

**RFQ-2026-0718**

**Soil Investigation and Geotechnical Assessment for BPC Secondary Substations**

**BILL OF QUANTITIES**

1. The bid price for the works shall represent the full cost to BPC for the performance and delivery of the works by the contractor.
2. The bid shall be firmed in **BND** currency as stated in this Bill of Quantities.
3. The quoted rates shall include all labour, supervision, mobilisation, demobilisation, transportation, tool, equipment and any other costs necessary to complete the works.
4. Bidders are strongly advised to visit the site to fully understand the scope of work before submitting their bid. Claims based on incorrect or insufficient information will not be considered. For site inspection, please contact **Lisa Shukri at +673-7190014** or **Robinson Goh at +673-8759118**
5. The contractor shall submit a report to BPC upon completion of the works.
6. The contractor must comply with the site safety and security requirement inclusive of the following:-
  - Attendance at Safety Induction Course by all Contractor personnel working on site.
  - Submission of Risk Assessment and Method Statement (RAMS) for the works for approval prior to commencement of the works
  - Provision of Personal Protective Equipment, portable toilets, rest areas, proper tools and certified equipment at the site
  - Provision of a competent HSE Officer at the site throughout the duration of the works.
  - Full compliance with relevant HSE rules and regulations implemented by BPC and relevant Government Authorities (i.e., Ministry of Development Health Safety & Environment Manual, Workplace Safety and Health Order 2009, and all its subsequent regulations, etc.)

| <i>Item</i> | <i>Description</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <i>Unit</i> | <i>Qty.</i> | <i>Unit Rate<br/>BND</i> | <i>Amount<br/>BND</i> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|--------------------------|-----------------------|
|             | <b>Provision of skilled manpower, transportation, certified equipment, tools and all necessary resources to carry out the Soil Investigation and Geotechnical Assessment at the following BPC Secondary Substations:</b> <ul style="list-style-type: none"> <li>• Stable Block Secondary Substation, Jerudong</li> <li>• New Quarter #1 Secondary Substation, Berakas Camp</li> <li>• New Quarter #2 Secondary Substation, Berakas Camp</li> <li>• RBPC 1 Secondary</li> </ul> A site location plan is attached in <b>Appendix A</b> for reference. |             |             |                          |                       |
| 1           | Manual excavation of trial pits to check for existing underground cables and other utility services as directed by the BPC Contract Owner, inclusive of associated reinstatement works.                                                                                                                                                                                                                                                                                                                                                             | pts         | 4           | B\$                      | B\$                   |

| <i>Item</i>  | <i>Description</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <i>Unit</i> | <i>Qty.</i> | <i>Unit Rate<br/>BND</i> | <i>Amount<br/>BND</i> |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|--------------------------|-----------------------|
| 2            | Engage a licenced geotechnical specialist to conduct soil investigation and geotechnical analysis to be used for the design of shallow foundation of substation equipment, i.e., 500kVA, 800kVA & 1000KVA transformer. This item includes: <ul style="list-style-type: none"> <li>Carry out one Static Cone Penetration Test (CPT) at each of the 4 secondary substations. Each CPT shall be performed from the existing ground level to a maximum depth of 9 metres or until refusal, in accordance with the prevailing Standard Method for Subsurface Sounding for Soils.</li> <li>Prepare and submit report of field data of in-situ test including interpretation and analysis and recommendation for most suitable type of foundation.</li> </ul> | pts         | 4           | B\$                      | B\$                   |
| 3            | Engage a qualified professional (C&S QP) to prepare and submit detailed civil and structural construction drawings for the proposed transformer foundations for the following transformer ratings and weights: <ul style="list-style-type: none"> <li>Proposed foundation for 500kVA Tx (3,500 kg)</li> <li>Proposed foundation for 800kVA Tx (4,435 kg)</li> <li>Proposed foundation for 1000kVA Tx (7,240 kg)</li> </ul>                                                                                                                                                                                                                                                                                                                             | lot         | 1           | B\$                      | B\$                   |
| <b>TOTAL</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |             |                          |                       |

Completion Time: ..... days from Purchase Order Date (inclusive of time for submission of RAMS for approval and attendance to Safety Induction Course)

\_\_\_\_\_  
(Signature and Company Stamp)

Date: \_\_\_\_\_

Name : \_\_\_\_\_

Position : \_\_\_\_\_

Company Name : \_\_\_\_\_

Address : \_\_\_\_\_

Telephone No. : \_\_\_\_\_

E-mail Address : \_\_\_\_\_

Appendix A



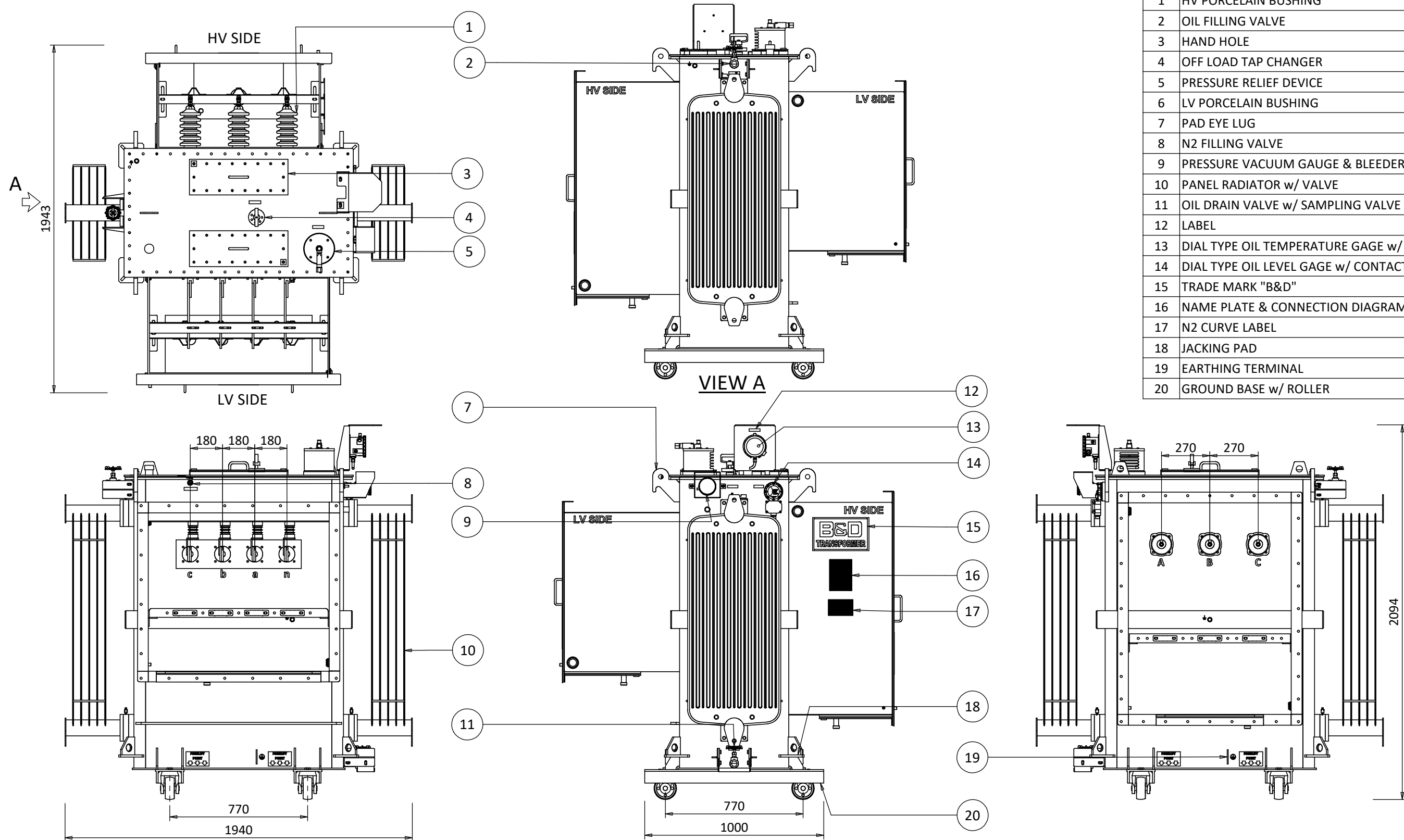
New Quarter #1 and #2 Secondary Substation



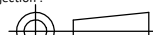
Stable Block Secondary Substation



RBPC 1 Secondary Substation

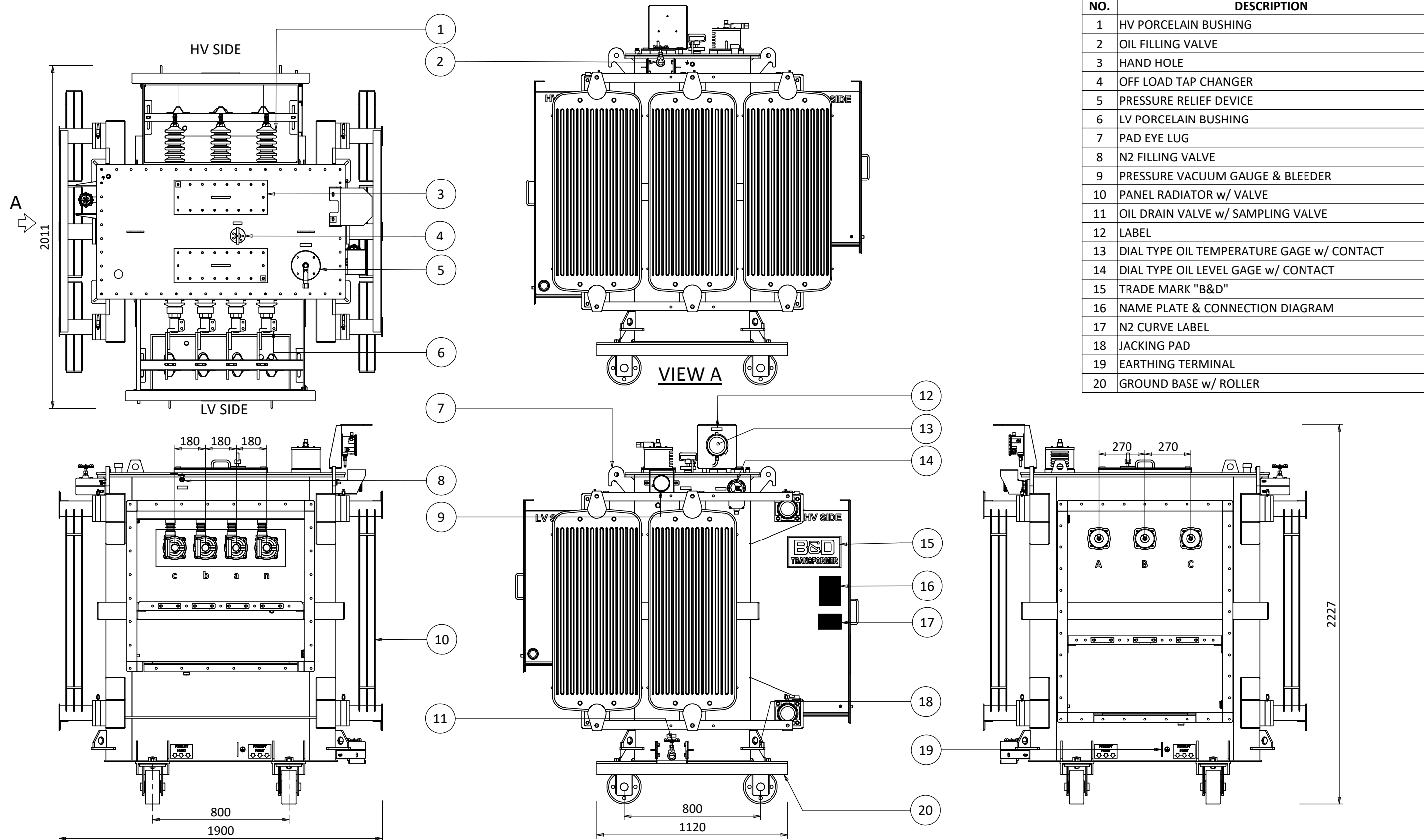


| NO. | DESCRIPTION                               |
|-----|-------------------------------------------|
| 1   | HV PORCELAIN BUSHING                      |
| 2   | OIL FILLING VALVE                         |
| 3   | HAND HOLE                                 |
| 4   | OFF LOAD TAP CHANGER                      |
| 5   | PRESSURE RELIEF DEVICE                    |
| 6   | LV PORCELAIN BUSHING                      |
| 7   | PAD EYE LUG                               |
| 8   | N2 FILLING VALVE                          |
| 9   | PRESSURE VACUUM GAUGE & BLEEDER           |
| 10  | PANEL RADIATOR w/ VALVE                   |
| 11  | OIL DRAIN VALVE w/ SAMPLING VALVE         |
| 12  | LABEL                                     |
| 13  | DIAL TYPE OIL TEMPERATURE GAGE w/ CONTACT |
| 14  | DIAL TYPE OIL LEVEL GAGE w/ CONTACT       |
| 15  | TRADE MARK "B&D"                          |
| 16  | NAME PLATE & CONNECTION DIAGRAM           |
| 17  | N2 CURVE LABEL                            |
| 18  | JACKING PAD                               |
| 19  | EARTHING TERMINAL                         |
| 20  | GROUND BASE w/ ROLLER                     |

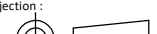
|                                                                                                                                                                                                                                                                                                                                                             |                                                |                    |   |                    |                                                                                                                   |                                   |                                   |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------|---|--------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|--|
| <div>- All Dimension in mm    - Tank Type : Hermatically Sealed (w/ N2 Chusion)    - Untanking Part Weight : 1810 Kg    - Total Weight :<br/>- Bolted Main Cover    - Cooling Type : ONAN    - Oil Weight : 800 Kg ( 890 Ltr)    3440 Kg<br/>- Dimension Tolerance 3%    - Finishing : RAL 7032    - Tank &amp; Fitting Weigh : 830 Kg</div>                |                                                |                    |   |                    | <div>Projection :<br/></div> |                                   | <div>Scale :<br/>Nts<br/>A3</div> |  |
| <div><div><div>B&amp;D</div><div>PT BAMBANG DJAJA<br/>ENGINEERING DEPT.<br/>MECHANICAL DESIGN</div></div><div><div></div><div>Management<br/>System<br/>ISO 9001:2008<br/>ISO 14001:2004<br/>OHSAS 18001:2007<br/><br/>www.tuv.com<br/>ID 9105063643</div></div></div> | 3                                              | -                  | - | -                  | Trafo Code :<br>TR-2KM9A5-AYAD                                                                                    |                                   |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                             | 2                                              | -                  | - | -                  |                                                                                                                   |                                   |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                             | 1                                              | Issue For Approval |   | 18.08.23           | STY                                                                                                               | Drawing Number :<br>GA-000-2KM9A5 |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                             | Rev.                                           | Modification       |   | Date               | Approved                                                                                                          |                                   |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                             | Drawing Title :<br>GENERAL ARRANGEMENT DRAWING |                    |   | Customer :<br>BPMC |                                                                                                                   | Drawing By :<br>03.05.23    ASH   |                                   |  |
| Distribution Transformer   500 kVA   HV 11000 V   LV 425 V   Dyn11   50 Hz                                                                                                                                                                                                                                                                                  |                                                |                    |   |                    | Checked By :<br>03.05.23    DHV                                                                                   |                                   |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                             |                                                |                    |   |                    | Approved By :<br>03.05.23    STY                                                                                  |                                   |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                             |                                                |                    |   |                    |                                                                                                                   |                                   |                                   |  |

AS BUILT DRAWING

The number and type of cooling facilities (radiators and fans) on the transformer might be changed after testing  
This drawing is not a final drawing and will be replaced with the final one as built drawing at the end of project



| NO. | DESCRIPTION                               |
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| 1   | HV PORCELAIN BUSHING                      |
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| 7   | PAD EYE LUG                               |
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|                                                                                                                                                                                                                                |  |  |  |                                                                                                                                 |  |                    |  |                                                                                                                                           |  |                 |  |                                     |  |  |  |                                                                                                               |  |                           |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------|--|-------------------------------------|--|--|--|---------------------------------------------------------------------------------------------------------------|--|---------------------------|--|
| <div>- All Dimension in mm</div> <div>- Bolted Main Cover</div> <div>- Dimension Tolerance 3%</div>                                                                                                                            |  |  |  | <div>- Tank Type : Hermatically Sealed (w/ N2 Chusion)</div> <div>- Cooling Type : ONAN</div> <div>- Finishing : RAL 7032</div> |  |                    |  | <div>- Untanking Part Weight : 2415 Kg</div> <div>- Oil Weight : 1090 Kg ( 1215 Ltr)</div> <div>- Tank &amp; Fitting Weigh : 930 Kg</div> |  |                 |  | <div>- Total Weight : 4435 Kg</div> |  |  |  | <div>Projection : </div> |  | <div>Scale : Nts A3</div> |  |
| <div><div>PT BAMBANG DJAJA<br/>ENGINEERING DEPT.<br/>MECHANICAL DESIGN</div></div>                                                        |  |  |  | 3                                                                                                                               |  | -                  |  | -                                                                                                                                         |  | -               |  | Trafo Code : TR-2NM9A5-AYAD         |  |  |  |                                                                                                               |  |                           |  |
|                                                                                                                                                                                                                                |  |  |  | 2                                                                                                                               |  | -                  |  | -                                                                                                                                         |  | -               |  |                                     |  |  |  |                                                                                                               |  |                           |  |
|                                                                                                                                                                                                                                |  |  |  | 1                                                                                                                               |  | Issue For Approval |  | 18.08.23                                                                                                                                  |  | STY             |  | Drawing Number : GA-000-2NM9A5      |  |  |  |                                                                                                               |  |                           |  |
|                                                                                                                                                                                                                                |  |  |  | Rev.                                                                                                                            |  | Modification       |  | Date                                                                                                                                      |  | Approved        |  |                                     |  |  |  |                                                                                                               |  |                           |  |
| <div><div>Management System<br/>ISO 9001:2008<br/>ISO 14001:2004<br/>OHSAS 18001:2007</div><div>www.tuv.com<br/>ID 9105063643</div></div> |  |  |  | Drawing Title : GENERAL ARRANGEMENT DRAWING                                                                                     |  |                    |  |                                                                                                                                           |  | Customer : BPMC |  |                                     |  |  |  | Drawn By : 02.05.23 ASH                                                                                       |  |                           |  |
|                                                                                                                                                                                                                                |  |  |  | Distribution Transformer   800 kVA   HV 11000 V   LV 425 V   Dyn11   50 Hz                                                      |  |                    |  |                                                                                                                                           |  |                 |  |                                     |  |  |  | Checked By : 02.05.23 DHV                                                                                     |  |                           |  |
|                                                                                                                                                                                                                                |  |  |  |                                                                                                                                 |  |                    |  |                                                                                                                                           |  |                 |  |                                     |  |  |  | Approved By : 02.05.23 STY                                                                                    |  |                           |  |
|                                                                                                                                                                                                                                |  |  |  |                                                                                                                                 |  |                    |  |                                                                                                                                           |  |                 |  |                                     |  |  |  |                                                                                                               |  |                           |  |

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