBLY STRAIN PISTOL GRIP				
					AUTH: B.BRANFIELD DATE: 11.01.1999 CHKD: B.BRANFIELD DATE: 11.01.1999	
DRAWN: M. SMALL P.A.VERMAAK DATE: 03.08.1998		D-DT-0251		SET 1	SHEET 1	REVISION 3

1

2

3

4

A

A

B

B

C

C

D

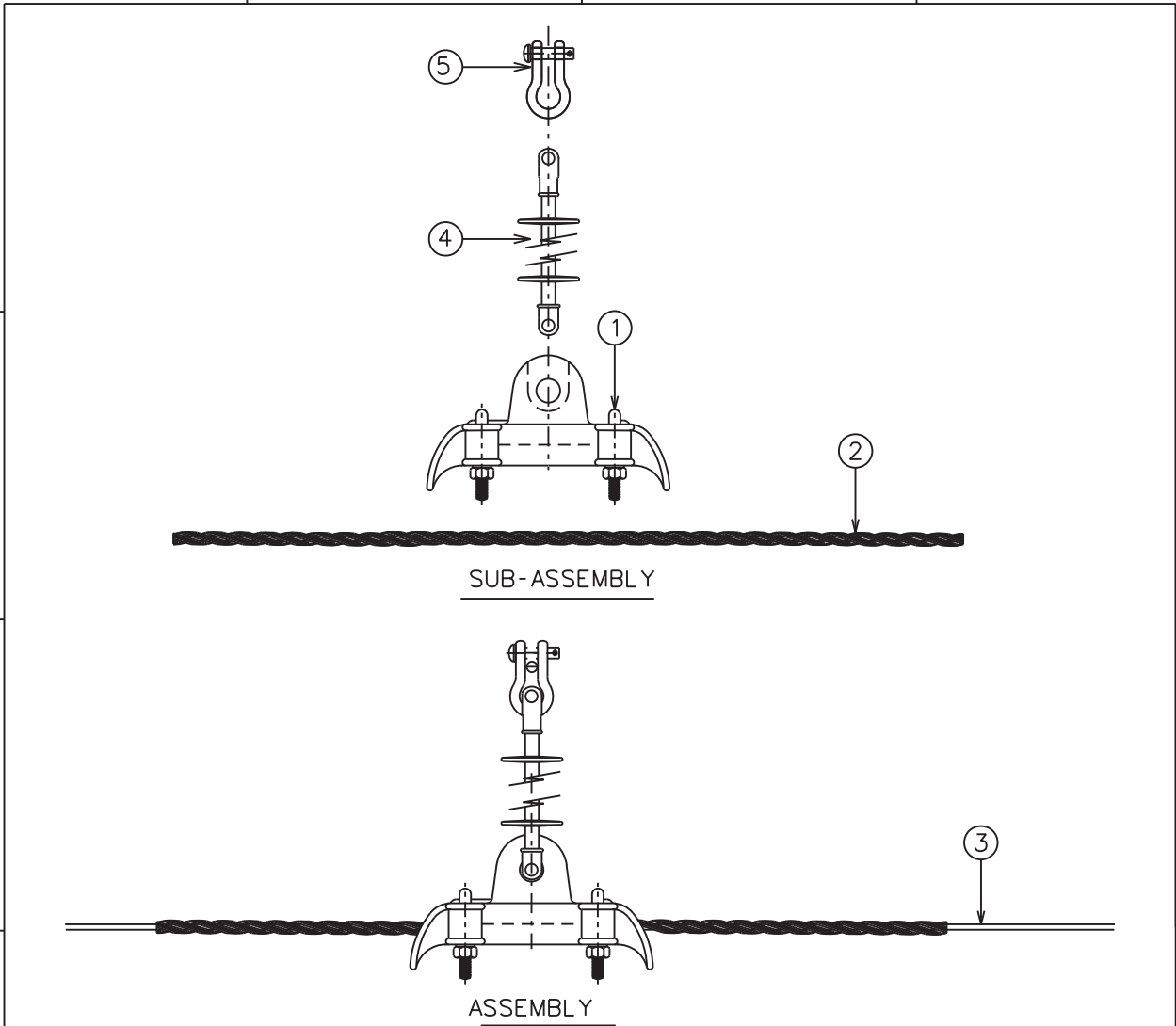
D

E

E

F

F



REF	DESCRIPTION	DRAWING NO.
1	SUSPENSION CLAMP	(D-DT-3008)
2	ARMOUR ROD	(D-DT-3064)
3	CONDUCTOR	(D-DT-3136)
4	22kV LONG ROD INSULATOR 33kV LONG ROD INSULATOR	(D-DT-3042) (D-DT-3190)
5	D SHACKLE	(D-DT-3010)

3	COMPOSITE INSULATOR ADDED	P.A.T.	P.A.T.	P.A.T.	18.05.17	
2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	20.06.09	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

		<p>MV INSULATOR / CONDUCTOR ASSEMBLY SUSPENSION - CRADLE CLAMP AND ARMOUR RODS</p>				
AUTH: B.BRANFIELD						
DATE: 11.01.1999						
CHKD: B.BRANFIELD						
DATE: 11.01.1999						
DRAWN: M. SMALL P.A.V.						
DATE: 05.08.1998		<p>D-DT-0253</p>		SET	SHEET	REVISION
				2	1	3

1

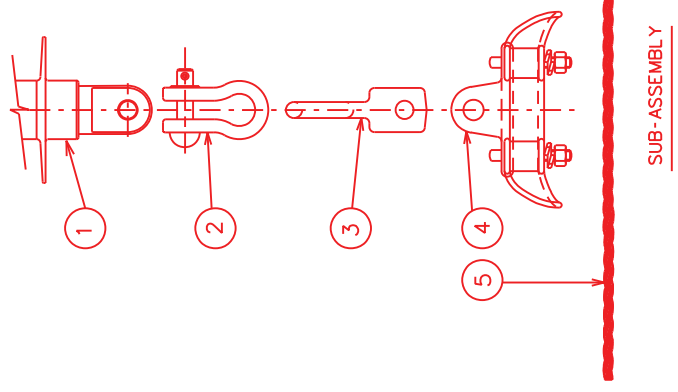
2

3

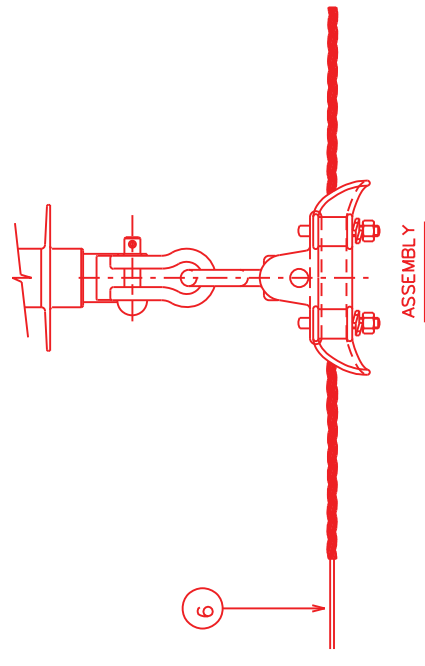
4 A4L

1 2 3 4 5 6 7 8

A B C D E F



SUB-ASSEMBLY



ASSEMBLY

REF	DESCRIPTION	DRAWING NO.
1	22kV LINE POST INSULATOR - COMPOSITE	(D-DT-3017)
2	D SHACKLE	(D-DT-3010)
3	TWISTED TONGUE EYE LINK	(D-DT-3246)
4	SUSPENSION CLAMP	(D-DT-3008)
5	ARMOUR ROD	(D-DT-3064)
6	CONDUCTOR	(D-DT-3136)

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
3	COMPOSITE INSULATOR ADDED			P.A.T.	18.05.17	
2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.		P.A.T.	20.06.09	

Eskom

AUTH: B.BRANFIELD
 DATE: 11.01.1999
 CHKD: B.BRANFIELD
 DATE: 11.01.1999
 DRAWN: M. SMALL
 P.A.V.
 DATE: 05.08.1998

**MV 22kV COMPOSITE INSULATOR
 CONDUCTOR ASSEMBLY - SUSPENSION
 EYE LINK, CRADLE CLAMP AND ARMOUR RODS**

D-DT-0253	SET	2	SHEET	2	REVISION	3
-----------	-----	---	-------	---	----------	---

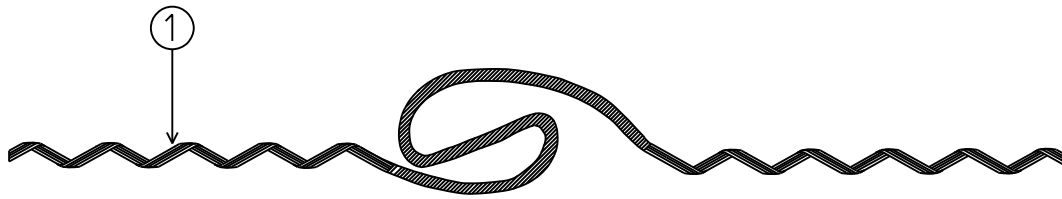
1 2 3 4 5 6 7 8 A3L

1

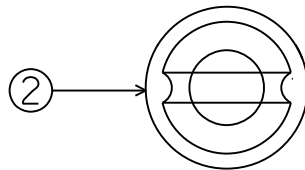
2

3

A

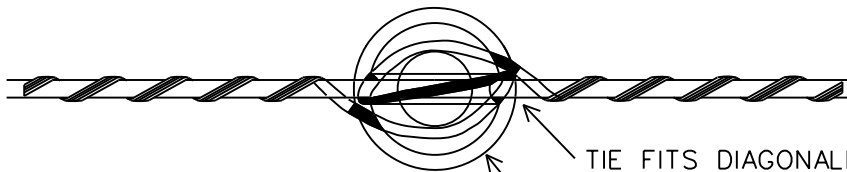


B



SUB-ASSEMBLY

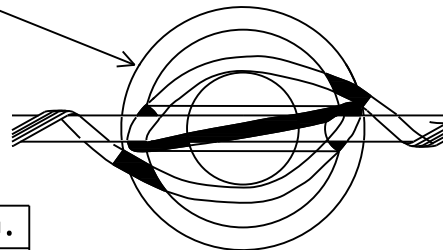
C



ASSEMBLY (TOP VIEW)

TIE FITS DIAGONALLY OVER CONDUCTOR, THEN BACK UNDER INSULATOR LIP.

D



ENLARGED DETAIL

REF	DESCRIPTION	DRAWING NO.
1	TOP GROOVE TIE	(D-DT-3081)
2	22kV POST INSULATOR	(D-DT-3017)
	33kV POST INSULATOR	(D-DT-3189)

4	SHEET 3 TRUNNION TYPE POST CAP INSULATOR ADDED	P.A.T.	B.MCLAREN	B. HILL	18/05/2017	
3	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	20/06/2009	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

E



MV INSULATOR / CONDUCTOR ASSEMBLY
 POSTS - TOP GROOVE TIE - (WRAPLOCK)
 (FOR COASTAL APPLICATIONS)

AUTH: B.BRANFIELD

DATE: 11/01/1999

CHKD: B.BRANFIELD

DATE: 11/01/1999

DRAWN: M.SMALL
P.A.VERMAAK

DATE: SEPT 1998

D-DT-0256

SET	SHEET	REVISION
3	1	4

F

1

2

3

4 A4L

1

2

3

A

B

C

D

E

F

①

②

SUB-ASSEMBLY

ASSEMBLY
(TOP VIEW)

ENLARGED DETAIL

REF	DESCRIPTION	DRAWING NO.
1	TOP GROOVE TIE	(D-DT-3081)
2	22kV POST INSULATOR 33kV POST INSULATOR	(D-DT-3017) (D-DT-3189)

4	SHEET 3 TRUNNION TYPE POST CAP INSULATOR ADDED	P.A.T.	B.MCLAREN	B. HILL	18/05/2017	
3	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	20/06/2009	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



MV INSULATOR / CONDUCTOR ASSEMBLY
POSTS - TOP GROOVE TIE - (TOP TIE)
(FOR INLAND APPLICATIONS)

AUTH: B.BRANFIELD
 DATE: 11/01/1999
 CHKD: B.BRANFIELD
 DATE: 11/01/1999
 DRAWN: M.SMALL
 P.A.VERMAAK
 DATE: SEPT 1998

D-DT-0256

SET	SHEET	REVISION
3	2	4

1

2

3

4 A4L

1

2

3

A

B

C

D

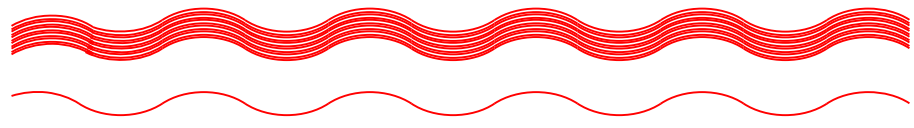
E

F

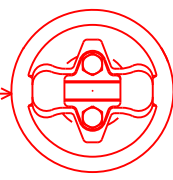
1



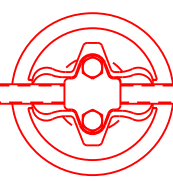
ARMOUR ROD HELICALLY FORMED



2



SUB-ASSEMBLY



ASSEMBLY
(TOP VIEW)

REF	DESCRIPTION	DRAWING NO.
1	ARMOUR ROD HELICALLY FORMED	(D-DT-3064)
2	22kV TRUNNION POST INSUL. 33kV TRUNNION POST INSUL.	(D-DT-3017) (D-DT-3189)

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
4	SHEET 3 TRUNNION TYPE POST CAP INSULATOR ADDED	P.A.T.	B.MCLAREN	B. HILL	18/05/2017	
3	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	20/06/2009	



MV INSULATOR / CONDUCTOR ASSEMBLY
TRUNNION LINE POSTS CAP AND
PREFORMED ARMOUR ROD

AUTH: B.BRANFIELD
DATE: 11/01/1999
CHKD: B.BRANFIELD
DATE: 11/01/1999
DRAWN: M.SMALL P.A.VERMAAK
DATE: SEPT 1998

D-DT-0256

SET	SHEET	REVISION
3	3	4

1

2

3

4 A4L

1

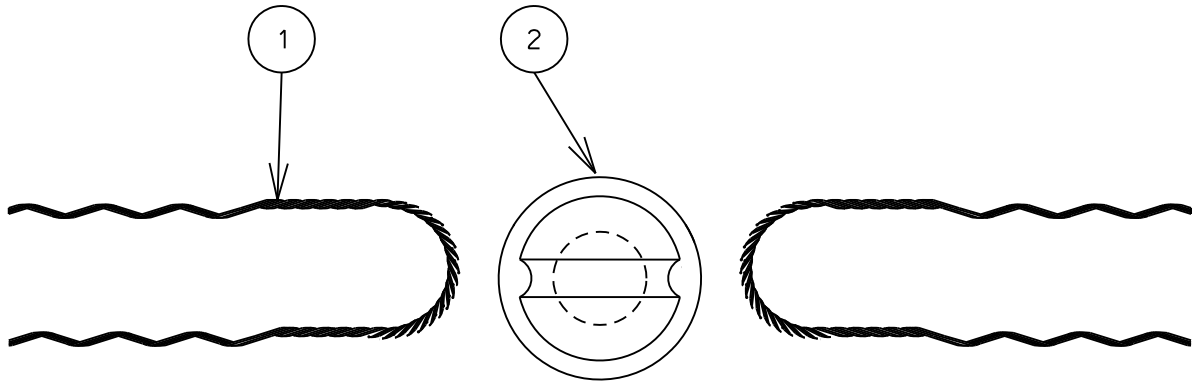
2

3

4

A

A



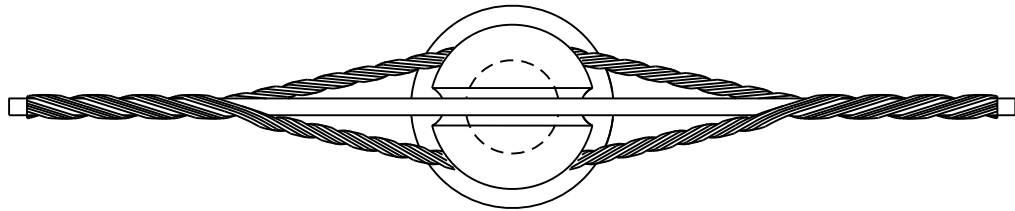
B

B

SUB-ASSEMBLY

C

C

ASSEMBLY
(TOP VIEW)

D

D

REF	DESCRIPTION	DRAWING NO.
1	ROAD CROSSING FULL WRAP TOP GROOVE TIE	(D-DT-3211)
2	22kV POST INSULATOR 33kV POST INSULATOR	(D-DT-3017) (D-DT-3189)

3	CORRECT DRG.NO. ADDED FOR ITEM 1	P.A.T.	D.RAMJASS	B.HILL	20.06.09	
2	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	20.06.09	
1	CUSHION PAD REMOVED	P.A.V.	B.HILL	B.HILL	06.10.03	

E

E

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
-----	----------------------	----	------	------	------	-------------



AUTH: B.BRANFIELD

DATE: 11.01.1999

CHKD: B.BRANFIELD

DATE: 11.01.1999

DRAWN: M. SMALL
P.A.V.

DATE: SEPT.1998

MV INSULATOR / CONDUCTOR ASSEMBLY
POSTS - ROAD CROSSING
FULL WRAP TOP GROOVE TIE

F

F

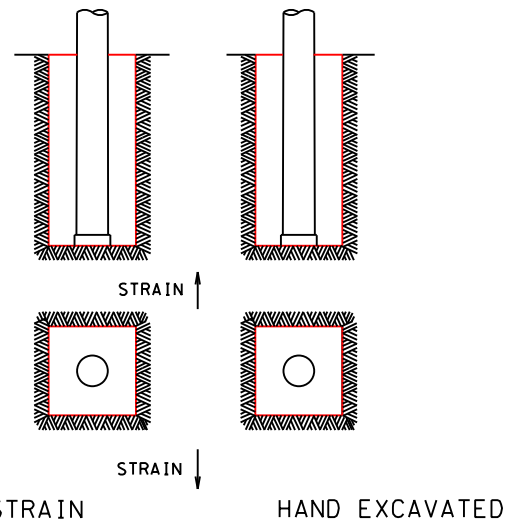
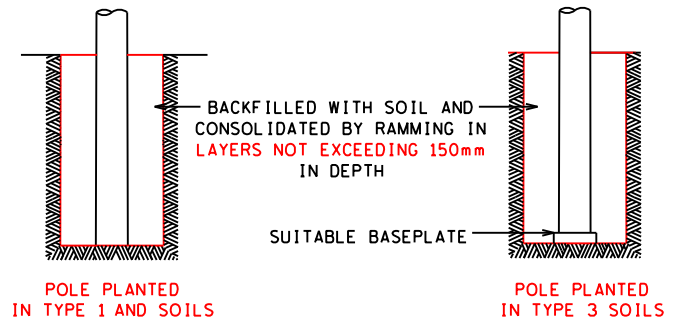
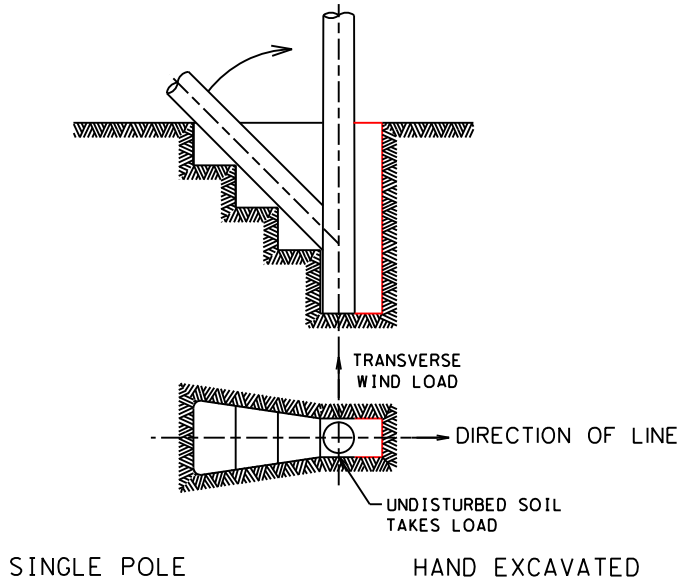
D-DT-0257	SET	SHEET	REVISION
	1	1	3

1

2

3

4 A4L



- NOTE:**
1. CONSTRUCTION TEAMS SHOULD TAKE STEPS TO IMPROVE THE FOUNDATIONS OF THE INDIVIDUAL POLES AS AND WHEN BAD SOIL CONDITIONS ARE MET WITH ON SITE. THIS MAY INVOLVE THE USE OF KICKING BLOCKS OR SOIL-CEMENT (10:1) BACK FILLING OF THE EXCAVATIONS.
 2. FOR FOUNDATIONS SHORING TO BE USED AS PER OSH ACT REQUIREMENT.
 3. ABOVE DRAWINGS ARE GENERIC AND NOT EXACT.
 4. ONLY FOR SOIL TYPES 1 AND 2
 5. FOR SOIL TYPES SEEK PROFESSIONAL ADVISE.
 6. POLE COMPACTION TO BE AROUND THE POLE IN 150mm LAYERS.

6	POLES ARE TO BE COMPACTIONED AROUND THE POLE. POLES NOT TO BE BRANCH AGAINST THE UNDISTURBED SOIL. NOTES CHANGED	P.A.T.	B. HILL	B. HILL	06.06.17	
5	LOGO CHANGED AS PER NEW CORPORATE ID	PBM	P.A.V.	P.A.V.	26.10.04	
4	DIRECTION ARROW SHOWN FOR SINGLE POLE	P.A.V.	B.BRANFIELD		11.01.99	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
		LV & MV RETICULATION TYPE 1 AND 2 TYPE SOILS POLE FOUNDATION ARRANGEMENT				
AUTH: S.A CILLIERS		SET		SHEET	REVISION	
DATE: 10.01.1994		1		1	6	
CHKD: NJVR		D-DT-0330				
DATE: 9.3.93						
DRAWN: ZW						
DATE: 1.9.92						

1 2 3 4 5 6 7 8

A

B

C

D

E


F

WOOD POLES

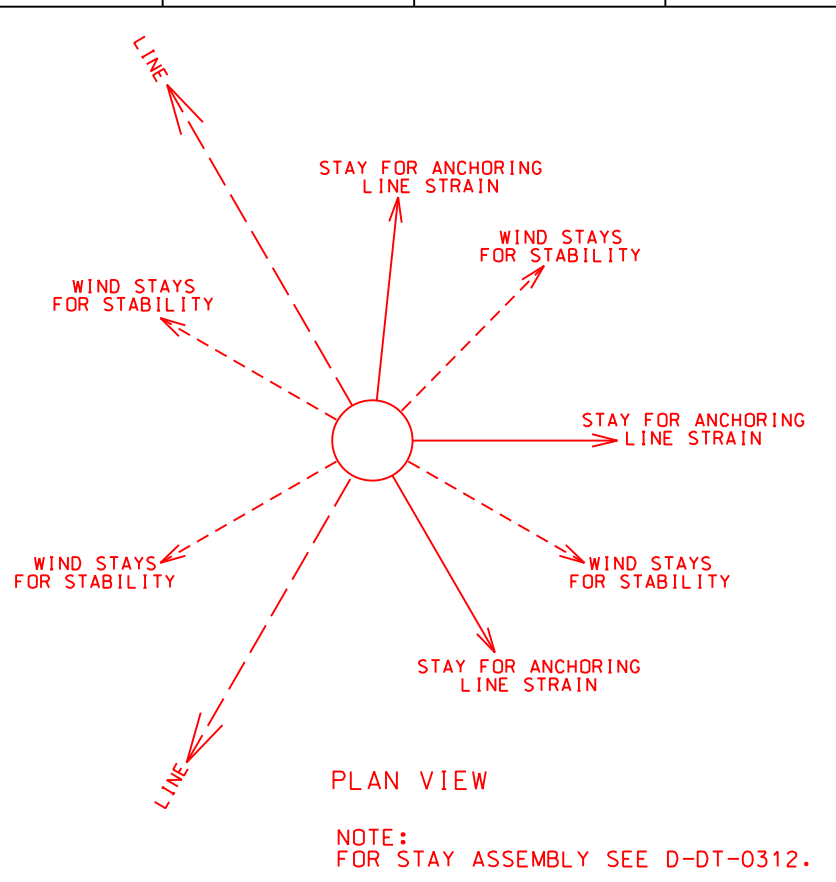
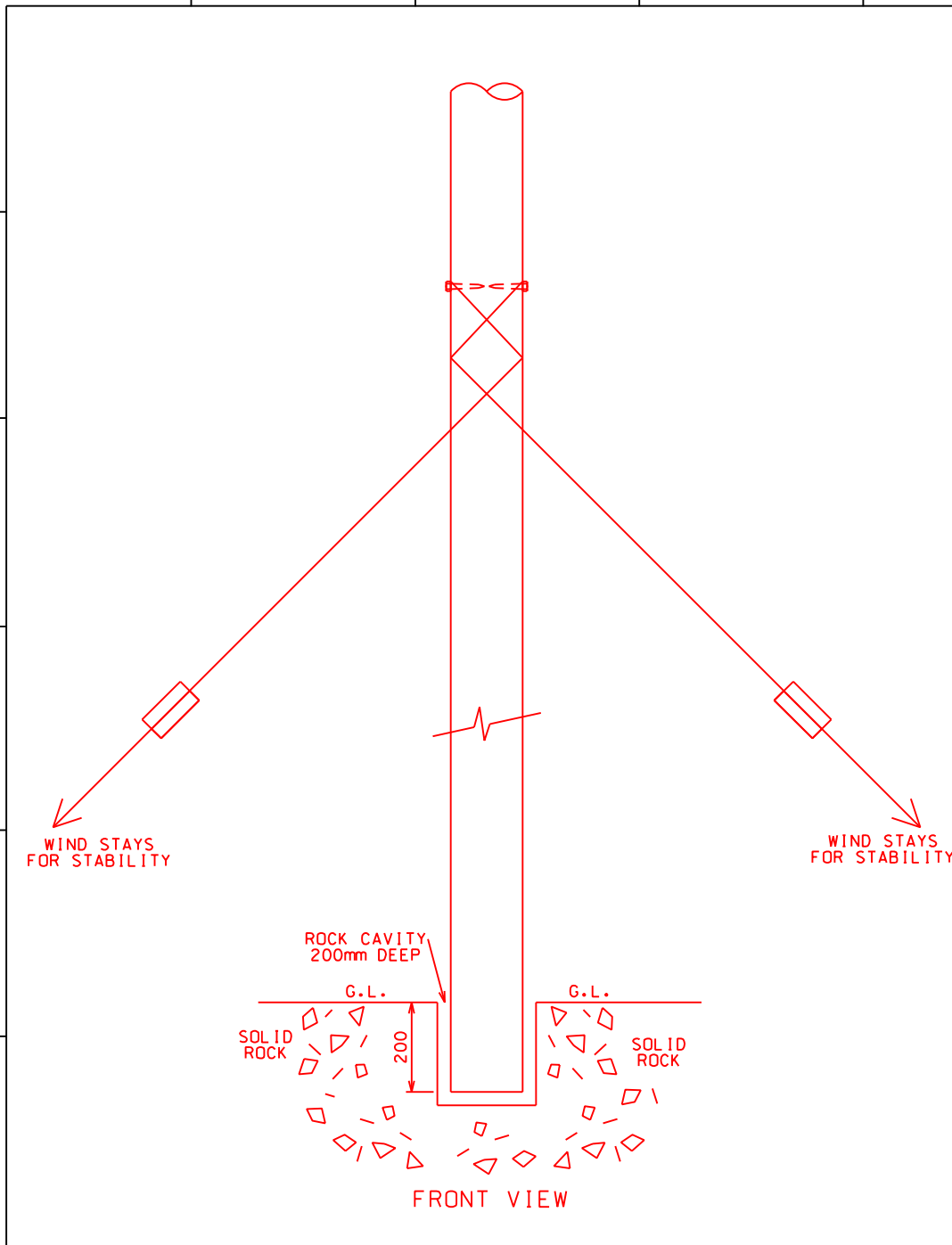
POLE LENGTH	POLE TOP	APPLICATION	PLANTING DEPTH
5m (D-DT-0058)	80-100	SERVICE CONN.	1.0m
5.7m (D-DT-0047)	100-119	LV ABC	BASE PLATE SEE (D-DT-3197)
7m (D-DT-0050)	100-120 120-139	LV ABC	1.3m
9m (D-DT-0055)	140-159 160-179 180-199	LV BAREWIRE ABC & MV	1.5m
10m (D-DT-0052)	160-179 180-199 200-219	MV	1.7m
11m (D-DT-0051)	160-179 180-199 200-219	MV MV TRFRS.	1.8m
12m (D-DT-0053)	160-179 180-199 200-219	MV	2m
13m (D-DT-0056)	160-179 180-199	MV SPECIAL APPLICATION	2.2m
14m (D-DT-0054)	160-179 180-199 200-219	MV SPECIAL APPLICATION	2.2m
15m (D-DT-0057)	200-219	MV	2.2m
16m (D-DT-0049)	180-199 200-219	MV SPECIAL APPLICATION	2.2m
18m (D-DT-0048)	180-199 200-219	MV SPECIAL APPLICATION	2.4m

CONCRETE POLES

POLE LENGTH	APPLICATION	PLANTING DEPTH
4m (D-DT-0001)	SERV. CONN.	0.8m
7m (D-DT-0002)	ABC	1.3m
9m (D-DT-0003)	MV, LV.	1.5m
10m (D-DT-0007)	MV, LV, ROAD CROS.	1.8m
10m TRFR (D-DT-0007)	MV, LV., TRFRS.	1.8m
11m (D-DT-0004)	MV	1.8m
12m (D-DT-0005)	MV	2m
13m	MV	2.2m
14m	MV	2.3m

8	POLE PLANTED IN SOLID ROCK ADDED	P.A.T.	B. HILL	B. HILL	20.04.2017	
7	FIELD LINERS REMOVED AND 13m AND 14m CONCRETE POLES ADDED	P.A.V.	B. HILL	B. HILL	09.10.2003	
6	WOOD POLE TABLE UPDATED	P.A.V.	B.BRANFIELD	B.BRANFIELD	11.01.1999	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
		LV AND MV POLE PLANTING DEPTH DETAILS				
AUTH: P.CROWDY						
DATE: 08.11.1994						
CHKD: B.HILL						
DATE: 08.11.1994				SET	SHEET	REVISION
DRAWN: P.A.V.		D-DT-0332		2	1	8
DATE: 20.10.1994						

1 2 3 4 5 6 7 8 A3L

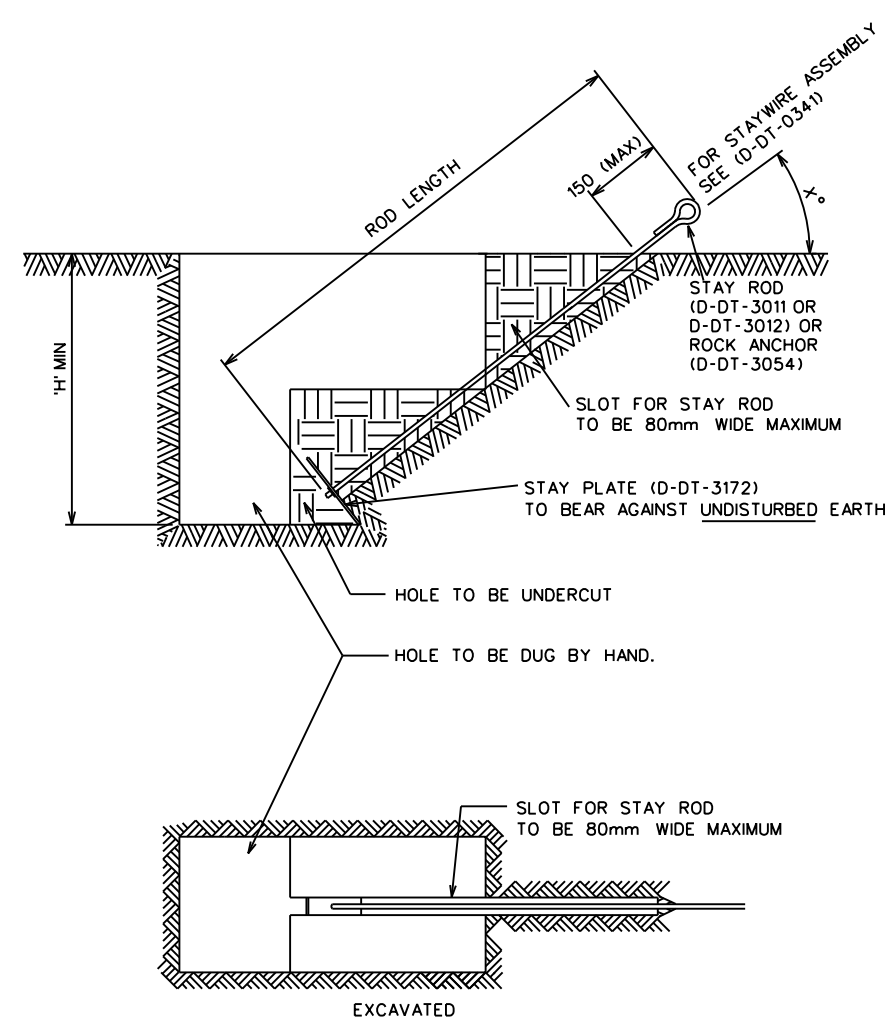


8	POLE PLANTED IN SOLID ROCK ADDED	P.A.T.	B. HILL	B. HILL	20.04.2017	
7	FIELD LINERS REMOVED AND 13m AND 14m CONCRETE POLES ADDED	P.A.V.	B. HILL	B. HILL	09.10.2003	
6	WOOD POLE TABLE UPDATED	P.A.V.	B.BRANFIELD	B.BRANFIELD	11.01.1999	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

		POLE PLANTING DEPTH IN SOLID ROCK (SHOWING STAYS)				
						AUTH: P.CROWDY
DATE: 08.11.1994		CHKD: B.HILL		DATE: 20.10.1994		
DRAWN: P.A.V.		D-DT-0332		SET	SHEET	REVISION
DATE: 20.10.1994				2	2	8

1 2 3 4 5 6 7 8

A
B
C
D
E
F



- NOTE :
1. COMPACTION :- MOISTENED SOIL TO BE BACKFILLED IN 150mm LAYERS, EACH LAYER COMPACTED WITH HAND COMPACTOR WEIGHING NOT LESS THAN 12kg OR MECHANICAL COMPACTOR, UNTIL GROUND IS HARD, THEN PLACE NEXT LAYER.
 2. FOR SINGLE AND MULTIPLE CONDUCTORS ATTACHED TO THE POLE WITH DEVIATION ANGLES, THE MAX. HORIZONTAL LOAD kN IS TO BE WORKED OUT AND NOT TO EXCEED THE ALLOWABLE HORIZONTAL LOAD FOR THE STAY USED. DERIVED FROM THE FACTORED STAY CAPACITY.
 3. STAY SIZE TO MATCH CONDUCTOR AND NOT VOLTAGE.
 4. STAYS GREATER THAN 45 DEGREES TO BE DESIGNED BY A PROFESSIONAL ENGINEER.
 5. WHERE THERE IS MORE THAN ONE STAY IN A BISECTOR OR INLINE, THE STAYS ARE TO BE SPLAYED APART BY A MINIMUM OF 1.5m

PLANTING DEPTH TABLE					
ROD DIA. mm	ROD LENGTH mm	MAX. UTS OF STAY ROD - kN	'H' MIN. mm	'H' MAX. mm	MAX. WORKING LOAD OF STAY ROD - kN
12	1500	33	1050	1300	13.2
20	2000	97	1450	1750	38
24	2400	133	1950	2150	54

* SOME OPEN WIRE LV AND DOUBLE ABC REQUIRES THE USE OF MV (20mm) STAYS.

13	MAX UTS OF STAY ROD-kN CHANGED FOR 20 + 24 ROD DIA AND NOTE 5 ADDED	P.A.T.	B.HILL	B.HILL	15.10.2012	
12	STAY PLATE MOVED UP AGAINST VIRGIN SOIL AS PER REV.10	P.A.T.	S.MASHABA	B.HILL	08.09.2011	
11	MECHANICAL EXCAVATOR HOLES SHOWN	P.A.T.	S.MASHABA	B.HILL	11.04.2010	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

Eskom

AUTH: S.A. CILLIERS

DATE: 10/01/1994

CHKD: NJVR

DATE: 01/03/1993

DRAWN: ETR + OTS ZW

DATE: 01/09/1992

MV & LV STAY ROD INSTALLATION
NON-AUGURED HOLES

D-DT-0350

SET	SHEET	REVISION
3	1	13

1 2 3 4 5 6 7 8 A3L

A

B

C

D

E

F

A

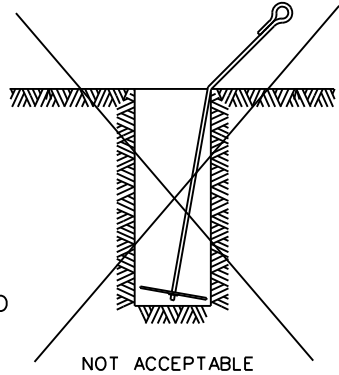
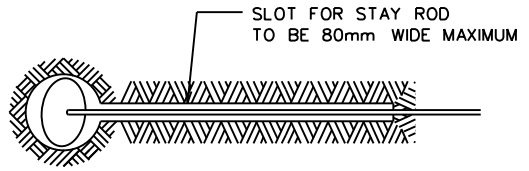
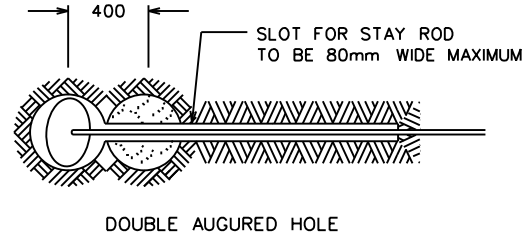
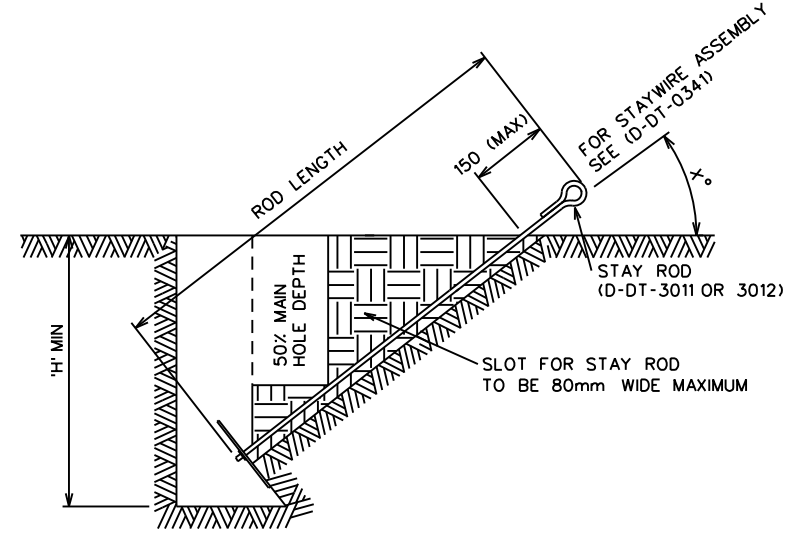
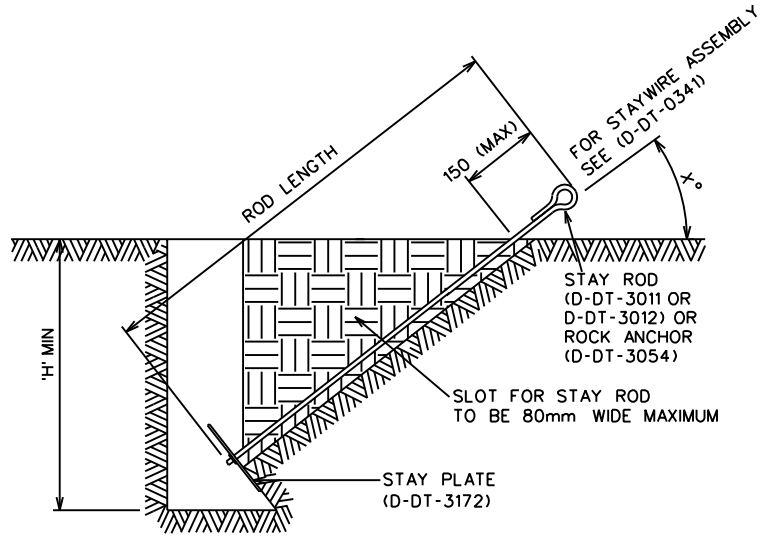
B

C

D

E

F



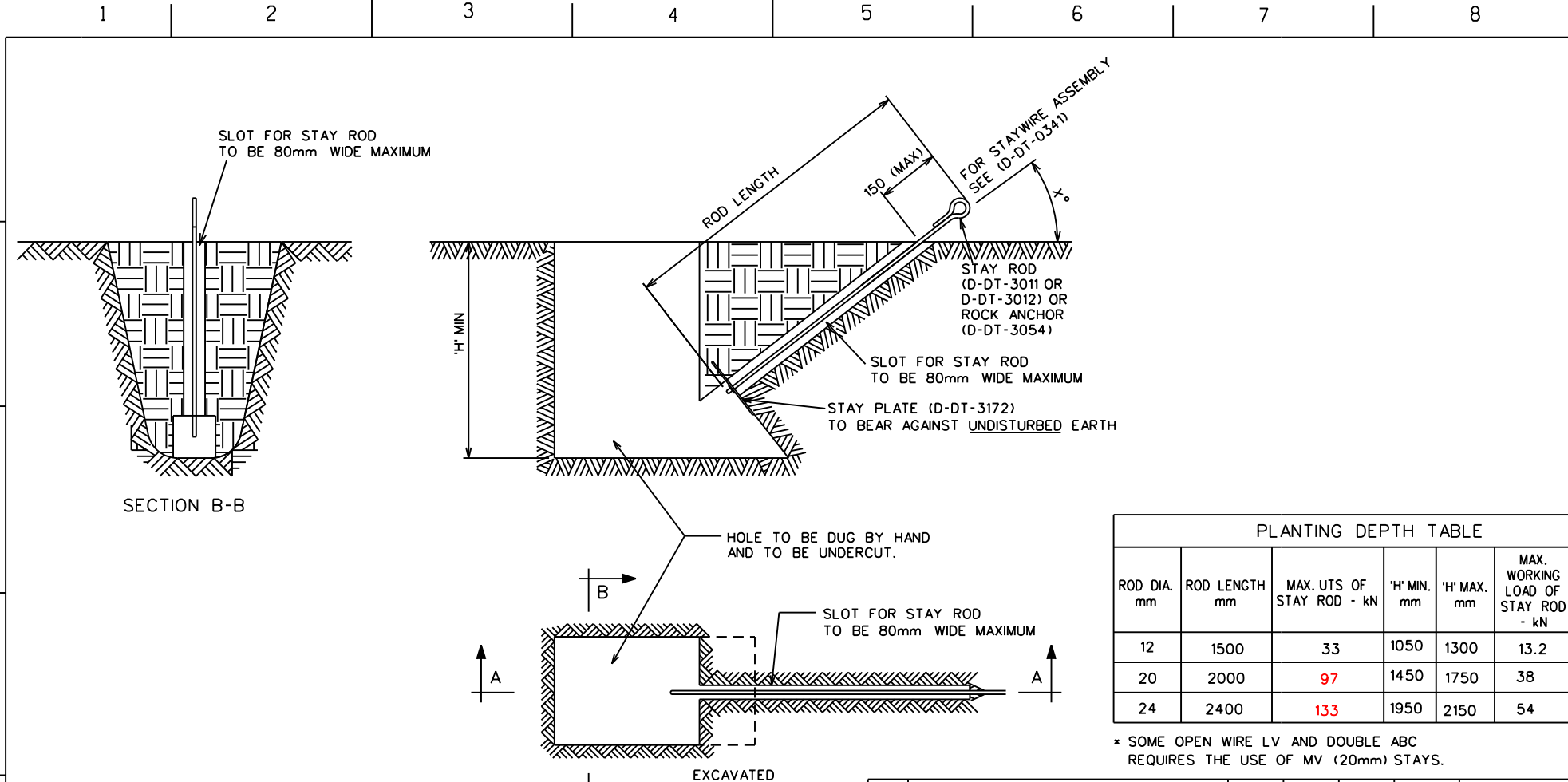
NOTE :

1. COMPACTION :- MOISTENED SOIL TO BE BACKFILLED IN 150mm LAYERS, EACH LAYER COMPACTED WITH HAND COMPACTOR WEIGHING NOT LESS THAN 12kg OR MECHANICAL COMPACTOR, UNTIL GROUND IS HARD, THEN PLACE NEXT LAYER.
2. FOR SINGLE AND MULTIPLE CONDUCTORS ATTACHED TO THE POLE WITH DEVIATION ANGLES, THE MAX. HORIZONTAL LOAD kN IS TO BE WORKED OUT AND NOT TO EXCEED THE ALLOWABLE HORIZONTAL LOAD. DERIVED FROM THE FACTORED STAY CAPACITY.
3. STAY SIZE TO MATCH CONDUCTOR AND NOT VOLTAGE.
4. STAYS GREATER THAN 45 DEGREES TO BE DESIGNED BY A PROFESSIONAL ENGINEER.
5. WHERE THERE IS MORE THAN ONE STAY IN A BISECTOR OR INLINE, THE STAYS ARE TO BE SPLOYED APART BY A MINIMUM OF 1.5m

13	MAX UTS OF STAY ROD-KN CHANGED FOR 20 + 24 ROD DIA AND NOTE 5 ADDED	P.A.T.	B.HILL	B.HILL	15.10.2012	
12	STAY PLATE MOVED UP AGAINST VIRGIN SOIL AS PER REV.10	P.A.T.	S.MASHABA	B.HILL	08.09.2011	
11	MECHANICAL EXCAVATOR HOLES SHOWN	P.A.T.	S.MASHABA	B.HILL	11.04.2010	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

AUTH:	S.A. CILLIERS
DATE:	10/01/1994
CHKD:	NJVR
DATE:	01/03/1993
DRAWN:	ETR + OTS ZW
DATE:	01/09/1992

MV & LV STAY ROD INSTALLATION AUGURED HOLES				
D-DT-0350		SET	SHEET	REVISION
		3	2	13



ROD DIA. mm	ROD LENGTH mm	MAX. UTS OF STAY ROD - kN	'H' MIN. mm	'H' MAX. mm	MAX. WORKING LOAD OF STAY ROD - kN
12	1500	33	1050	1300	13.2
20	2000	97	1450	1750	38
24	2400	133	1950	2150	54

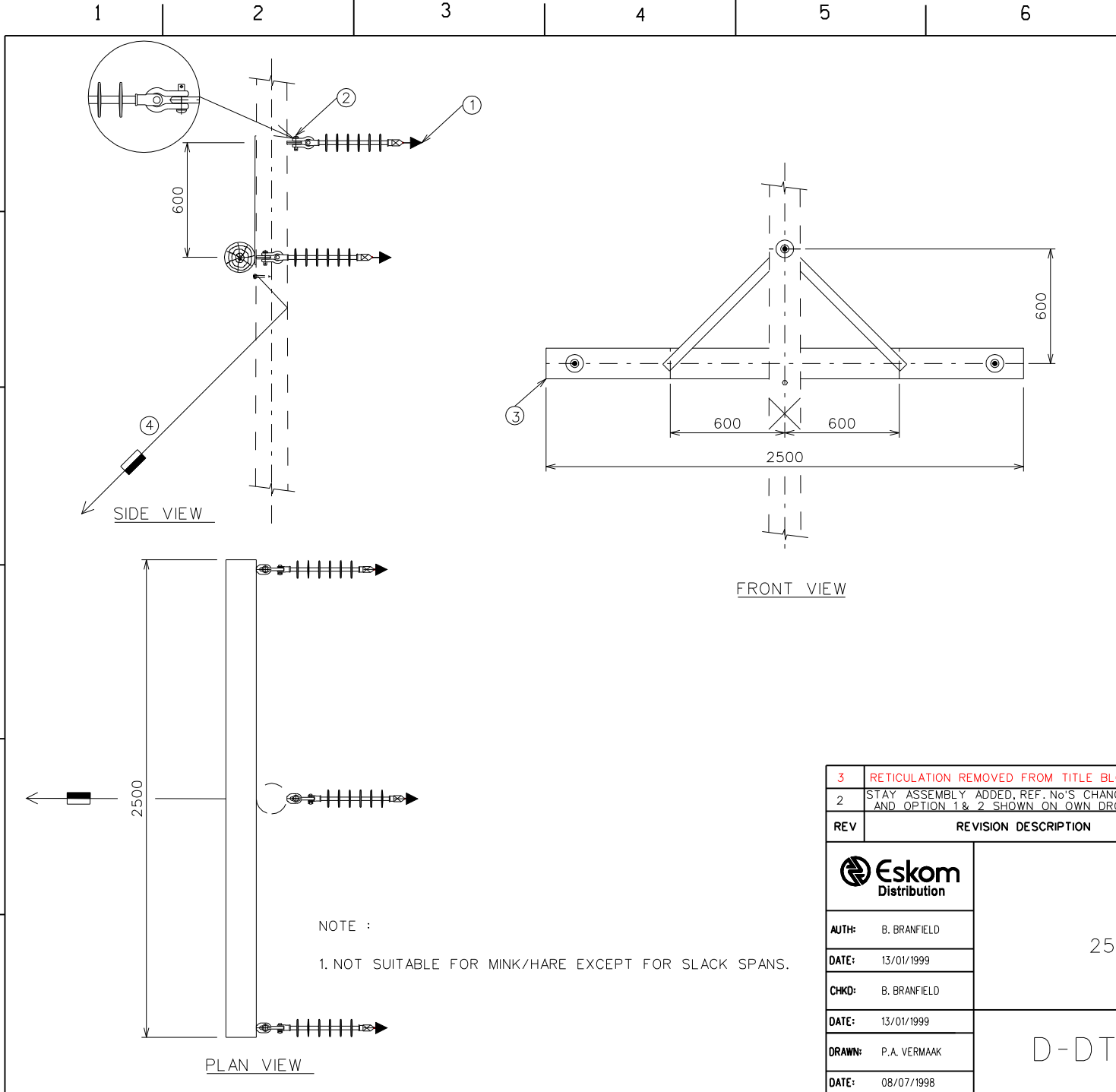
* SOME OPEN WIRE LV AND DOUBLE ABC REQUIRES THE USE OF MV (20mm) STAYS.

13	MAX UTS OF STAY ROD-kN CHANGED FOR 20 + 24 ROD DIA AND NOTE 5 ADDED	P.A.T.	B.HILL	B.HILL	15.10.2012	
12	STAY PLATE MOVED UP AGAINST VIRGIN SOIL AS PER REV.10	P.A.T.	S.MASHABA	B.HILL	08.09.2011	
11	MECHANICAL EXCAVATOR HOLES SHOWN	P.A.T.	S.MASHABA	B.HILL	11.04.2010	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

		MV & LV STAY ROD INSTALLATION MECHANICAL EXCAVATOR HOLES							
						AUTH: S.A. CILLIERS			
						DATE: 10/01/1994			
						CHKD: NJVR			
DATE: 01/03/1993				SET	SHEET	REVISION			
DRAWN: ETR + OTS ZW		D-DT-0350		3	3	13			
DATE: 01/09/1992									

NOTE :

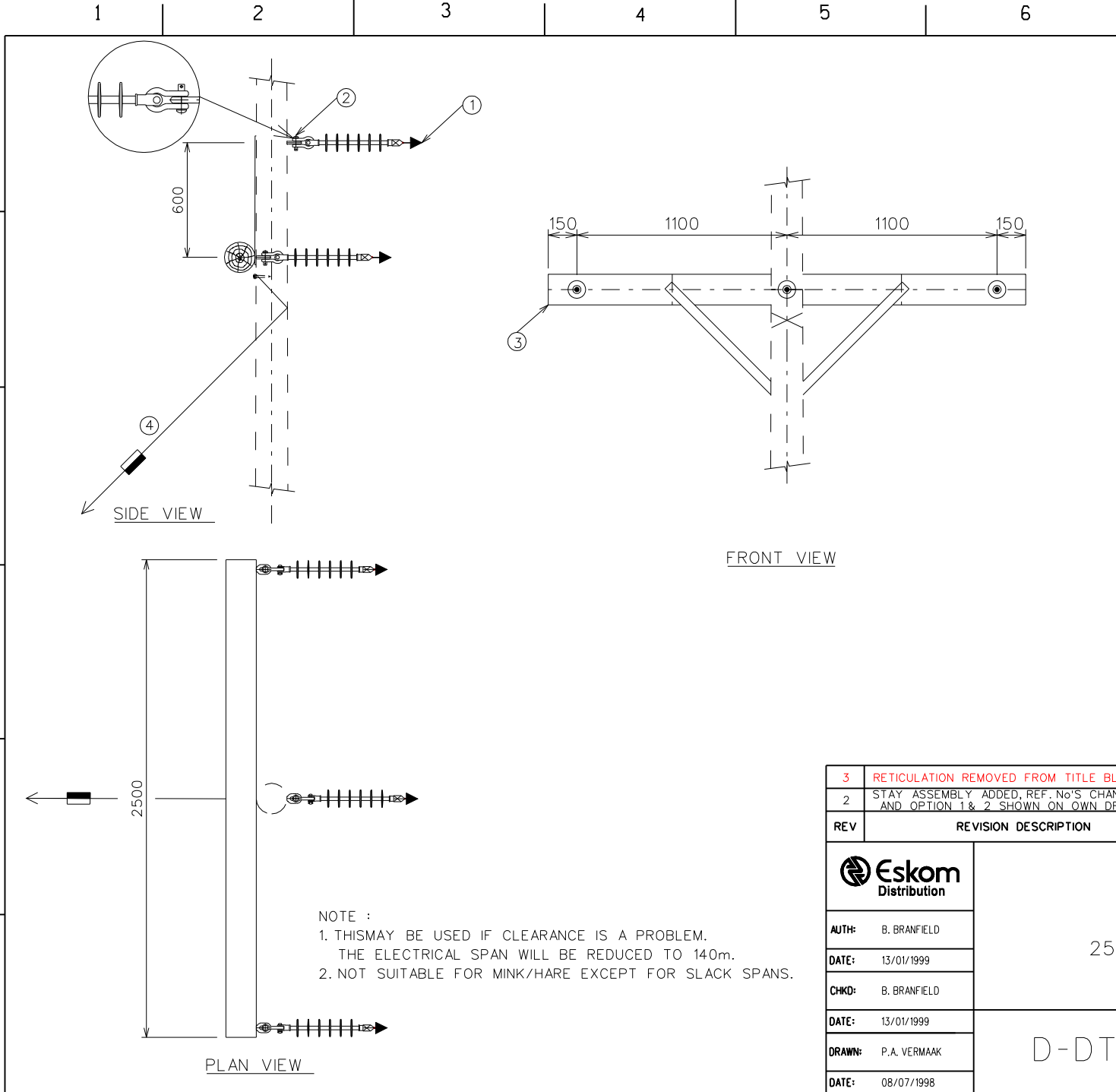
1. COMPACTION :- MOISTENED SOIL TO BE BACKFILLED IN 150mm LAYERS, EACH LAYER COMPACTED WITH HAND COMPACTOR WEIGHING NOT LESS THAN 12kg MECHANICAL COMPACTOR, UNTIL GROUND IS HARD, OR THEN PLACE NEXT LAYER.
2. FOR SINGLE AND MULTIPLE CONDUCTORS ATTACHED TO THE POLE WITH DEVIATION ANGLES, THE MAX. HORIZONTAL LOAD kN IS TO BE WORKED OUT AND NOT TO EXCEED THE ALLOWABLE HORIZONTAL LOAD.
DERIVED FROM THE FACTORED STAY CAPACITY
3. STAY SIZE TO MATCH CONDUCTOR AND NOT VOLTAGE.
4. STAYS GREATER THAN 45 DEGREES TO BE DESIGNED BY A PROFESSIONAL ENGINEER.
5. WHERE THERE IS MORE THAN ONE STAY IN A BISECTOR OR INLINE, THE STAYS ARE TO BE SPLAYED APART BY A MINIMUM OF 1.5m



REFERENCE DRAWINGS		
ITEM	DESCRIPTION	DWG NO
CONDUCTOR / INSULATOR ATTACHMENTS		
1	STRAINS -HELICAL DEAD-END -PISTOL GRIPS	D-DT-0250 D-DT-0251
INSULATOR / STRUCTURE ATTACHMENTS		
2	TERMINAL -EYEBOLT	D-DT-0375
X-ARM STRUCTURE ATTACHMENTS		
3	STRAINS -2500 WOOD CROSSARM	D-DT-0316
BONDING AND EARTHING		
INSULATION CO-ORDINATE		D-DT-0310
STAYS		
4	STAY ATTACHMENTS STAY ASSEMBLY	D-DT-0312 D-DT-0341
PHASING		
PHASE CONFIGURATION		D-DT-0311

3	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	11.10.09	
2	STAY ASSEMBLY ADDED, REF. No'S CHANGED AND OPTION 1 & 2 SHOWN ON OWN DRGS	PBM	P.A.V.	B. HILL	18.10.05	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
		ESKOM MV THREE PHASE TAKE - OFF 2500 WOOD CROSSARM (OPTION 1)				
AUTH: B. BRANFIELD		SET		SHEET		REVISION
DATE: 13/01/1999		2		1		3
CHKD: B. BRANFIELD		D-DT-1804				
DATE: 13/01/1999						
DRAWN: P.A. VERMAAK						
DATE: 08/07/1998						

NOTE :
1. NOT SUITABLE FOR MINK/HARE EXCEPT FOR SLACK SPANS.



NOTE :
 1. THIS MAY BE USED IF CLEARANCE IS A PROBLEM.
 THE ELECTRICAL SPAN WILL BE REDUCED TO 140m.
 2. NOT SUITABLE FOR MINK/HARE EXCEPT FOR SLACK SPANS.

REFERENCE DRAWINGS		
ITEM	DESCRIPTION	DWG NO
CONDUCTOR / INSULATOR ATTACHMENTS		
1	STRAINS -HELICAL DEAD-END -PISTOL GRIPS	D-DT-0250 D-DT-0251
INSULATOR / STRUCTURE ATTACHMENTS		
2	TERMINAL -EYEBOLT	D-DT-0375
X-ARM STRUCTURE ATTACHMENTS		
3	STRAINS -2500 WOOD CROSSARM	D-DT-0316
BONDING AND EARTHING		
INSULATION CO-ORDINATE		D-DT-0310
STAYS		
4	STAY ATTACHMENTS STAY ASSEMBLY	D-DT-0312 D-DT-0341
PHASING		
PHASE CONFIGURATION		D-DT-0311

3	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	11.10.09	
2	STAY ASSEMBLY ADDED, REF. No'S CHANGED AND OPTION 1 & 2 SHOWN ON OWN DRGS	PBM	P.A.V.	B. HILL	18.10.05	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
		ESKOM MV THREE PHASE TAKE - OFF 2500 WOOD CROSSARM (OPTION 2)				
AUTH: B. BRANFIELD		SET		SHEET		REVISION
DATE: 13/01/1999		2		2		3
CHKD: B. BRANFIELD		D-DT-1804				
DATE: 13/01/1999						
DRAWN: P.A. VERMAAK						
DATE: 08/07/1998						

A

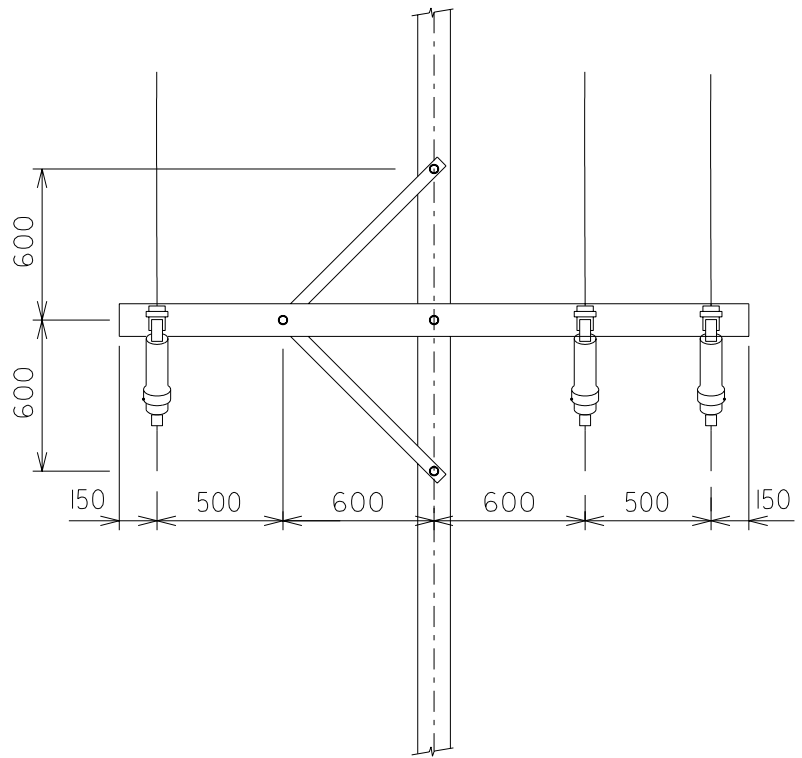
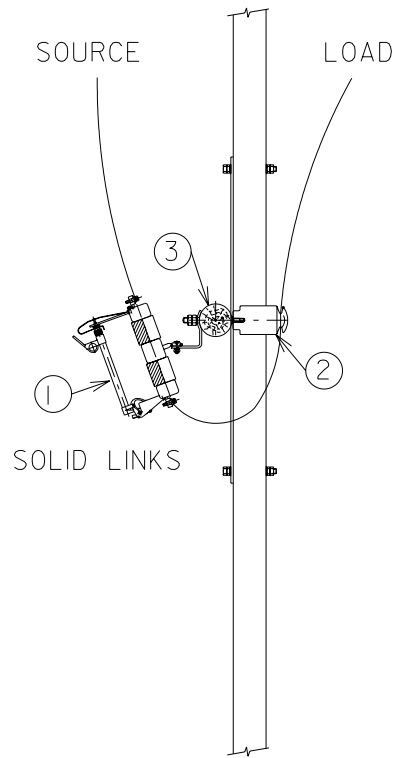
A

B

B

C

C



NOTE :

- 1. MAXIMUM UNSUPPORTED JUMPER LENGTH 3000.
- 2. COVERED JUMPERS TO BE USED.

D

D

REF	DESCRIPTION	DRAWING NO.
1	FUSE-CUT/OUT ASSEMBLY OR DISCONNECTOR ASSEMBLY	(D-DT-0290 OR D-DT-0293)
2	POST INSULATOR ASSEMBLY	(D-DT-0391)
3	2500 WOOD CROSSARM ASSEMBLY	(D-DT-0316)

E

E

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
1	DISCONNECTOR ASSEMBLY ADDED TO SCHEDULE	P.A.V.	R.THERON	R.THERON	09.02.04	

F

F



AUTH: B.BRANFIELD

DATE: 13.01.1999

CHKD: B.BRANFIELD

DATE: 13.01.1999

DRAWN: P.A.VERMAAK

DATE: 08.10.1998

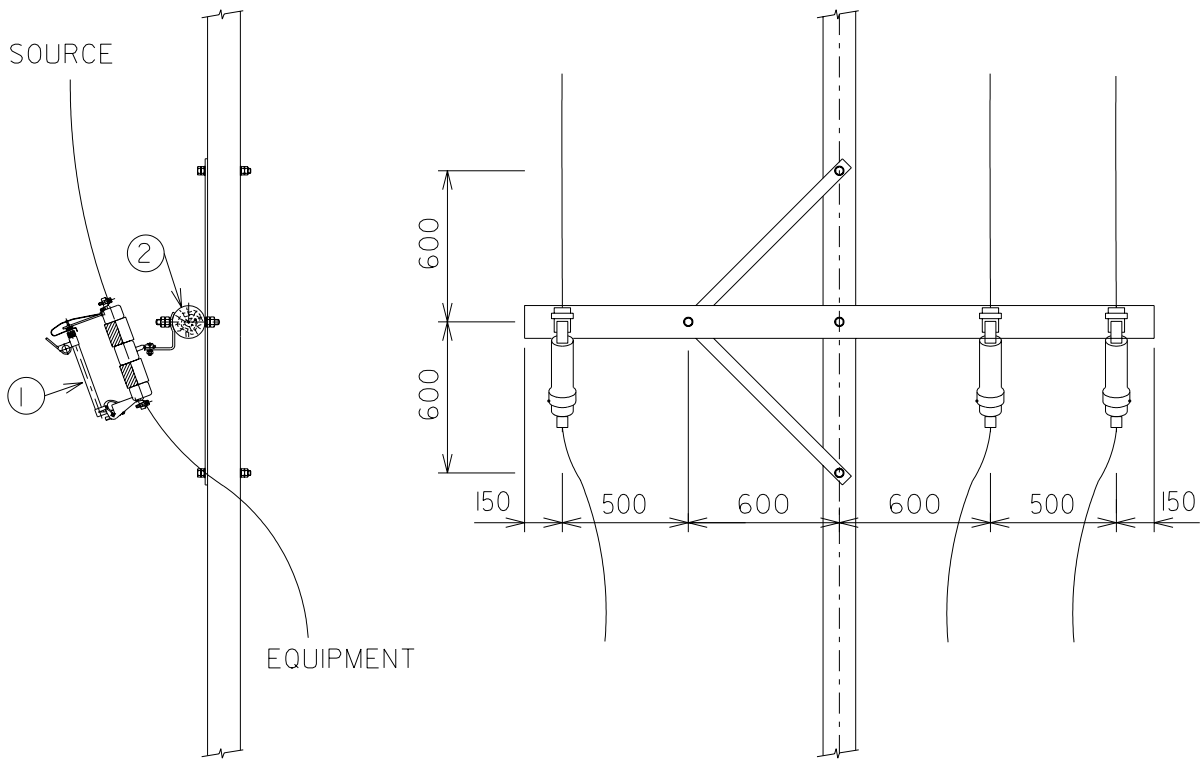
SECTION LINKS
CUT/OUTS OR DISCONNECTORS
2500 WOOD CROSSARM/SINGLE POLE

D-DT-1848

SET	SHEET	REVISION

A

A



B

B

C

C

NOTE :

1. MAXIMUM UNSUPPORTED JUMPER LENGTH 3000.

2. COVERED JUMPERS TO BE USED.

D

D

REF	DESCRIPTION	DRAWING NO.
1	FUSE-CUT/OUT ASSEMBLY OR DISCONNECTOR ASSEMBLY	(D-DT-0290 OR D-DT-0293)
2	2500 WOOD CROSSARM ASSEMBLY	(D-DT-0316)

1	DISCONNECTOR ASSEMBLY ADDED TO SCHEDULE	P.A.V.	R.THERON	R.THERON	09.02.04	
---	---	--------	----------	----------	----------	--

E

E

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
-----	----------------------	----	------	------	------	-------------



AUTH: B.BRANFIELD

DATE: 13.01.1999

CHKD: B.BRANFIELD

DATE: 13.01.1999

DRAWN: P.A.VERMAAK

DATE: 08.10.1998

EQUIPMENT LINKS
CUT/OUTS OR DISCONNECTORS
2500 WOOD CROSSARM/SINGLE POLE

D-DT-1849

SET

SHEET

REVISION

|

|

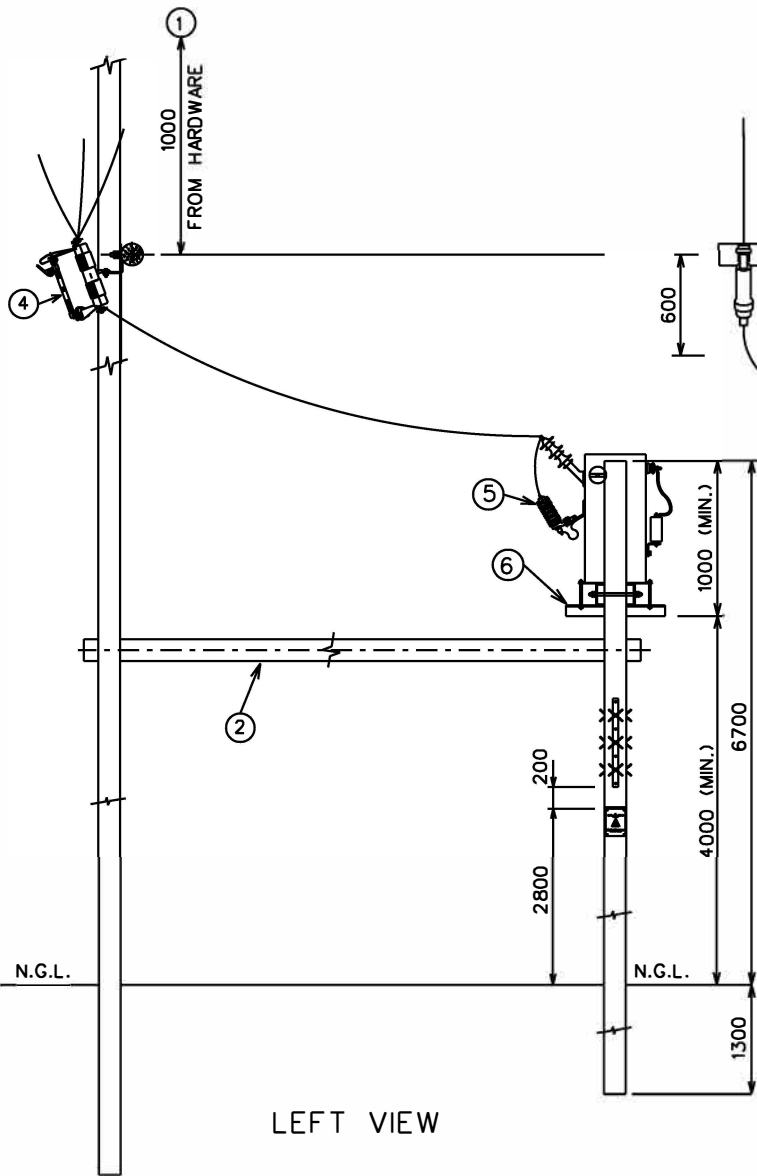
|

F

F

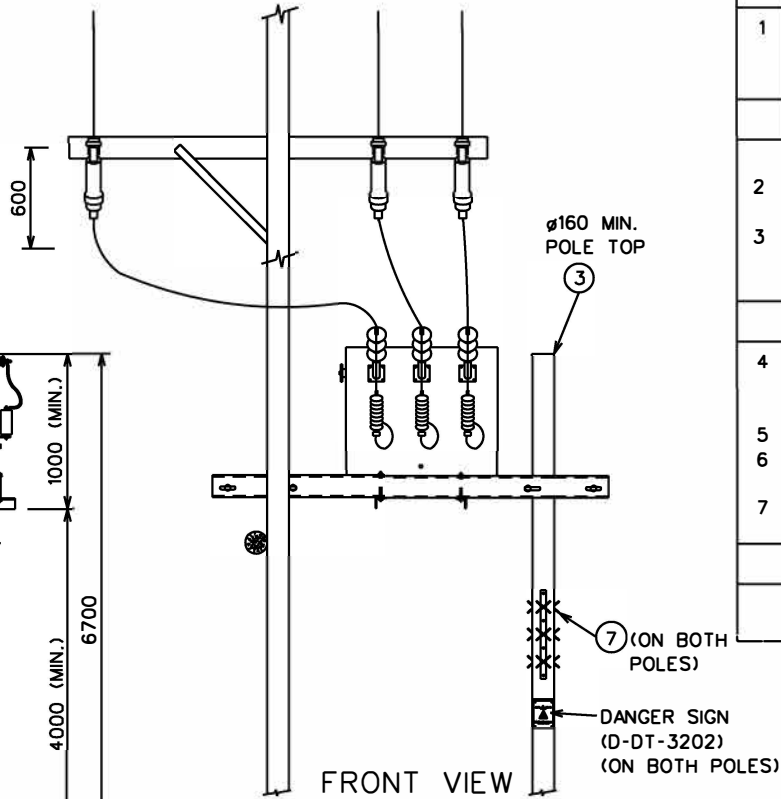
1 2 3 4 5 6 7 8

A
B
C
D
E
F



LEFT VIEW

NOTES :
 1. ACCORDING TO REPORT 240-100 991892
 (COPPER CLAD STEEL CONDUCTOR FOR EARTHING)
 IN HIGH THEFT AREAS, COPPER TO BE REPLACED
 WITH COPPER CLAD STEEL:
 SAP NUMBER 0175491 FROM D-DT-3137.



FRONT VIEW

REFERENCE DRAWINGS

ITEM	DESCRIPTION	DWG NO
STRUCTURES		
1	H- POLES	D-DT-1763 TO D-DT-1769
X-ARM STRUCTURES		
2	STRAIN -2.5m CROSSARM	D-DT-0316
	-3.5m CROSSARM	D-DT-0317
3	-4.5m CROSSARM	D-DT-0065
	-8.0m CROSSARM	D-DT-0055
	-9.0m CROSSARM	D-DT-0055
EQUIPMENT ATTACHMENTS		
4	-EQUIPMENT LINKS	D-DT-1849 D-DT-1850 D-DT-1869
5	-SURGE ARRESTERS	D-DT-0261
6	-EQUIPMENT MOUNTING PLATFORM	D-DT-0271
7	-ANTICLIMBING DEVICE	D-DT-0399
EQUIPMENT EARTHING		
	-TRANSFORMER PLATFORM MOUNTED - EARTHING DETAIL	D-DT-1861 (Sheet 2)

6	NOTE 1 ADDED RE COPPER CLAD	P.A.T.	B. HILL	B. HILL	22.07.2016	
5	TRANSFORMERS FOR GIRAFFE ENVIRONMENTS ADDED	FORWARDED P.A.T.	B.HILL for	S.v AARDE	20.08.2015	
4	RETICULATION REMOVED FROM TITLE BLOCK	N.M.	P.A.T.	P.A.T.	31.10.2009	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: R.THERON
 DATE: 20/01/2003
 CHKD: G.STANFORD
 DATE: 20/01/2003
 DRAWN: P.VERMAAK
 DATE: 15/08/2000

MV TRANSFORMERS 200kVA
 2 POLE PLATFORM MOUNTED (OUT OF LINE)
 GENERAL ARRANGEMENT

D-DT-1865

SET	SHEET	REVISION
3	1	6

1 2 3 4 5 6 7 8 A3L

ANNEXURE 4: WAYLEAVES



ENOCH MGIJIMA
LOCAL MUNICIPALITY

DIRECTORATE: TECHNICAL SERVICES
Physical Address: 20 Brewery Road, Komani 5320

Postal Address: Private Bag X 7111, Komani 5320

• ENOCH MGIJIMA LOCAL MUNICIPALITY
OFFICE OF MUNICIPAL MANAGER

2026 -01- 29

PRIVATE BAG X7111

MEMORANDUM	
FROM: TECHNICAL SERVICES	TO: MUNICIPAL MANAGER
DATE: 28 JANUARY 2026	

OUR REF: M. MATOLA

PURPOSE

To request a new power point supply at Martije Venter Hospital in Tarkastad.

BACKGROUND

This is to request for the authorisation of the wayleave for Eskom on their area of operation which is in our Location the Tarkastad area. They want to build their line as per their standard which is acceptable to us as municipality.

REQUESTING OFFICIAL:



RECOMMENDED/ NOT RECOMMENDED

Mr. M Matola

Electrical Manager

Date: 28/01/2026

APPROVED/NOT APPROVED

Mr. T Malingatshoni

Acting Director Technical Services

Date: 28/01/26



APPROVED/NOT APPROVED

MS. A Ntengenyane

Municipal Manager

Date: 30/01/26



AREA: Tarkastad	PROJECT NUMBER: ECDOH-MVH-200KVA
FEEDER:	ITEM OF:
SUPPLY TO: Martjie Venter Hospital	
ESKOM REPRESENTATIVE: Gugulethu Zola	TEL: 071 901 3859
*DISTRIBUTION/*TRANSMISSION	FAX:

**WAYLEAVE CONTRACT
POWERLINE AND/OR CABLE AND ASSOCIATED INFRASTRUCTURE**

1. GENERAL

1.1 Identification of parties:

1.1.1 Eskom means Eskom Holdings SOC Ltd, a public company with registration number 2002/015527/30 with its head office at Megawatt Park, 2 Maxwell Drive, Sunninghill, Sandton

1.1.2 Owner means a company / close corporation / trust / partnership / natural person / Government department / tribal authority

I/We, the undersigned (full names)

.....
.....

(* If Company/CC/Trust, complete capacity of authorised persons)

(Identity number: ~~married in/out of community of property with/without accrual/marital power~~)

Address:
..... Postal Code

Tel No.:

being the REGISTERED OWNER/S
and

.....
.....

(~~Identity number: married in/out of community of property with/without accrual/marital power~~)

~~Address:
..... Postal Code~~

~~Tel No.:~~

~~being the *PURCHASER/LESSEE/USUFRUCTUARY/HEIR/OCCUPANT~~

(hereinafter referred to jointly or individually as the "Owner) of the following property/properties:

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

situate in the Administrative District of
..... held by virtue of Title Deed/s
number/s..... extent.....

2.3.9 At Eskom's election, have this wayleave registered as a servitude against the title deed of the Property.

2.4 The Rights will apply to all electricity infrastructure on the Property and the area which such infrastructure covers will be deemed to be included in the Wayleave Area and/or Restricted Area. It is agreed that the Owner herewith grants permission for all electricity infrastructure on the Property to remain on the Property.

2.5 Any expenses to be incurred, which are necessitated by a change to or removal of the Goods in the Wayleave Area required by the Owner, are for the Owner's account and must be paid for by the Owner in advance. Eskom will effect such changes or removals after receipt of such payment, if such changes or removal are technically possible.

2.6 The Contractor may exercise any of the Rights.

2.7 Eskom may:

2.7.1 let any portion of the Goods to any third party on such conditions as Eskom may deem fit;

2.7.2 cede all or any of the Rights granted in terms of this Wayleave to any third party.

3. THE OBLIGATIONS

3.1 Eskom must:

3.1.1 ensure that any of Eskom's gates that it had used is closed after use;

3.1.2 pay reasonable compensation for intentional damage or damage caused through a negligent act or omission, caused by Eskom, its employees or agents in pursuit of the Rights, save where Eskom is acting in accordance with sub-clause 2.3.7 of this document; and

3.1.3 where a Contractor exercises the Rights, ensure that the Contractor complies with the obligations contained in this sub-clause 3.1.1.

3.2 The Owner, or anyone with rights on the property, must ensure that no:

3.2.1 building or structure is erected or installed above or below the surface of the ground within the Wayleave Area and no tree or bush is planted within the Wayleave Area or within _____9m_____ metres from any structure-supporting mechanism (the "Restricted Area");

Signed at KOMANI on this 30 day of JANUARY 2026

AS WITNESSES:

1. 

Antongefuene
REGISTERED OWNER(S)/PURCHASER/
LESSEE/USUFRUCTUARY/HEIR/
OCCUPANT*/SPOUSE IF MARRIED IN
COMMUNITY OF PROPERTY

2. 

Signed at on this Day of 20.....

AS WITNESSES:

1.

.....
REGISTERED OWNER(S)/PURCHASER/
LESSEE/USUFRUCTUARY/HEIR/
OCCUPANT*/SPOUSE IF MARRIED IN
COMMUNITY OF PROPERTY

2.

Signed at Eskom SOP, East London..... on this ..23... day of January..... 2026.....

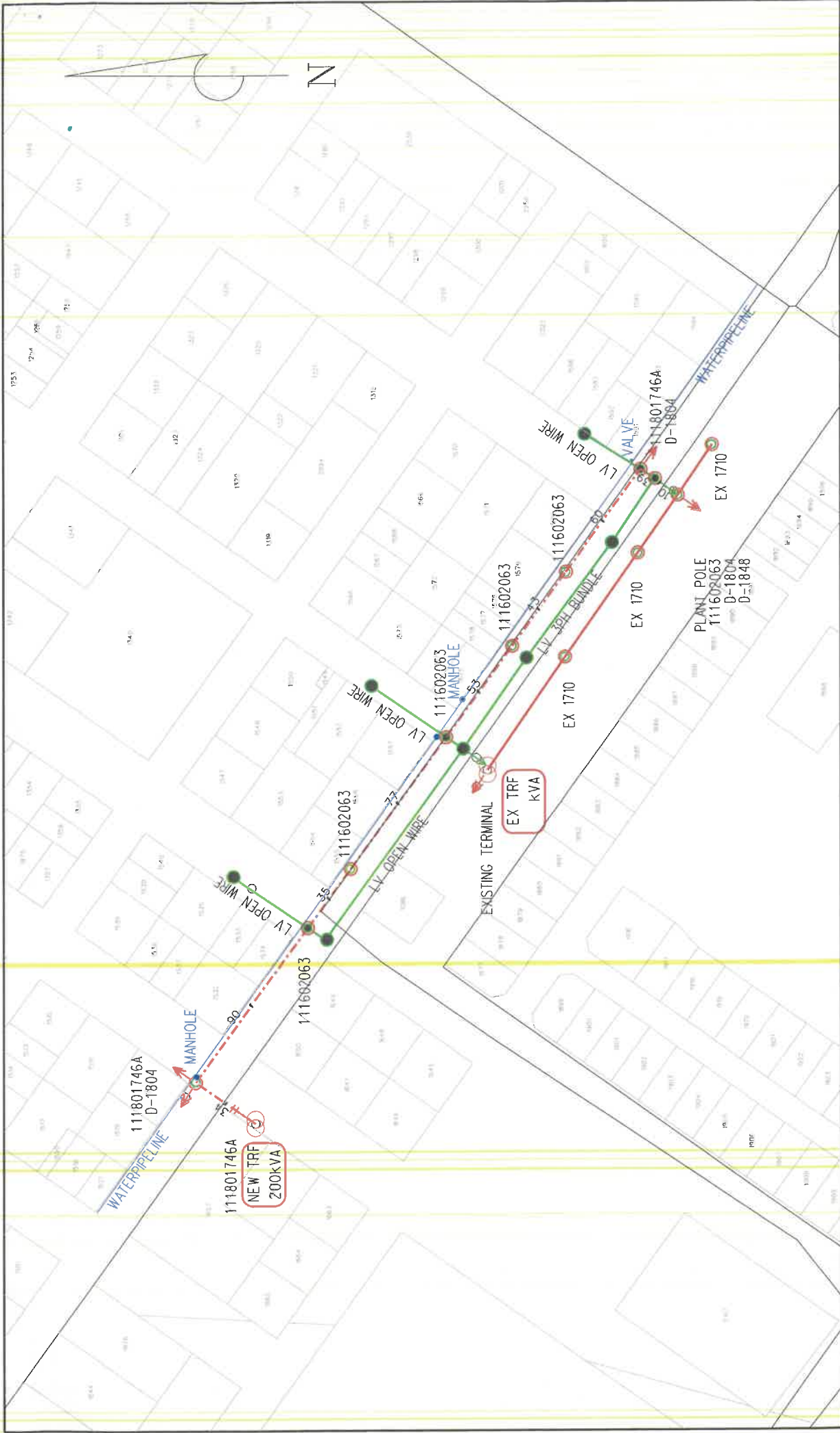
AS WITNESSES:

1.

.....
for and on behalf of
ESKOM HOLDINGS LIMITED

2.

(* Delete whichever is not applicable)



SIMELELA PROJECTS AND SURVEYS TEL. 071 901 3859 EMAIL. guguzesimelela.co.za	FEEDER: Tsohwana/Tarkastad Munic 122kV Overhead Line	CUSTOMER: ESKOM
	PROJECT NO: EDOH-MWH- 200KV	PROPERTY: VARIOUS
	CONDUCTOR: FOX	COMPILATION: 2529 CC
	LENGTH OF LINE: 0.413 km.	SCALE: 1:2 500
	SURVEYOR: GUGULETHU ZOLA DRAUGHTSPERSON: TREG DRAUGHTING	PAGE: 1 OF 5

ANNEXURE 5: Calculation of Penalties

a) CALCULATION OF PENALTIES

CALCULATION OF PENALTY PER DAY (EXCLUDING VAT)

CONTRACT PERIOD	RATE PER R100 OF ESTIMATE
1 month	27.5 cents
1.5 months	22 cents
2 months	16.5 cents
2.5 months	13.5 cents
3 months	11 cents
3.5 months	9.5 cents
4 months	8.5 cents
4.5 months	7.5 cents
5 months	6.25 cents
6 months	5.75 cents
7 months	4.75 cents
8 months	4 cents
9 months	3.75 cents
10 months	3.5 cents
11 months	3 cents
12 months	2.75 cents
14 months	2.5 cents
15 months	2.25 cents
16 months	2 cents
18 months	1.75 cents
20 months	1.5 cents
21 months	1.5 cents
24 months	1.25 cents
30 months	1 cent
36 months	1 cent
42 months	1 cent

b) PENALTY PER DAY ROUNDED OFF AS FOLLOWS:

R0	-	R500	nearest	R5
R501	-	R1 000	nearest	R10
R1 001	-	R5 000	nearest	R50
R5 001	-	and above	nearest	R100

EXAMPLE

$$\begin{aligned}
 \text{Estimated contract value} &= 51\,976\,884 \text{ (excluding VAT)} \\
 \text{Contract period} &= 15 \text{ months} \\
 &= 51\,976\,884 \times \frac{0.0225}{100} \\
 &= R11\,694.80/\text{day}
 \end{aligned}$$

Therefore rounded off to the nearest R100.00 = R11 700.00/day

c) PENALTIES ON CONTRACTS IN PHASES

Penalties must be calculated proportionally on the estimated value of each phase.