



**Republic of Sierra Leone
Ministry of Fisheries and Marine Resources
Sierra Leone**

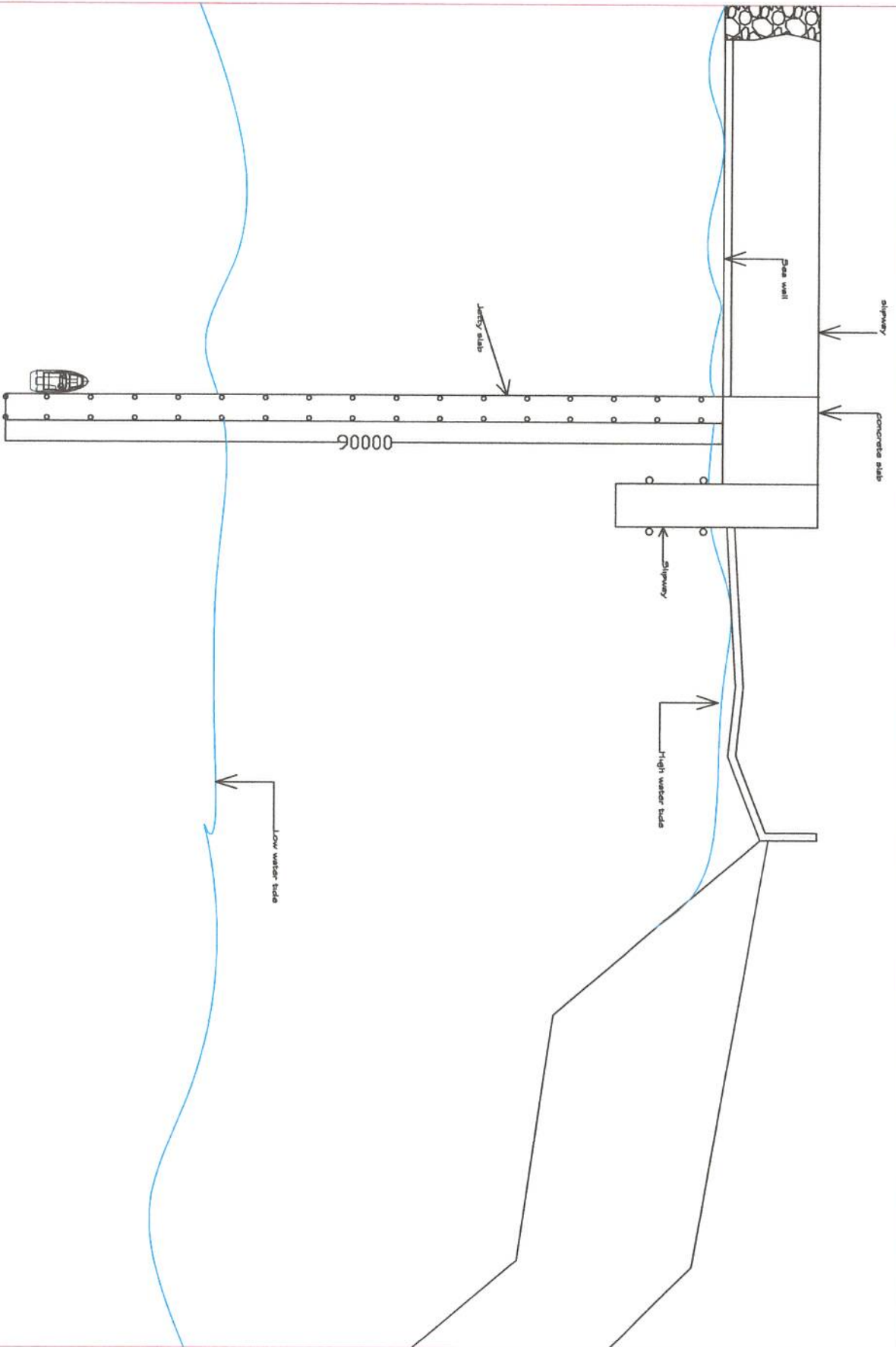


**United Nation Development Program
Wilberforce
Freetown, Sierra Leone**

DRAWINGS

**Submitted by
UNDP'S Independent Consultant Civil Engineer
Freetown
Sierra Leone**

July 2019



NOTE

This drawing should not be used for construction without the approval of the Engineer immediately.

Rev

Design Consultant

ING SAIRI MBAYO

Drawn By

ING ABOUN R. WILSON

Project Date JULY 20

PROPOSED CONSTRUCTIC
OF JETTY

Location

SHINCE
KASOROH CHIRPON
MOTYARA DISTRICT

Client

UNDP

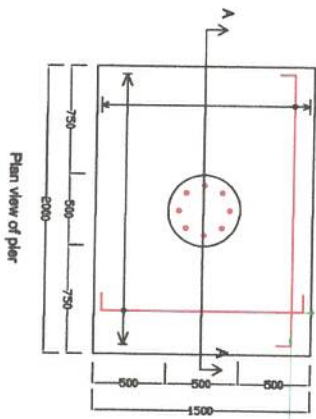
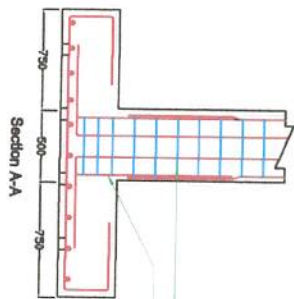
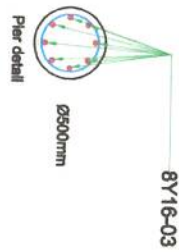
Drawing Description

Scale 1 : 100

Standard Plan Type

Drawing Number Rev

001







































9Y16-01@200mm c/c
8Y16-02@200mm c/c

8Y16-02@200mm c/c

Y12-04@200mm c/c
8Y16-03

8Y16-03

BAY BROWN DETAILS									
POSITION	DIMENSION	MATERIAL		LAYER THICKNESS	BAY TOTAL	BAY TOTAL	QUANTITY		
		IN THE BAY	OF BAY					mm	mm
01	10	0	42	200	80000		1.75		
02	10	0	42	200	80000		1.25		
03	10	0	42	200	70000		1.4		
04	12	20	42	200	100000		2.25		
05	10	0	42	200	80000		1.44		
06	12	0	42	200	100000		1.4		
07	10	0	42	200	80000		1.7		
08	12	0	42	200	100000		1.4		
09	10	0	42	200	80000		1.75		
10	10	0	42	200	80000		1.75		
11	10	0	42	200	80000		1.75		
12	10	0	42	200	80000		1.75		
13	10	0	42	200	80000		1.75		
14	10	0	42	200	80000		1.75		
15	10	0	42	200	80000		1.75		
16	10	0	42	200	80000		1.75		
17	10	0	42	200	80000		1.75		
18	10	0	42	200	80000		1.75		
19	10	0	42	200	80000		1.75		
20	10	0	42	200	80000		1.75		
21	10	0	42	200	80000		1.75		
22	10	0	42	200	80000		1.75		
23	10	0	42	200	80000		1.75		
24	10	0	42	200	80000		1.75		
25	10	0	42	200	80000		1.75		
26	10	0	42	200	80000		1.75		
27	10	0	42	200	80000		1.7		
28	12	0	42	200	100000		1.4		
29	10	0	42	200	80000		1.75		
30	10	0	42	200	80000		1.75		
31	10	0	42	200	80000		1.75		
32	10	0	42	200	80000		1.75		
33	10	0	42	200	80000		1.75		
34	10	0	42	200	80000		1.75		
35	10	0	42	200	80000		1.75		
36	10	0	42	200	80000		1.75		
3							1.4		

NOTE

This drawings should not be figured dimensions only may used and dimensions should verified on site and any discrepancy reported to the Engineer immediately

Rev

SHENGE
KAGBOROH CHIEFDOM
MOYAMBA DISTRICT

Client:

UNDP

Drawing Discription

Scale : 1 : 100

Standard Plan Type

Drawing Number	Revision

81	
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Construction of Fishermen Reinforced Concrete landing Jetty at Shenge (3m wide x 90m long) Moyamba District

Bill of Quantities

Item No	Description	Units	Quantity	Unit Rate (Le)	Amount (Le)
1.00	PRELIMINARIES				
1.01	Mobilization of all Plants and equipment to start work	Lump Sum	1		
1.02	Provision of Costs incurred in obtaining all bonds, insurances for all plants and equipment, contractor's staff and other third parties	Lump Sum	1		
1.03	Provision of Signboard (No 1: Size, 1200 mm wide x 1500mm high	Lump Sum	1		
1.04	Provision of progress photographs , both underwater and surface photos) at the end of every two working weeks	Lump Sum	1		
1.05	Demobilization: Removal of all equipment and other resources belonging to the contractor including cleaning the site completely	Lump Sum	1		
	Preliminaries carried to summary				
2.00	SITE PREPARATION AND SETTING UP				
2.01	Underwater survey and setting out works	lump sum	1		
2.02	Demolish the old jetty and use the broken concrete to strenghten the foundation of the new jetty	lump sum	1		
2.03	Setting up Contractor's work yards and temporary site office	Lump Sum	1		
	Site Preparation and setting up carried to summary				

Construction of Fishermen Reinforced Concrete landing Jetty at Shenge (3m wide x 90m long) Moyamba District

Bill of Quantities

Item No	Description	Units	Quantity	Unit Rate (Le)	Amount (Le)
3.00	JETTY'S SUBSTRUCTURE WORKS 2.0m X 1.5m x 1.0m deep reinforced concrete (1:2:4 mix) caisson 75mm thick				
3.01	Formwork for construction the rectangular caisson	m ²	555		
3.02	Reinforcement for caissons with 6mm mild steel mesh	tonne	1.65		
3.03	Precast concrete caisson in 1:2:4: concrete mix aggregate 3-8mm and concrere seals . Prescribed mix 40N/mm ² grade, cement to BS 12, 2000mm , 75mm thick and 1000mm high	m ³	24		
3.04	Sinking caissons below seabed to a depth not less than 2m	m	76		
3.05	Excavating soft material within the depth range of 2m below seabed	m ³	473		
3.06	Extra over excavation in hard materials within the depth of 2m	m ³	77		
3.07	Filling in of caissons with 30 - 40 mm diamter crushed rock bedding and compacting to the depth of 400mm	m ³	50		
3.08	Cast in-situ concrete in mormal mix 1:2:4 -12mm aggregates . Thickness of concrete 500mm	m ³	57		
3.09	16mm Ø high yield reinforced bars in caissons as starter bars to receive pile rebars	tonne	1.8		
3.1	12mm Ø high yield bars as stirrups	tonne	0.7		
	Subtotal Jetty substructure works B/D				

Construction of Fishermen Reinforced Concrete landing Jetty at Shenge (3m wide x 90m long) Moyamba District

Bill of Quantities

Item No	Description	Units	Quantity	Unit Rate (Le)	Amount (Le)
	Subtotal of jetty substructure works B/F				-
3.10	REINFORCED CONCRETE WORKS ON PIERS (Deck Support) 500mmØ, 75mm thick precast reinforced concrete caisson				
3.11	Formwork for constructing the caissons	m ²	500		
3.12	Reinforcement for caissons with 6mm mild steel mesh	tonne	0.6		
3.13	Precast concrete caisson in 1:2:4: concrete mix aggregate 3-8mm and concrete seals . Prescribed mix 40N/mm ² grade, cement to BS 12, 500mmØ 75mm thick and 1000mm high	m ³	23		
3.14	Installation of (500mmØ , 75mm thick caisson from seabed to the underside of the jetty beams	m	68		
3.15	Reinforced concrete fill, (1:2:4 mix -12mm aggregates) in 500mmØ , 75mm thick caisson	m ³	32		
3.16	16mm Ø high yield steel bars in caisson with pier starter bars	tonne	3		
3.17	12mm Ø high yield bars as stirrups	tonne	1.2		
	Total jetty substructure works carried to summary				
4.00	JETTY SUPERSTRUCTURE WORKS Reinforced concrete cast in-situ concrete 1:2:4 mix 10mm aggregates, cement to BS 12				
4.01	Walkway slab to Jetty head	m ³	65		
4.02	Edge Beams	m ³	32		
4.03	Intermediate beams	m ³	9		
4.04	Rectangular cross-beams at 10 m interval	m ³	5		
	Jetty Superstructure works B/D				

Construction of Fishermen Reinforced Concrete landing Jetty at Shenge (3m wide x 90m long) Moyamba District

Bill of Quantities

Item No	Description	Units	Quantity	Unit Rate (Le)	Amount (Le)
	Jetty Superstructure works B/f				-
	High yield steel reinforcement bent straight or hook complete with all spaces , distance blocks and bracing wire to the following				
4.05	12mm Ø top steel bar in Walkway slab to Jetty head	tonne	2.3		
4.06	16mm Ø bottom steel bars in Walkway slab to jetty head	tonne	3.5		
4.07	16mm Ø steel bars in Edge beams	tonne	3.8		
4.08	12mm Ø steel bars as stirrups/links in Edge beams	tonne	2.5		
4.09	16mm Ø steel bars in intermediate beams	tonne	0.9		
4.10	16mm Ø steel bars in cross beams at 10m interval	tonne	0.4		
4.11	12mm Ø steel bars as stirrups/links intermediate and Cross-beams at 10 m interval	tonne	1.2		
	Formwork to provide Class F3 surface finish to the following				
4.12	Walkway slab to Jetty head	m ²	365		
4.13	Edge beams	m ²	208		
4.14	intermediate beams and Cross-beams at 10m interval	m ²	108		
	FENDERING SYSTEMS				
4.15	Provide and install 250mm x 250mm x 6mm equal structural steel I-section complying with the requirement of BS EN 10025 attached horizontally to piers(Piles) along the jetty faces to receive vertical energy-aborbing timber fenders - unit weight 7.0 Kg/m	m	90		
4.16	Provide and install energy-absorbing hardwood timber (200mm x 200mm) fenders fixed securely to horizontal receiving steel I-beams by gavanized steel bolts and nuts	m	90		
4.17	Provide 100mm thick synthetic rubber (from old truck tyres or conveyor belts) and fix on the berthing inspact faces of timber fender with bolted on the jetty piers	m	90		
	Jetty Superstructure Works B/D				

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Bill of Quantities

Item No	Description	Units	Quantity	Unit Rate (Le)	Amount (Le)
	Jetty Superstructure works B/F				-
	BOLLARDS FOR MOORING				
4.18	Provide Universal Column (152x152x6.8) length 1600mm to be bedded into the last pier under the slab, the edge beam and the slab and projected 400mm above the slab level to be used for mooring	no	35		
4.19	Provide anti-rust paint and "black tar" both to be rubbed on the Universal column before installation for mooring and on the I-beam fenders	m ²	132		
	NAVIGATION LIGHT SYSTEM ON JETTY STRUCTURE				
4.18	Provide six solar powered navigation lights with all the accessories (solar panels, batteries, standing galvanized pipes and light bulbs) on the jetty structure, two at the end, two in the middle and two at the beginning of the jetty structure	No	5		
	Jetty Superstructure Works carried to summary				

Construction of Fishermen Reinforced Concrete landing Jetty at Shenge (3m wide x 90m long) Moyamba District

Bill of Quantities

Item No	Description	Units	Quantity	Unit Rate (Le)	Amount (Le)
	SUMMARY				
1	Preliminaries				
2	Site Preparation and Setting up				
3	Jetty Substructure works				
4	Jetty superstructure				
	Subtotal				
	Contingency 10%				
	TOTAL CONSTRUCTION COST				

In words:

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