

TENDER NO – MR 374/2018

**PROJECT: 415V UNDER GROUND CABLE
INSTALLATION AT TIRI PLACE, PACIFIC
HARBOUR DUE TO U/G CABLE FAULT**

Notes :

1. Bidders to provide 2 hardcopies of tender bid.
2. Safety Plan to be included in tender bid, and will be part of evaluation.
3. Cable Jointer Certificate to be included in tender bid.
4. Safety Report for 2017, 2016 to be submitted with tender.
5. All ducting work shall be carried out BEFORE trenching along grass verge etc.
6. Contractor shall provide photo ID of all employees who will be working on the project, clearly indicating their Employment/FNPF number and Job Description.

The installation of the cable shall be carried out under direct EFL supervision.

All work requiring EFL supervision shall be started and completed during normal working hours.

HSE REQUIREMENTS

The following documents are to be submitted with the Tender :

- 1). **Contractor HSE Specification** – it contains 10 clauses which contains the overall HSE requirements and the contractor needs to agree to this.
- 2). **Contractor HSE Plan** (Document HSE41C04) – The contractor shall fill in each part of the Plan.
- 3). The Contractor will list down all the plants and equipment to be used in the **Plant & Equipment Register** as well as chemicals in the **Chemical register**.
- 4). The **JSA & Risk Assessment** form will require the contractor to identify hazards which may not have been adequately addressed in EFL's existing procedures and outline proposed controls.

FIRST SCHEDULE

A. SPECIAL CONDITIONS OF CONTRACT

1. The works shall comprise the installation of ducts and cable (including footpaths, sealed roads and grass verge).

(a)	Location	Tiri Place, Pacific Harbour
(b)	- Route length of Trenching from last pillar box on Ki Ave to Tiri Road road up to last pillar box - Lay 2 x 100mm PVC conduit	170 metres approx. (1 week)
	Trenches specs	0.8m depth X 500mm width
(c)	Laying of 1 X 35mm sq 4 core orange circular 415V power cables	170metres approx.

Note:

1. Ducts (supplied by EFL) will need to be laid across the grass verge/soil driveway crossing.
2. Route comprises grass verge and soil.

2. The Contract sum (refer clauses 4 and 23) for the works shall be \$ VIP.

- a) Payable in a single lump sum upon final completion of the works; or
- b) payable at the completion of each stage as follows :
 - 30% upon completion of phase 1,
 - 30% upon completion of phase 2,
 - 30% upon completion of phase 3,
 - 10% retention fund.

3. (Refer clauses 5, 18, 19, 21 and 22)

- (a) Latest date for commencement of the works :
- (b) Date of completion of Phase 1 :
- (c) Date of completion of Phase 2 :
- (d) Date of completion of Phase 3 :
- (e) Date of practical completion of the works. :
- (f) Date for final completion of the works :

4. For the purpose of supervising the contract on behalf of the Authority, references in the General Conditions to the Authority shall include the Unit Leader Distribution Central or his designated officer. The Project Manager, Project Engineer and Project Supervisor shall be the Construction Coordinator Central.
5. Insurance (refer clause 14)
 - (a) Contractor's risk \$500,000.
 - (b) Public Liability \$500,000.
 - (c) Worker's Compensation \$250,000.
6. Liquidated and ascertained damages (refer clause 20):
\$200 per day.
7. Defects Liability period (refer clause 21): 6 months
8. Retention Fund (refer clause 24)
 - (a) Limit of retention fund : 10% of contract sum
 - (b) Nature of retention fund : cash
 - (c) Release of retention fund : Subject to no pending defect, and as per EFL Finance Policy.

SECOND SCHEDULE

B. Specification for 415V UNDER GROUND CABLE INSTALLATION AT TIRI PLACE, PACIFIC HARBOUR DUE TO U/G CABLE FAULT

1.0 General

This specification covers the installation of 415V Underground Cable installation from the last pillar box at Ki Ave to the last pillar box on Tiri Place, Pacific Harbour under conditions of Contract attached herein.

2.0 Scope of Work

Work involved in this contract is broadly classified into three phases:

Phase 1. Trenching and ducting

Phase 2. Laying of power cable

Phase 3. Backfilling of trench

2.1 Phase One – Trenching of cable route

The first phase comprises of the following works:

- Installation of ducts across drive ways
- Ground excavation for the power cable.

Note – all ducting works is to be completed BEFORE excavation of grass verge. This is to ensure that trenched are kept open for a minimum duration.

2.2 Phase Two – Installation of power cable and conduit

The second phase will involve the installation of power cable. This involves manually pulling the cable along the trench using rollers (supplied by EFL), and through ducts. The trench bed must have fine sand backfilled before pulling of cable.

All the work of phase two must be as per the specifications given in the drawing and it shall conform to all aspects of the standards outlined in the "Standard Overhead Line Design and Construction Manual" a guideline set by EFL.

This work shall be carried out under direct supervision of EFL personnel, and

is to be done during normal working hours only. Set up of cable drums shall be done by the contractor.

This phase shall be deemed complete once the cable has been tested healthy by EFL Technicians. In the event that the cable fails to pass the test, the Contractor shall be required to pay all costs associated with the fault location and repair of the damage/fault.

2.3 **Phase Three – Backfilling of trenches**

This phase of the contract involves the backfilling of trenches.

Various works for this phase will be:

- i) apply suitable layer of sand bedding (to be supervised by EFL).
- ii) Backfill sand on top of cable to height specified by EFL site supervisor.
- iii) Backfill remainder of trench with trench spoil.

All materials (cable and slab) are to be transported to work site by the contractor.

The contractor is responsible for ensuring that all unused excavated soil and is laid neatly on top of the trench to allow for soil subsidence. All left over materials is to be returned to the Kinoya Stores and credited accordingly.

Sand shall be supplied by EFL.

All the works of phase three must be as per the specifications, and it shall conform with all aspects of the standards outlined in the "Standard Overhead Line Design and Construction Manual", guideline set up by EFL.

C : CONTRACTOR REQUIREMENTS

1. **Tender Bid** – Contractor shall submit a firm lump sum bid.
2. **Site Visit** – Contractor shall participate in a site visit which is compulsory. Bids from tenderers who do not participate in the site visit shall be disqualified.
3. **Standards** – All construction work shall be in compliance with EFL Standard Overhead Line Design & Construction Manual.
4. **HSE Compliance** – The tender bid shall include all requirements from the EFL HSE Contractor Safety Management System. These will be evaluated by the EFL's HSE Unit. Tender bids with incomplete, unacceptable, or without the HSE requirements will not be considered for award.
5. **Safety Record** – Tender bid shall include a brief report on Safety performance over the last two years. The report shall include all incidents and accidents.
6. **Sub-contracting** – Subcontracting shall not be permitted, except where this is specifically presented in the tender bid, and only upon approval by EFL. Subcontractors shall be required to fulfil all requirements as if they were the contractor.
7. **Scope of works** - Work involved in this contract is broadly classified into three phases, and progress payments shall be processed accordingly.
 - i) Ducting, trenching
 - ii) Cable installation
 - iii) Backfilling
8. **Contact** - Contractor shall have a valid postal address, Office phone/fax/e-mail contact. The Principal shall be available by mobile phone at any time.
9. **Work Program** - Contractor shall submit a work programme before starting of project. This shall be part of the contract. Work shall commence within seven (7) days after receiving an official EFL Local Purchase Order.
10. **Training** – Contractor shall ensure his employees have attended EFL Safety Manual Training at least once in the past 6 months, and records of this shall be submitted with the tender bid. In the event that the training has not been carried out, the Contractor shall ensure these training are carried **PRIOR** to induction for new project.
11. **Ground condition** – Contractors are to note that sub-soil comprises soapstone and could contain other services like Telecom Fiji Ltd, Water & Sewerage, etc.
12. **Invoicing** – Contractor shall submit details of work completed to allow prompt approval of invoice.

13. **Safety Induction** - A Safety induction must be conducted before start of power line construction work.
14. **Instruction to Commence Work** - Contractor shall NOT commence work on site unless an "Instruction to Commence Work" has been received from the Project Manager.
15. **Signboards** - One signboard (6'X 4') must be erected at the start of the works and one at the end of the works clearly stating :

<p>DANGER</p> <p>PROJECT: POWERLINE CONSTRUCTION – [Description of project]</p> <p>CONTRACTOR:</p> <p>POWER CABLE CONSTRUCTION WORK.</p> <p>Driver please reduces speed. Pedestrians please use other footpath/side of road</p> <p>THANKS</p>

16. **Accident Reporting** – All accidents and incidents shall be reported immediately to EFL using approved forms available in the EFL Safety Plan Template, or equivalent.
17. **Project Updates** - Contractor shall meet with EFL Project Manager, Project Engineer and Project Supervisor on a weekly basis to discuss project progress and bottlenecks. These meetings shall be minuted for records, and circulated to the appropriate stakeholders.
18. **Tidiness** – The Contractor shall maintain the worksite in a neat and tidy condition.
19. **Transportation of material** – The Contractor shall transport all materials from Kinoya Stores to work site, EXCEPT concrete poles, which may be picked up from Humes Depot.
20. **Security** - Contractor shall be responsible for the safekeeping of all materials at work site, and will be required to pay for damage and/or loss.
21. **Damage to property** – The Contractor shall ensure that there is no damage to roadways, footpaths, drains, water-courses, properties and other services. The Contractor shall make good to the satisfaction to the owner any damage caused by the contractor.
22. **Portable signboards** - Portable signboards must be placed at 50m intervals.
23. **Traffic and Pedestrian Control** – The Contractor shall ensure that there is minimum disruption to the flow of traffic and pedestrian. EFL procedures on Traffic Control and

Pedestrian Control shall be diligently exercised.

24. **Worksite protection** - Bollards/cone must be placed at 10m intervals.
25. **Barricades** - Open trench/pole-hole is to be barricaded on a full-time basis by the Contractor.
26. **Jobsite Safety Assessment** - Contractor to carry out Jobsite Safety Assessment daily, and as and when required, and submit these to EFL on a weekly basis.
27. **Credit of surplus material** – The contractor shall transport and credit all unused materials to Kinoya Stores.
28. **Defects Rectification** – The contractor shall rectify all defects within two (2) days as per contract.
29. **Project completion** – The contractor shall complete work on time as per contract.
30. **Project progress** – If the Contractor fails to proceed with the works with reasonable diligence or suspends the works or refuses to comply with the reasonable direction from EFL by reason pf which the works are materially affected and any such default continues for a period of seven (7) days after the issue of written notice, EFL may itself call any other person to complete the works at te Contractor's risk and expense.
31. **Safe Work Procedure Training** - Contractor must have completed Distribution Safe Work Procedure training.

D : EFL REQUIREMENT

- EFL Project Supervisor shall obtain Road/footpath opening permits.
- EFL Project Engineer shall obtain clearance from Municipal Council, Telecom Fiji Ltd, Water Supply Department, and Sewerage Department.
- EFL's HSE Unit shall vet Safety Plan submitted by Contractor and approve after queries clarified by Contractor.
- EFL Project Engineer shall ensure that any EFL underground mains on the jobsite is clearly located, marked and identified to the Contractor.
- EFL Project Engineer shall submit to the Project Manager all necessary approval documentation from Municipal Council, Telecom Fiji Ltd, Water Supply Department and Sewerage Department. Upon receipt of these approvals, and the approved Safety Plan, the Project Manager shall issue an "Instruction to Commence Work" to the Contractor.
- EFL Project Supervisor and Project Engineer shall carry out regular site inspections to ensure compliance with HSE requirements, and submit Safety Visit Reports of the visit.
- EFL Project Supervisor and Project Engineer shall issue Non-Conformance Report if required, and follow up for verification of implementation of Action Items arising out of the Non-Conformance Report.

E : PAYMENT SCHEDULE

Payment shall be made as per payment schedule :

Phase	Description	Percentage payment
1	Ducting and Trenching	30%
2	Installation of cable	30% upon positive cable test results
3	Backfill	30%
4	Retention	10% to be released after 6 months pending zero defects.

Diagram 1: Trench arrangement for HV, MV, and FEA cables. Shows a cross-section with layers: FEA COMMUNICATION CABLE, MANDREL, SAND COVER, MV ELECTRICAL CABLE, HV ELECTRICAL CABLE, SPARE DUCTS (SEE NOTE 5), and SAND. Dimensions include 1000mm total width, 100mm spacing, and 100mm depth for the sand cover.

Diagram 2: Trench arrangement for HV, MV, and FEA cables with a different sand cover depth. Similar to Diagram 1, but with a 150mm sand cover depth.

Diagram 3: Trench arrangement for HV, MV, and FEA cables with a different sand cover depth. Similar to Diagram 1, but with a 150mm sand cover depth.

NOTES:

- NO OTHER SERVICES SHALL BE LAID ABOVE ELECTRICAL CABLE EXCEPT FOR CROSSINGS
- TELECOM CABLE TO ELECTRICAL CABLE = 450mm
- WATER PIPES TO ELECTRICAL CABLE = 1.5m
- GAS PIPE TO ELECTRICAL CABLE = 450mm
- ELECTRICAL CABLES SHALL BE BELOW ALL OTHER SERVICES AT CROSSINGS
- SPECIAL APPROVALS WILL BE REQUIRED TO LAY ELECTRICAL CABLES BELOW FOOTPATH
- SPARE DUCTS FOR FUTURE USE SHALL BE PLACED IN GROUND AT ROADWAY CROSSINGS & DRIVEWAY CROSSINGS

REV	DESCRIPTION	DATE	BY	CHKD	APPD	DESIGN	ELECTRICAL	CIVIL	MECHANICAL	PLUMBING	HEATING	AIR-CONDITIONING	ELEVATION	PAINT	FURNITURE	EQUIPMENT	OTHER
0	ORIGINAL ISSUE	19.11.14	OM														

FIJI ELECTRICITY AUTHORITY

HV & MV TRENCH ARRANGEMENT

DETAIL

DRAWING NUMBER

A3 04 E24 19

TENDER SUBMISSION CHECK LIST

The Bidders must ensure that the details and documentation mention below must be submitted as part of their tender Bid

Tender Number _____

Tender Name _____

1. Full Company / Business Name: _____

(Attach copy of Registration Certificate)

2. Director/Owner(s): _____

3. Postal Address: _____

4. Phone Contact: _____

5. Fax Number: _____

6. Email address: _____

7. Office Location: _____

8. TIN Number: _____

(Attach copy of the VAT/TIN Registration Certificate - Local Bidders Only (Mandatory))

9. FNPF Employer Registration Number: _____ **(For Local Bidders only) (Mandatory)**

10. **Provide a copy of Valid FNPF Compliance Certificate (Mandatory- Local Bidders only)**

11. **Provide a copy of Valid FRCS (Tax) Compliance Certificate (Mandatory Local Bidders only)**

12. Contact Person: _____

I declare that all the above information is correct.

Name: _____

Position: _____

Sign: _____

Submission of Tender

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 EFL Head Office, 2 Marlow Street, Suva, Fiji.

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

This tender closes at 4:00 p.m. (16.00hrs Fiji time) on Wednesday 24th October, 2018.

Each tender shall be sealed in an envelope with the envelope bearing only the following marking:

MR 374/2018

415V Underground Cable Installation at Tiri Place, Pacific Harbour Due to UG Cable Fault

The Secretary, Tender Committee
Energy Fiji Limited
Supply Chain Office
Private Mail Bag,
Suva

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

All late tenders, unmarked Envelopes and envelopes without bidder's name and address on the reverse on the envelope will be returned to the Tenderers unopened. (Bids via e-mail or fax will not be considered).

The bidders must ensure that their bid is inclusive of all Taxes payable under Fiji Income Tax Act and must have the most current Tax Compliance Certificate.

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

Bidders are requested to submit a:

- **Valid Tax Compliance Certificate**
- **FNPF Compliance Certificate**