

Reference: SANRAL N.002-070-2024/2
Issue Date: 25/04/2024
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Dear Tenderer

CONTRACT NUMBER: N.002-070-2024/2

THE UPGRADING OF NATIONAL ROUTE 2 SECTION 7 BETWEEN TOUW RIVER (km 36.80) AND DIE VLEIE (km 43.58)

ADDENDUM NO. 2

This addendum is issued in terms of Clause C.3.2 of the Tender Data and must be read in conjunction with and shall be deemed to form part of the Tender Document.

Kindly acknowledge receipt of this addendum by completing the ACKNOWLEDGEMENT OF ADDENDUM below. Failure to acknowledge this addendum may invalidate the Tender.

Yours sincerely,



**PROCUREMENT OFFICE
SANRAL WESTERN REGION**

PART 2A: SPECIFIC DETAILS & QUESTIONS RELEVANT TO THE CONTRACT

This addendum is to be read in conjunction with and shall be deemed part of the Contract Documents.

CONCERN	TENDER DOCUMENT	RESPONSE
<p>a. Mixed-In-Place Wall: Specialist plant will need to be hired/purchased from an international source at a significant cost the contract.</p> <p>b. The plant is highly specialised and will unlikely to be used again (if purchased).</p> <p>c. The upfront cashflow requirements for the purchase of the plant are excessive given the size of the Geotech Contractors currently operating in South Africa (most of the Contractors can't afford the initial cash outlay).</p> <p>d. The lead time to procure the plant will place immense pressure on an already tight construction programme (the MIP walls are critical as they are enabling works for the Main Contractor to carry out the road construction). On placement of the order, we expect a 3 to 4 month lead time for the machine to reach South Africa. During that time, little work on our critical path can be completed.</p> <p>2. Given the above, we request that the Engineer consider an alternative solution to the machine specified. It is our view that locally available alternatives exist that can be used to successfully retain the dunes.</p>	<p>Volume 3 Book 3 of 3 COTO CHAPTER 12: GEOTECHNICAL APPLICATIONS – P12.13: MIXED IN PLACE WALLS</p>	<p>The tenderer is required to price the postulated design.</p> <p>The concerns raised were considered in the program and construction estimate; the initial lead time procurement delays are overcome by timeous placement of order on award; including during the 3 month's mobilisation period.</p> <p>Benefit is gained from the higher production achieved during construction compared to other methods resulting in a reduced construction period and costs.</p> <p>The tenderer must also consider that there is a requirement to maintain traffic with minimal disruption, and closures, which is not easily achieved through other conventional methods.</p> <p>Additionally, the tender must consider that temporary support (designed by contractor) is required for the cuts behind high fill-MSEs. These temporary cuts are in similar loose sandy profiles, are of similar height and must support the N2 during construction; the tenderer may consider (but is not obliged) use of the same system to improve the economies of scale.</p> <p>Notwithstanding, the tenderer may provide alternatives according to the tender rules which the client will evaluate. Such alternatives must also clearly indicate the programme gains/losses compared to the clients postulated scheme as well as a comparison between the traffic accommodation plans.</p>
<p>This is a general query (not technical in nature) relating to alternative offers.</p>	<p>Volume 3 Book 1 of 3 T1.2 TENDER DATA</p>	<p>The conditions of tender are the standard conditions of tender as</p>

CONCERN	TENDER DOCUMENT	RESPONSE
<p>Please clarify if the Contractor's primary/main bid must be ranked lowest in order for his alternative offer to be considered.</p>		<p>contained in Annexure C of the CIDB STANDARD FOR UNIFORMITY IN ENGINEERING AND CONSTRUCTION WORKS CONTRACTS as per Government Notice No. 423 published in Government Gazette No. 42622 of 08 AUGUST 2019 and as amended from time to time. Reference to the following:</p> <p>C.2.12 Alternative tender offers</p> <p>C.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.</p> <p>C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.</p> <p>C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.</p>

PART 2B: AMENDMENTS TO TENDER DOCUMENT

1. GENERAL NOTE TO TENDERERS

Amendments to the Tender Document, which is in PDF format, cannot be made electronically by any tenderer and shall be changed manually, before submission of the Tender Proposals. However, the Returnable Schedules that are in electronic format (MS Word) should be amended. Where amendments have to be made to the Pricing Schedule (MS Excel), a completely new Ms Excel spreadsheet has been provided.

2. AMENDMENTS TO TENDER DOCUMENTS

2.1 VOLUME 3:

2.1.1 BOOK 3 OF 3

2.1.1.1 COTO CHAPTER 3: DRAINAGE (Page C3-25)

(a) SECTION 3.2 CULVERTS

C3.2.15 Manholes and catch pits, with prefabricated elements

PC3.2.15.5 Manholes, catchpits, precast inlet and outlet structures complete (Describe structure)

(i) *Delete this payment item and replace it with the following:*

“PC3.2.15.5 Manholes, catchpits, precast inlet and outlet structures (Describe structure)

The unit of measurement is the number of each type and size of drainage structure.

The tendered rates shall include full compensation for providing all labour, constructional plant and materials required for supplying and constructing the complete structure.

Only the accessories measured under payment item C3.2.19 shall be paid separately where applicable.”

(b) SECTION 3.3: CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS

PC3.3.17 Tactile (Bubble block) paving at pedestrian crossings ...square metre (m²)

Delete and replace the payment description with the following:

“The unit of measurement shall be the square metre of tactile paving constructed complete at pedestrian crossings.

The tendered rate shall include full compensation for all work necessary for the procuring, furnishing all materials, excavation, preparing and shaping the surface of the block paving as well as the surrounding sloped area as indicated, surrounding sloped concrete as indicated, dropped kerbing, providing bedding and layerworks, loading, transport, off-loading, laying and compacting the block paving, trimming, accessories, supervision and other incidentals necessary to complete the block paving as specified.”

2.1.1.2 COTO CHAPTER 12: GEOTECHNICAL APPLICATIONS (Page C3-48)

(a) P12.6 MECHANICALLY STABILISED EARTH AND GABIONS

PART A SPECIFICATION (Page C3.52)

PA12.6.1 SCOPE

Delete (2) which reads "(2) Only metallic reinforcement shall be utilised" *and replace with the following:*

"(2) Either polymeric or metallic reinforcement may be utilised which may be extensible or inextensible."

Add the following:

"(3) Reinforcement shall have a service design life of 100 years and post construction strain in reinforcement not exceeding 1.0%.

(4) The reinforcement length and type should satisfy design requirements for both internal and external stability to accepted standards.

(i) The external stability shall be the responsibility of the engineer and checked by the Supplier. In this regard the minimum length of strip based on overall stability requirements shall be taken as $1.3 \times \text{Height (supported height + embedment)}$. The embedment shall be the minimum specified in SANS 8006-1:2018 or as indicated in drawings where greater embedment is required.

(ii) The internal stability, in particular reinforcement elements, fixing mechanism and facings shall be the responsibility of the supplier and checked by the Engineer. In this regard where concrete barriers atop a MSE the impact load on concrete impact barriers of 100KN/m shall be considered. Internal designs shall be based on details (including geometry) provided on drawings, SANS 8006-1:2018 and the following design parameters and assumptions:

Design Basis for Foundations (in situ soils):

Friction Angle	(degrees)	ϕ	30
Cohesion	(kPa)	c	0
Bulk density	(kN/m ³)	γ	16
Phreatic condition:			water at toe

Design Basis for MSEW:

Earth quake loading		g	0.08
Design life	(years)		100
Minimum Reinforcement length		L	**
Surcharge Load	(kPa)	w_s	10
Minimum embedment (metre)		D_m	**

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Directors: Mr. T Mhambi (Chairperson), Mr. R Demana (CEO), Mr. R Haswell, Mr C Hlabisa, Mr. E Makhubela, Mr. T Matosa Ms. R. Buthelezi, Ms. NL. Noxaka| Company Secretary: Advocate S Linda
Reg. No. 1998/009584/30. An agency of the Department of Transport.

Friction Angle	(degrees)	ϕ	37
Cohesion	(kPa)	c	0
Bulk density	(kN/m ³)	γ	20

**as stipulated above

(5) Excavations to accommodate the reinforced area behind the wall, including where required, soil rafts shall be measured as mass earthworks.

(6) Temporary lateral support (a form of positive support other than battering of slopes) will be required at certain wall positions.

(i) All designs will be submitted to the engineer for review and comment. The designs shall be undertaken by a Professionally Registered Engineer (ECOSA) with a minimum of 10 years geotechnical experience.

(ii) No payment will be made where no lateral support is required and excavations can be battered (including vertical batters).

PART C MEASUREMENT AND PAYMENT

C12.6.12 Facings (type, size and thickness indicated)

Delete the entire item C12.6.12 and replace with the following:

PC12.6.12 Facings (complete)

PC12.6.12.1 For reinforced concrete panel facing (140mm thickness); installation complete; inclusive of all reinforcement (polymeric or metallic), and fixing mechanism according to (single source) supplier detail.

- a) Concrete panels (F2 surface finish) to embedded sections of Mechanically Stabilised Earth Wallssquare metre (m²)
- b) Special Concrete Panels
 - (i) Exposed Aggregate finish panels.....square metre (m²)
 - (ii) Pipe outlets (for pipes <0.5m diameter)square metre (m²)
 - (iii) Pipe outlets (for pipes 0.5m – 1.0m diameter)square metre (m²)

The unit of measurement shall be the square metre of panel of the indicated size and thickness. The front vertical face shall be measured from the top of the base including embedment to the top of the earth retaining systems and include the surface area of nominal panel joint openings and wall penetrations such as pipes and other utilities.

The tendered rate shall include full compensation for procuring, furnishing, transporting, handling and placing all materials including the reinforcement elements (strip, grids, etc.) and any additional costs required for placing the panels and reinforcement elements into position, complete, as specified.

All materials shall be sourced from a single MSE supplier to ensure compatibility. The MSE supplier remains responsible for the supply of reinforcement to the minimum strength and length indicated on the Engineer drawings; and for the design of the reinforcement elements, fixing mechanism and facings as stated in specification scoping above.

The tendered rate shall also include full compensation for the manufacture, supply, labour, plant and equipment required for the installation as well as for the sealing of the panel to prevent material egress through panel joints.

Add the following new payment specification:

**PC12.6.20 Temporary lateral support to excavations behind MSEs
(designed by contractor).....Square metre (m²)**

The unit of measurement shall be the square meter of excavated face supported, measured down from the existing road or top of wall levels. The tendered rate shall include full compensation for procuring and installing the lateral support system, as well as for removal, if required. It shall include for all design, materials, labour, plant, equipment and incidentals to provide support to the excavated faces for the duration the MSEW construction.

The cost of excavating the material shall not be included but measured elsewhere. No payment will be made where excavations can be safely battered, where these stand without support and/or where no positive form of support is provided or in the opinion of the Engineer required. All designs will be submitted to the engineer for review and comment.

(b) P12.13 MIXED IN PLACE WALLS (Page C3.59)

(i) PA12.13.3 PLANT

PA12.13.3.2 Soil mixing equipment

Replace the content of the first paragraph with the following:

"The soil mixing equipment shall be capable of creating a wall with a minimum thickness of 500mm to a depth of 5m (as indicated from the top of wall level on the drawings) and with proven technology within the industry in good working order. It is advisable that the rig does not exceed 3.5m in width; the rig width shall be considered in the contractor's temporary support and design. A slot shall be excavated on the working platform and the slurry placed, thereafter the slurry shall be mixed into the soils with the blade configured in such a way that it is capable of blending the insitu soils and grout slurry into a homogenous mixture. The power source for driving the blade shall be sufficient."

PA12.13.4.2 Vertical Alignment

Replace the content of the first paragraph with the following:

"Vertical alignment of the blade stroke will be controlled by the platform level and the mixing equipment operator. The vertical alignment might not differ by more than 1.0° from the vertical."

PA12.13.4.4 Advance Rate

Replace the content of the clause with the following:

"in order to ensure adequate mixing, the penetration rate of the blade shall be maintained such that proper mixing takes place. The advance rate, grout take and mixing shall be measured using an onboard monitoring system."

PA12.13.4.6 Spoil material, vibrations and noise

Replace the content of the clause with the following:

"All spoil material shall be removed in accordance to the environmental assessment in to a place agreed to by the engineer. Noise shall be kept to a minimum and only from 08h00 – 17h00 on weekdays.

PPV readings shall be limited to 25mm/s, measured 50m from the rig."

2.1.2 PRICING SCHEDULE

- (a) **Replace Contract SANRAL N.002-070-2024_2 - Touw River to Die Vleie - Pricing Schedule Excel File**
with
Contract SANRAL N.002-070-2024_2 - Touw River to Die Vleie - Pricing Schedule (Addendum 2) Excel File

2.2 VOLUME 5:

2.2.1 STRUCTURE DRAWINGS

2.2.1.1 SOIL NAIL WALL – (TYPE L)

- (a) Drawing **SNAIL2_010 TYPICAL RETAINING WALL DETAILS**
(Drawing No C1582-S-C[SNAIL2]-010 – **SOIL NAIL WALL – TYPE L FROM km 38.750 TO km 41.700 – TYPICAL RETAINING WALL DETAIL**)
(i) **DETAIL 2: NAIL DETAILS**
(1) *Change the description of the nail from:*

"GALVANISED HOLLOW SELF DRILLING NAIL T-THREAD fy: 500-600 MPa
MIN CROSS SECTION 446 mm²

to

"SELF-DRILLING, FULLY GROUTED, T-THREADED BAR OF MINIMUM CHARACTERISTIC STRENGTH 450 MPa TO SANS920, MINIMUM 110mm DISPOSABLE DRILL BIT, PLATE, NUT SPIDER, ALL GALVANISED".

- (2) *Change the description of the diameter of the SDA columns from:*

"FULLY GROUTED (GROUT DIA. 140mm fc: 25 MPa)

to

"FULLY GROUTED (GROUT DIA. 110mm MINIMUM fc: 25 MPa)

2.2.1.2 SOIL NAIL WALL – (TYPE R)

- (a) Drawing **SNAIL1_015 TYPICAL RETAINING WALL DETAILS**
(Drawing No C1582-S-C[SNAIL1]-015 – **SOIL NAIL WALL – TYPE R FROM km 38.200 TO km 43.150 – TYPICAL RETAINING WALL DETAIL**)
(i) **DETAIL 2: NAIL DETAILS**
(1) *Change the description of the nail from:*

"GALVANISED HOLLOW SELF DRILLING NAIL T-THREAD fy: 500-600 MPa
MIN CROSS SECTION 446 mm²

to

"SELF-DRILLING, FULLY GROUTED, T-THREADED BAR OF MINIMUM CHARACTERISTIC STRENGTH 450 MPa TO SANS920, MINIMUM 110mm DISPOSABLE DRILL BIT, PLATE, NUT SPIDER, ALL GALVANISED".

(2) *Change the description of the diameter of the SDA columns from:*

"FULLY GROUTED (GROUT DIA. 140mm fc: 25 MPa)

to

"FULLY GROUTED (GROUT DIA. 110mm MINIMUM fc: 25 MPa)

The South African National Roads Agency SOC Limited
01 Havenga Street
Oakdale, Bellville
7530

ACKNOWLEDGEMENT OF ADDENDUM NO. 2

I _____

Representing _____

Hereby acknowledge that I have received the above addendum and that I am conversant with the contents thereof.

Receipt of Addendum No.2 is hereby acknowledged. Please acknowledge all files received by ticking the appropriate box.

Tick (✓)	Type of Document	Document Name
	(*pdf)	Addendum No.2 – N.002-070-2024/2
	(*Excel)	Addendum No,2 - Amended Pricing Schedule Addendum 2 for N.002-070-2024/2

SIGNATURE: _____

DATE: _____

This Addendum is to be read in conjunction with and shall be deemed to form part of the Contract Documents.

You must therefore acknowledge receipt of this addendum by emailing this form to the South African National Roads Agency SOC Limited at procurementWR3@sanral.co.za and the original must be attached to the Returnable Schedules.

Failure to acknowledge receipt of this addendum may invalidate the Tender.