



- ii. where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

**Note**

- i. A boulder is material with a particle size greater than 200mm, a cobble and gravel is material between 60 and 200mm
- ii. A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used

<b>GRANULAR MATERIALS</b>		<b>COHESIVE MATERIALS</b>	
<b>CONSISTENCY</b>	<b>DESCRIPTION</b>	<b>CONSISTENCY</b>	<b>DESCRIPTION</b>
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of a geological pick; requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.

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**Trench excavation**

All hand excavatable material in trenches having a depth of less than 1,5 metres shall be excavated by hand

**Compaction of backfilling to trenches (areas not subject to traffic)**

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers;

- a) to 90% Mod AASHTO;
- b) such that in excess of 5 blows of a dynamic cone penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
- c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP

**Excavation**

All excavatable material including topsoil classified as hand excavatable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand. Any material which presents the possibility of danger or injury to workers shall not be excavated by hand

**Clearing and grubbing**

Grass and bushes shall be cleared by hand

**Shaping**

All shaping shall be undertaken by hand

**Loading**

All loading shall be done by hand. Haulage equipment should be selected in a manner that allows loading by hand to the greatest extent possible

**Haul**

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m

**Offloading**

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage

**Spreading**

All material shall be spread by hand

**Compaction**

Small areas may be compacted by hand provided that the specified compaction is achieved. Appropriate rollers should be used where higher (than can be achieved by hand) levels of compaction are required or for large areas



**Grassing**

All grassing shall be undertaken by sprigging, sodding, or seeding by hand

**Stone pitching and rubble concrete masonry**

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must be collected, loaded, off loaded and placed by hand

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m

Grout shall be mixed and placed by hand

**Manufactured Elements**

Elements manufactured or supplied by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. Where the mass of an element exceeds 55 kg, consideration should be given to the size of the element relative to its total mass related to the number of workers who would be needed to lift such mass

**C3.10.2. Labour-intensive competencies of supervisory and management staff**

Contractors shall only engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/ Supervisors at NQF level 4 "National Certificate: Supervision of Civil Engineering Construction Processes" and Site Agent/ Manager at NQF level 5 "Manage Labour-Intensive Construction Processes" or equivalent QCTO qualifications (See Appendix C of the Guideline) at NQF outlined in Table 1

**C3.11. CONTRACT PARTICIPATION GOALS AND CONTRACT SKILLS DEVELOPMENT GOALS**

The **contractor** shall achieve in the performance of the contract the following goals as specified below. Provision for pricing of the compliance with the achieving the goals is made in the Project Assessment Scheme section of the **bills of quantities** and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced thereunder and no additional claims in this regards shall be entertained:

**C3.11.1. Minimum Targeted Enterprise Development Contract Participation Goal**

**The Minimum Targeted Enterprise Development CPG: Applicable  Not Applicable**

If, applicable;

The Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in Gazette Notice No.36190 of 25 February 2013 (Hereinunder referred to as "Standard") applies to this section

The lead partner or main **contractor** shall dedicate a minimum of 5% of the tender amount at the time of award to provide developmental support to the targeted subcontractor or joint venture partner. Preference will be given to insert type of enterprises e.g. General Building, Electrical, Mechanical, Plumbing, etc. It could be either or any combination of all enterprises

The successful **contractor** shall:

- a) Subcontract a minimum of 5% of the total project value to targeted enterprises;

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## PART C3: SCOPE OF WORKS

- b) develop the targeted enterprise/s in two development areas as specified in the Standard<sup>1</sup>, and agreed by both the main **contractor** and the targeted enterprise/s;
- c) perform needs analysis on the targeted enterprise to identify developmental goals;
- d) provide internal mentorship support to improve the targeted enterprise/s performance;
- e) develop a project-specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas;
- f) monitor and report the progress of the agreed development areas with the targeted enterprise/s; and
- g) submit a project completion report to the **employer's** representative for each targeted enterprise.

The development of the Targeted Enterprise shall be guided by the CIDB Competence Standard for Contractors Gazette No. 41237, 10 November 2017

The **contractor** shall attain or exceed the enterprise development goal in the performance of the contract. Failing to achieve the participation goal will result in a penalty of thirty percent (30%) of the value not achieved, excluding VAT, unless the **contractor** can prove to the **employer's** satisfaction that the non-achievement was beyond his/her control

The main **contractor** or lead partner in a joint venture in a leader of the awarded bid must;

- a) prepare needs analysis for indirect targeting and development in at least any two developmental areas as stipulated in paragraph 3.2.1 of the Standard;
- b) appoint an enterprise development coordinator in accordance with paragraph 3.2.3 of the Standard.
- c) provide a competent person/s to provide internal mentorship to the Targeted Enterprise/s in the two agreed developmental areas.

The enterprise development coordinator shall have the following competencies:

- a) Minimum experience of 5 years in the construction industry at a Managerial level as a Site Agent, Contracts Manager, Site Manager, Construction Manager, Business Development Manager, or Enterprise Development Manager
- b) Minimum experience of 2 years in training and development in Building or Construction; and
- c) National Diploma or B Degree in the Built Environment or Business Management

<sup>1</sup>

Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in Gazette Notice No.36190 of 25 February 2013



Format of communications

The **contractor** shall submit to the **employer's** representative:

- a) Project interim reports in the specified format (ED105P) detailing the interim value of the CPG that was achieved. Such a report shall also contain a monthly progress report, compiled by the **employer's** representative and the **contractor**, detailing an assessment of the enterprise development support provided
- b) Project completion report, in the specified format (ED101P), to the **employer's** representative for acceptance within 15 days of achieving practical completion. The report shall include the value of the CPG that was certified in accordance with the contract, cidb registration numbers of each and every targeted enterprise, and the value of the subcontracted works or the participation parameter of the joint venture entered into; and
- c) Enterprise development declaration (ED104P).

Management Meetings:

The **contractor** shall report to the **employer's** Representative on the implementation and progress of the targeted enterprise development and CPG

Forms for contract administration

The **contractor** shall submit to the **employer's** Representative the following proformas:

- a) Form ED 105P Project Interim Report
- b) Form ED 104P Enterprise Development Declaration
- c) Form ED 101P Project Completion Report

Records:

The **contractor** shall:

- a) keep records of the targeted enterprise development,
- b) keep records of the payments made to the targeted enterprises in relation to the CPG,
- c) ensure all the documentation required in terms of the Standard is provided in a timely manner and according to a prescribed format where applicable.

**Payment Certificates:**

The **contractor** shall:

- a) achieve the measurable CPG and provide enterprise development support to the targeted enterprise/s as per the Standard,
- b) submit payment certificates to the **employer** representative at intervals determined in the C1.2 Contract Data

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**C3.1.2 Minimum Targeted Contract Skills Development Goal**

**Minimum Targeted Contract Skills Development Goal: Applicable**  **Not Applicable**

If, applicable;

The **contractor** shall achieve or exceed in the performance of the contract the Contract Skills Development Goal (CSDG) established in Table 2 of the Standard for Developing Skills through Infrastructure Contracts (published in Government Gazette No 43495 of 3 July 2020, as amended (Hereinafter in this section referred to as "Standard") in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract

Failing to achieve the targeted Contract Skills Development Goal will result in A) a thirty percent (30%) penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the **contractor** can prove to the **employer's** satisfaction that the non-achievement was beyond his/her control

The **contractor** shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminaries section in the Bill of Quantities

The **contractor** may only place 33% of employees employed by him or that of his subcontractors contributing to the CSDG

The **contractor** shall employ at least 60% of the learners from a Public FET / TVET college should the **contractor** select to have trade qualification learners (Method 2) contributing to the CSDG

The successful **contractor** may employ part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates directly or through a Skills Development Agency (SDA), (A1 - List of cidb accredited SDAs).

The successful **contractor** shall employ at least zero percent (0%) from eligible part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates in the employment of the **employer**.

The successful **contractor** shall ensure that no single method shall contribute more than seventy-five percent (75%) of the CSDG for the contract

**Training requirements**

The **contractor** shall achieve the measurable CSDG by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the Skills Methods as agreed:

- a) Part/Full Occupational Qualification Learners (**Method 1**)
- b) and/or Trade Qualification Learners (**Method 2**)
- c) and/or Work Integrated Learners (**Method 3**)
- d) and/or Candidates (Method 4) as per the Standard in relation to work directly related to the contract or order as indicated under clauses 4.2 and 4.3 in the Standard.

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The **contractor** must ensure all beneficiaries of the Standard are registered with the CIDB Skills Development Agency (SDA)

**The Format of Communications:**

The **contractor** shall, within 30 days of the award of the contract and in the specific format (Form A2 Baseline Training Plan), submit to the **employer's** representative a baseline training plan

The **contractor** shall submit to the **employers** representative:

- a) an interim contract compliance training report in the specific format (Form A3 Project Interim Report) at intervals that do not exceed 3 months; and
- b) a final contract compliance training report, in the specific format (Form A5 Project Completion Report). This report shall, respectively, be submitted within 15 days of: reaching completion, end of the service, the delivery date for all work required or practical completion (in the case of professional service), service, design, and construct contracts, and engineering and construction works contracts,

**The Key Personal:**

For Structured Workplace Learning Opportunities for Learners (Method 1 and Method 2)

The **contractor** shall:

- a) appoint a responsible supervisor to allocate learning tasks, to learners in line with their training plans.
- b) appoint an artisan in the applicable trade with a minimum of 3 years to mentor learners associated with structured workplace learning.

For Structured Workplace Learning for Candidates (Method 3 and Method 4)

The **contractor** shall:

- a) appoint a supervisor who is actively engaged in work directly associated with the contract to issue tasks,
- b) appoint a suitable mentor as required by the professional body or statutory council.

**Management Meetings:**

The **contractor** shall report to the **employer's** representative on the implementation and progress of the CSDG

The Forms for Contract Administration:

The **contractor** shall submit to the **employer's** representative the following proformas:

- a) Form A2 Baseline Training Plan
- b) Form A3 Project Interim Report
- c) Form A5 Project Completion Report

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**Records:**

The **contractor** shall:

- a) keep records for learners and candidates of the hours worked and registration with the cidb SDA, Sector Education Training Authorities SETA's (where required), and professional statutory councils (where required) particulars towards compliance with this Standard
- b) ensure all the documentation required in terms of clause 4 in the Standard is provided in a timely manner and according to a prescribed format where applicable
- c) upon termination of the opportunities provided to satisfy the CSDG, certify the quantum and nature of the opportunity and submit the certificate and counter-certified by the relevant individual, to the **employer's** representative for record-keeping purposes

**Payment Certificates:**

The **contractor** shall:

- a) achieve the measurable CSDG as agreed by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the Skills Methods as per the Standard in relation to work directly related to the contract or order as indicated under clause 4.2 and 4.3 in the Standard
- b) submit payment certificates to the **employer's** representative at intervals determined in the contract

**C3.12. ANNEXURES**

**Annexure A:** Design Specifications as listed in Paragraph C3.2.2

**Annexure B:** Tender Drawings as listed in Paragraph C3.3.1

**Annexure C:** Geotechnical investigation report

**Annexure D:** Occupational Health and Safety Specifications



*CONSTRUCTION OF BHOSIKI NEW POLICE STATION: KWAZULU  
NATAL PROVINCE*

***BID: 19/1/9/1/27 TB (24)***

**PART C:**

**CONTRACT**

**Part C4**

**Site information:**

# C4 SITE INFORMATION

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## C4: SITE INFORMATION

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### C4: SITE INFORMATION

**Project** : CONSTRUCTION OF THE NEW BHOSIKI POLICE STATION: KWAZULU-NATAL PROVINCE

**Employer** : South African Police Service      **Reference** : 19/1/9/1/27 TB (24)

#### C4.1 SITE LOCALITY

Erf/stand number	Erf 565
Site address	Mthimude Bhosiki
Township / Suburb	Mthimude Bhosiki
City / Town	Izingolweni (Portshepstone)
Province	KwaZulu-Natal
Local authority	Ray Nkonyeni Municipality
GPS Coordinates	29°59' 27.662"E    30°48' 33.514"S

Google Earth picture for site locality below:



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**C4.2 GEOTECHNICAL INFORMATION**

**C4.2.1 Nature of Ground**

The Geotechnical Investigation report is attached herein for detailed description of the nature of the ground.

Whilst the information provided above is given in good faith, the Engineer and Employer accept no responsibility for the accuracy thereof. It remains the responsibility of the Contractor to verify the actual ground conditions during construction and to take appropriate measures to ensure the safety of persons and the Works at all times.

**C4.3 EXISTING BUILDINGS**

There are no existing building on site.

**C4.4 EXISTING SERVICES, SERVITUDES AND WAYLEAVES**

The known existing services are shown on the drawings. The positions of the services cannot be guaranteed. On establishing on site, the contractor must determine the positions of all pipelines and cable routes with the assistance of the engineer and the employer's staff on Site. The contractor must take precautions to prevent any damage to existing services. Damages that might occur will be repaired at the cost of the contractor.

The contractor must also excavate to determine the position where the installed outfall starts and determine the invert level of the first manhole.

Wayleaves will be required.

**C4.5 ACCESS TO SITE**

Erf 565 borders onto Back street, which also affords access to the property. The street has a gravel surface and being a public road is maintained by the municipality. Refer to the site plan attached herein depicting the current developed site.

**C4.6 ADDITIONAL SITE INFORMATION**

**C4.6.1 Water Supply**

Water is not available for construction purposes and the Contractor must make his/her own arrangement for water supply to the site. The contractor will be responsible at his or her own cost for the supply and distribution of water for construction use.

**C4.6.2 Electricity Supply**

Electrical power is not available for construction purposes and the Contractor must make his/her own arrangement for electrical power supply to the site. The contractor will be responsible at his or her own cost for the supply and distribution of electricity for construction use.

**C4.6.3 Environmental Issues**

The site is not particularly sensitive from environmental perspective.

The police station construction does not trigger any listed activities in terms of the 2014 EIA Regulations and can therefore proceed without an application for environmental authorization in terms of the National Environmental Management Act, Act 107 of 1998, as amended

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**C4.6.4 Traffic assessment**

There is no need for traffic impact assessment since the site is anticipated increase in vehicular trips, associated with the proposed upgrade will not exceed the threshold which requires a traffic impact study.

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