

Transmission Unit 2 Marlow Street, Suva



TENDER SPECIFICATIONS

TENDER NO: MR320/17

Preferred Supplier for the Supply of AP65 & AP40 Base Course for 33kV Underground Cabling Works

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TENDER NO: MR 320/17: Preferred Supplier for the Supply of AP65 & AP 40 Base Course for 33kV Underground Cabling Works

The Fiji Electricity Authority (FEA) is requesting proposal from Interested Suppliers to supply approximately **1500 cubic meters (m³)** of AP65 and **1500 cubic meters (m³)** of AP40 Base Course required for the purpose of backfilling of trench as per FRA requirement during 33kV underground Cable Installation Works from Cunningham Zone Substation, along Cunningham Road, Princess Road, and Reservoir Road, to Hibiscus Park Zone Substation.

Eligibility/Selection Criteria of the Bidding Contractor

The Supplier shall have a sound knowledge of the subject area. The Supplier shall take all necessary precautions to prevent any damages to the FEA assets and private properties in the area. The Supplier shall visit offloading areas and accordingly offer to execute and complete the provision and carting of Base Course to areas identified by the FEA Representative.

A Mandatory site visit will be conducted on Thursday 23rd November, 2017 commencing at 10am at Kinoya Depot.

The Bidder shall submit the names/contacts of utilities or projects where they have previously undertaken such work required by this Tender.

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1.0 TECHNICAL SPECIFICATIONS FOR THE CRUSHED METAL

1.1 Extraction

The quarry or pit shall be worked in such a way as to ensure that unsuitable material is not included in the material supplied.

For production of base course crushed rock, both the primary and secondary crushers shall be provided with scalping screens to ensure that any remaining overburden is removed from material supplied.

1.2Source Rock

Sedimentary source shall not be used for production of crushed rock base course material. Igneous of metamorphic rock shall have a Los Angeles Abrasion Loss complying with the relevant requirements of the table below:

If a source rock is to be used other than the type in the table blow, The FRA Engineer will determine whether the rock type is acceptable and will set appropriate limits.

Source rocks which does not comply with the specified requirements but from which crushed rock of satisfactory performance has been produced, may be accepted for use subject to the written approval of FRA Engineer.

Rock Type	Los Angeles Abrasion Loss (max)		
	Base	Subbase	
Granite	40	45	
Granodiorite	40	45	
Basaltic Rocks	30	35	
Homfels	25	25	
Quartzite	30	35	

For crushed rock the product shall comply with the properties shown in the table below:

Property	Base	Subbase
Sand Equivalent % (min)	50	-
Liquid Limit % (max)	30	40
Plasticity Index (max)	2 - 6	2 - 12
California Bearing Ration %	80	30
(max)		
Flakiness Index Max	35	35

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1.3 Grading

For natural gravels, sands and soft or ripped rock, the product grading prior to completion shall comply with the broad requirement. Material supplied shall conform to these grading limits.

For crushed rock, the product grading prior to compaction shall comply with the requirements. The crushed rock shall not be graded from near the coarse limit on one sieve to near the fine limit on the following sieve or vice versa. At least 75% by mass of the aggregates in the product that are retained on the 6.50mm sieve shall have two or more faces produced by crushing.

1.4 Maintenance Aggregate Grading

Sieve Size (mm)	AP65 & AP40 SUB Base (Aggregate Grading % Passing)
65	100
37.5	N/A
19	45-90
9.5	30-60
4.65	N/A
2.36	N/A
1.18	N/A
0.65	10 Max

Sieve Size (mm)	% passing by mass		
	Base	Sub base	
75		100	
37.5	100	60-85	
2.36	15-40	14-36	
0.075	12-22	2-10	



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- 1. The Clay Index of the material must be based on AS/NZS 4402, of not greater than 5% Plasticity Index.
- 2. The Clay friction must
 - a. Be free of all organic, vegetable or other deleterious material.
 - b. Pass the 4.65mm sieve (AP65)
 - c. Be blended so the blended aggregate has a uniform texture with no segregation of fine and coarse material.
- 3. Laboratory 4 day soaked California Bearing Ratio (CBR) of greater than 50, un-surcharged or a crushing resistance of greater than 100kN in accordance with AS/NZS 3111:1980.
- 4. The testing frequency shall be 1 test per 5,000m² of maintenance aggregate constructed.
- 5. The material must be approved by FRA (Certification to be provided).
- 6. If FRA opt to change their specification in the production of base course, the Bidder is required to comply with the standards and specification given by FRA.

2.0 Standards Applicable for this Tender

STANDARD	TITLE
AS/NZS 4402	Methods of testing soils for civil engineering purposes
AS/NZS 3111	Methods of test for water and aggregate for concrete

Note: Bidders shall demonstrate/submit proof of the product's compliance of the aforementioned standards.



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3.0 Manufacturer's Qualification

The manufacturer shall be ISO 9001-2000 certified and shall have sufficient supply and manufacturing experience of AP65 & AP40 Base coarse for at least ONE (1) year for the required work specifications.

As proof, the manufacturer shall submit a supply-list indicating the grade of base course, quantity supplied, name of client and the year of delivery. Certificates from customers with satisfactory usage may be provided with the supply record.

Only those Suppliers shall be considered, for which a minimum of 1-year manufacturing and successful service experience is available, without change of basic design of the plant and the material. Suppliers shall also be considered for whose material are suitable for carriageway trench backfilling purposes and such relevant detail to be provided.

4.0 Experience Evaluation

For evaluation of manufacturer's qualifications, the manufacturer must submit a reference list showing supply experience for supply of Base course. In addition, if any inservice failure due to the quality of the material has been experienced, the manufacturer should submit the information on the failures including the cause of the failures and the counter consequences taken.

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5.0 Pricing Schedule

The Supplier shall submit the lump sum VIP price in Fijian currency to carry out the following works. The Supplier shall submit his price for the Supply of 1500 m3 of AP65 and 1500 m3 of AP40 to Project Site, Including Cartage, Delivery, etc. in the following manner.

ltem	Description	Quantity Required	Unit Price of Base Coarse (FJD VIP) (Price/m ³)	Unit Price Cartage of Base Coarse (Price/m³/km)	Approximate Distance from Bidders source of Base Course to delivery	Total Price (FJD VIP)
					site	
1	Supply and Cartage of AP65 Base Coarse	1500m ³				
2	Supply and Cartage of AP40 Base Coarse	1500m ³				
					Total Price	

Please note that this will be a rate to measure contract, thus, the actual distances travelled by the suppliers truck will be considered. Therefore, an initial joint verification of distances will be done by FEA representatives and the supplier.

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Unit Prices

Bidders are to submit unit prices for the supply of Fine Sand. This is applicable to delivery of base course on other location and to be used as a preferred supplier of base course.

ltem	Description	Prices (FJD VIP)
1	AP65 per Cubic Meter	
2	Cartage of AP65 (S/m³/km)	
3	AP40 per Cubic Meter	
4	Cartage of AP65 (S/m³/km)	

6.0 Trucking Information

ltem	Description	Quantity
1	Number of Trucks that will be used in the supply	
2	Maximum base coarse Loading Capacity	Truck Number Capacity (m ³)
	per Truck. Bidders shall give a list of trucks and their capacity if the truck capacity varies.	1.
		2.
	3.	
		4.
	5.	
		6.
3	Maximum quantity that the supplier can deliver in one day	



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These offloading areas along Multiple Road Side location along the cable route (Cunningham Road, Princess Road & Reservoir Road) will be shown to the Contractors by FEA Site Visit Representative. Also, the Supplier will be required to stockpile Base Course at a specified location in Kinoya Depot after instructions by FEA representative.

Bidders to utilize the above table to submit prices.

Prices shall be valid for at least 90 calendar days, from the closing date of this tender.

7.0 Duration of Production and Delivery

The FEA requires the delivery of the Base Coarse as and where required. Bidders shall clearly indicate the duration of production and transportation. The bidder if awarded the contract shall ensure that the Base Course is delivered within 48hours to the said FEA site whenever required as the preferred supplier.

8.0 Payment Terms

FEA's standard 30 days payment policy upon delivery of goods and services applies. Bidder's to explicitly note all exceptions and/or reservations to the same if any.

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Tender Submission - Instruction to bidders

Two (2) hard copies of the tender bids in sealed envelope shall be deposited in the tender box located at the Supply Chain Office at the FEA Head Office, 2 Marlow Street, Suva, Fiji.

Courier charges for delivery of Tender Document must be paid by the bidders.

A Mandatory site visit will be conducted on Thursday 23rd November, 2017 commencing at 10am at Kinoya Depot

This tender closes at 4.00pm (1600hrs) on Wednesday 29th November, 2017.

Each tender shall be sealed in an envelope with:

The envelope bearing only the following marking:

Tender - MR 320/17 - <u>Preferred Supplier for the Supply of AP65 & AP40 Base Course for</u> 33kV Underground Cabling Works

The Secretary Tender Committee

Fiji Electricity Authority

Head Office

Suva

Fiji

It must also indicate the name and address of the tenderer on the reverse of the envelope.

All late tenders, unmarked enveloped and envelopes without bidder's name and address on the reverse on the envelope will be returned to the Tenderers unopened.

For further information or clarification please contact our Supply Chain Office on phone (+679) 3224360 or (+679) 9991587.