

**SCOPE OF WORK**

**DETAILED SCOPE OF WORK FOR THE CONSTRUCTION OF COMMUNAL SHELTER IN**

**BULUKAT, MALAKAL, UPPER NILE STATE, SOUTH SUDAN.**

# Introduction

The Danish Refugee Council (DRC) is a humanitarian, non-governmental, non-profit organization founded in 1956 that works in more than 30 countries throughout the world. DRC fulfills its mandate by providing direct assistance to conflict-affected populations – refugees, internally displaced people (IDPs) and host communities in the conflict areas of the world; and by advocating on behalf of conflict-affected populations internationally, and in Denmark, on the basis of humanitarian principles and the Human Rights Declaration. For further information about our projects please visit our website [http://www.drc.dk](https://eur03.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.drc.dk%2F&data=05%7C01%7Cpeter.akot%40drc.ngo%7C111e59963b9e4f8e649b08da8128028e%7C2a212241899c4752bd3351eac3c582d5%7C0%7C0%7C637964306078864120%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=CJW8JCTr%2BPN7%2BaO2UzLbnxQVHryGGBjdYavPiSkcxEA%3D&reserved=0).

Danish Refugee Council South Sudan, in Malakal field office would like to invite eligible vendors to submit their proposal (s) in form of quotation, bill of quantity, and technical drawing respectively for **construction of communal shelters in Bulukat, Malakal, Upper Nile State.**

# General terms

* The prospective contractors are strongly encouraged to visit the project site in advance before submitting their quotations to familiarize themselves with ground conditions and the general Malakal area.
* The selected Contractor will have strong experience in developing and analyzing critical path scheduling, reinforcement work and concrete work, working in a volatile security environment and working on site with minimum access during rainy season.
* The contractor should execute works according to the method statement (comprises of the technique, sequence of activities, physical requirements) and plan for the completion of the structure in a safe environmental management plan and quality control measures for the successfully completion of the project.
* The contractor should employ engineering services and skills for all construction works.
* The contractor should verify that all measurements are as indicated on the approved plan, architectural drawings (as prepared by DRC).
* The contractor should notify DRC if there is any discrepancies immediately.
* The Contractor is responsible for the safety of the site.
* The contractor is responsible for keeping a clean and safe construction area at the end of each workday.
* The contractor is responsible for supplying all required materials, labor, equipment, and tools to perform all operations necessary for the building of structures specified by the contract drawings.
* The Contractor should ensure that construction works adhere to standard and quality as per DRC design and international building codes. It is the responsibility of the contractor to ensure Construction materials meet the requirements of the accepted and approved DRC standards. DRC staff will regularly monitor the construction work to ensure adherence to quality and specifications.
* The price quoted included labor and Materials cost required to deliver the objective. Any assistance required by the contractor from DRC is at DRC discretion. Such assistance if agreed might include a cost calculated based on DRC internal procedure.
* DRC will provide space on site for the contractor to build the storage room. Storage of construction materials, equipment and any machinery is the sole responsibility of the contractor and should be kept in an orderly way.
* The contractor must submit a construction schedule and the sequence of work with the bid.
* Once contracted, no change to the schedule shall be authorized other than in force majeure as described in the contract.
* The contractor should ensure that the list of professional staff and subcontractors with his bid remains the same.
* The site manager should have relevant experience and be organized to ensure maximum efficiency of work.
* The construction work is to be conducted at the location as determined by DRC.
* The construction should be completed in the scheduled period of time as indicated in the bid.
* The contractor should provide photography of different construction phases on a regular basis for DRC site engineers.
* Any changes or modifications made to the contractor’s design or works that will have an implication on the overall cost of the project must be approved by DRC in writing. DRC will not be liable to any additional costs that arise as a result of the contractor misinterpretation of the drawings or the BoQs or any verbal instructions to the contractor by their DRC or UNHCR or government representatives.

# Technical specification

All work shall be compliant with the descriptions in the statement of work and Bills of Quantity to meet the following main completion status.

1. **Site Clearance, Excavation and Sub-Structure:**

* Clear the site of shrubs and all debris; remove from site as directed by the DRC Engineer. All construction waste/debris must be deposited at a location specified by the local authorities.
* Excavate 35cmx35cmX80cm pit holes for vertical post erecting 80cm depth. Excavate foundation trench to a minimum of 80cm depth by 50cm wide.
* Supply, lay and joint 300mm thick burnt clay bricks walling bedded and jointed with cement and sand (1:3) mortar as described including 20 SWG hoop iron double strand every two courses built into joint of brick walling as plinth walls and DPC placed to reduce dampness and capillarity effects.
* Provide and lay 50mm concrete 1:5:10 blinding below strip foundations
* Provide and lay 1:4:8 mass concrete fill 35cmx35cmX80cm for vertical post erecting 80cm depth
* Provide 150 mm thick bed of approved imported Murram, well compacted spread, leveled and consolidated in two layers not exceeding 400 mm (share sample with DRC Engineer prior to supply)
* Provide and lay floor slab of 100mm thick RCC concrete of mix 1:2:4 complete with anti-termite treatment, A142 BRC and DPM.
* Provide and lay 40mm thick cement sand screed finished with steel float complete with 5mm thick cement surface seal.
* Concrete slab must receive cement sand ratio Screeding and achieve a smooth final cement slurry “Nirro” using a steel float to ensure a smooth floor to DRC Engineer’s satisfaction.

1. **Walling**

* Framework and Cladding
* The following structural timber and walling includes all necessary cutting, hoisting, nails, washers, hoop iron, joining, painting and fixing in position:
* Provide and fix 80mmx40mmx3mm steel square section (RHS) steel columns posts
* Supply and cast 100mm x 50mm hard wood timber wood 4meter columns posts
* Cast 10cm diameter X4m length locally available wood posts/columns to reinforce walling and partition
* Fix 50mmx75mmx4m Timber wood horizontal bracing equivalent walling for fixing wall cladding iron sheet.
* Provide and secure 28 guage EGA roofing sheets on the well tensioned internal partition and external walling
* Supply welded mesh material and fix approved mosquito Mesh wire as shown on the drawing

1. **Roofing**

* Use approved well-seasoned (straight, optimum water content, no severe defects) of recommended length, joining the timber must be tapered or zigzag to ensure strong connection using hoop iron of at least 600mm span.
* Treat all the timber surfaces with approved anti-termite treatment.
* Supply and install uniform color of roofing washers to ensure homogeneity and it must be **BLUE** (same as iron sheets).
* Observe a recommended standard side lapping of at least 150mm and end laps of 300mm where necessary.
* Must provide a matching ridge cap with the type, gauge and color of the roofing sheets.
* Provide treated sawn softwood timber complete with all necessary cutting to length, nails, joints, connections, paintings, hoisting and fixing in position:
* Supply and fix 100mm X 75mm Wall Plate
* Supply and fix 75mm X 50 mm purlins
* The following in 7 No. compete Trusses in treated softwood size 9600 mm X 1200 mm high, overall spanning 1500 mm fixed approximately 3 m above ground level. Supply and fix, cost to include all necessary works of 100X50 mm struts and ties, 100 X 50 mm rafters and 150 X 50 mm Tie beams
* Provide and fix 225 X 25 mm fascia board
* Supply 28-gauge EGA roofing sheets fixed on timber purlins to slope not exceeding 20 degrees from horizontal and in accordance withdrawing. Cost includes all necessary fitting rope and roofing nail, Coping with Matching Ridge cap.

1. **Doors and Windows**

* Supply materials and fabricate standard doors as specified in the detailed BoQ with all accessories like stainless steel hinge, door latch and tower bolt.
* Fabricate and Fix Iron sheet doors Complete with 50X70mm Timber wood Frame & Shutters, size 2000 X 900 mm.
* Fabricate and fix Windows complete with timber wood Frame and Shutters size 1000 mm X 1000 mm
* The timber to be used on this must be well seasoned with minimal defect as approved by DRC Engineer.

# Site cleaning

At the end of construction works, the contractor should ensure that the site is clean and free of any hazard. All excess construction materials on site are to be removed and site left neat and tidy after completion of the works.

# Term of Payment

* Payment shall be made in two installments after completion of 50% of the work and after the final completion of the works as may be certified by DRC’s engineer/focal person.
* Payment shall be through the bank account: the contractor shall provide the account details.
* The final payment shall be done after a joint visit and approval by UNHCR and government representative and a certificate of completion issued.