

TRANSNET SOC LTD

TENDER No. TNPA 2021/11/0007/RFP
DESCRIPTION OF THE SERVICES: UPGRADE OF LIGHTING IN THE PORT OF DURBAN

ADDENDUM NO. 07

DATED 07 April 2022

The following information is furnished in addition to, in amplification and substitution of, matters contained in the tender documents issued in respect of the above-mentioned work.

1. Part C2: Pricing Data

C2.2 Bill of Quantities

SECTIOION NO. 2: ELECTRICAL WORK - BILL NO 3: GENERAL LIGHTING AND POWER

- 1. CATO CREEK YARD (ZONE 2)
 - Item 4: Delete the description under item 4 and replace with:
 - Supply, delivery and installation of a similar or equal approved to CCG IP utility box with cable glands. (3-way, box size 1, 20mm)
 - Item 5: Delete the description under item 5 and replace with:
 - Supply, delivery and installation of a similar or equal approved to CCG IP utility box with cable glands. (2-way, box size 1, 25mm)
 - Item 41: Delete the description under item 41 and replace with:
 - 1 x 25mm dia core, drilled through 230mm thick brick wall for cable exiting the building.
 - Item 42: Delete item 42 entirely without replacement
 - Item 42:—Supply, delivery and installation of stainless-steel conduit (cable wireway) in tunnel, complete with stainless steel fixture

NOTE: WHEN UPLOADING THE TENDER USING THE PORTAL THE FOLLOWING NUMBER IS TO BE USED TO UPLOAD THE DOCUMENTATION - TENDER REFERENCE NUMBER: TNPA/2022/03/0141/RFP

FORM: PRO-FAT-0325 Rev01



	FROM:
	
	DATE:
TO:	Transnet National Ports Authority 237 Mahatma Gandhi Road
	Durban, 4001
	(Attention Ms M Ngwenya – Email: <u>Mphoyakaomphile.Ngwenya@transnet.net</u>)
Dear S	Sirs/ Madam
	PER No. TNPA 2021/11/0007/RFP RIPTION OF THE SERVICES: UPGRADE OF LIGHTING IN THE PORT OF DURBAN
Receip	ot of Addendum No. 07 dated 07 April 2022 is hereby acknowledged.
Kind r	egards
TEND	DERER
12.12	
NOTE tender	: This acknowledgement must be signed and returned to this office on or before closing date of r.
TNPA	2021/11/0007/RFP

FORM: PRO-FAT-0325 Rev01



ANNEXURE A: UPDATED DOCUMENTS

FORM: PRO-FAT-0325 Rev01

SECTION NO. 1 : PRELIMINARIES BILL NO.1 : PRELIMINARIES BILL NO.1 : PRELIMINARIES Preambles Fixed preliminary items will be valuated and paid on a proven cost basis. Time related preliminary items may relate to fixed preliminary items and items not listed and expressed as a sum and will be pro-rated against value of construction items completed. Fixed Preliminary Items Contractual requirements, sureties & insurance Sum Facilities for the Contractor a) Offices & storage sheds b) Workshops c) Ablution & latrine facilities f) Tools & equipment g) Water supplies, electric power & communications f) Dealing with water & dust f) Access g) Plant Other fixed-charge obligations Health and safety Environmental Sum Setting out Security Dealing with traffic Covid-19 compliance As-built surveys Sum Time related Preliminary Items Time related obligations Sum Time related Deligations Sum	Description	Unit	Quantity	Rate	Amount
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I) Access j) Plant Other fixed-charge obligations Health and safety Environmental Setting out Security Dealing with traffic Covid-19 compliance As-built surveys Removal of site establishment Time Related Preliminary Items	g) Water supplies, electric power & communications	Sum			
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Removal of site establishment Time Related Preliminary Items	Covid-19 compliance	Sum			
Time Related Preliminary Items	As-built surveys	Sum			
	Removal of site establishment	Sum			
Time related obligations	Time Related Preliminary Items				
	Time related obligations	Sum			
	Carried to Final Summary			R	

Description	Unit	Quantity	Rate	Amoun
SECTION NO. 2 : ELECTRICAL WORK BILL NO. 1: ALTERATIONS, ETC.				
PREAMBLES				
The Contractor is Referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill				
SUPPLEMENTARY PREAMBLES				
<u>View Site</u>				
Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done. No claim for any variations of the contract sum in respect of the nature and extent of the work will be entertained and will be deemed to be included in the rates.				
Painting				
Paints shall be applied under suitable conditions of light, temperature, humidity and ventilation. At time of over-coating, the painted surface shall be clean, dry, sound and free of misses and defective paint. Each coat of paint shall be applied as a continuous, even film of uniform thickness. Ensure priming and painting occurs timeously after sand blasting and cleaning to prevent re-corrosioning of the area, given the highly corrosive environment.				
Replacement of Base Plates				
Remove the mast from the base. Remove the base plate from the mast using an angle grinder or a cut-off disc. Clean the rough edges of the mast using an angle grinder or a sanding disk to level the end of the mast. Re-weld new base plate onto the existing mast. Clean the surface using a brush or air blower to ensure the area is sound, dry and free from dust, grease and other contamination. Prime the surface using a primer similar to Transnet corrosion protection specification, document HE9. Apply two coats covering the primer surface to match existing colour				
Replacement of Concrete Base and Bolts				
Remove the mast from the base. Demolish existing base and dispose of waist including existing bolts. Reconstruct new base to match specifications. Re-install existing mast pole onto new concrete base.				

Item	Description	Unit	Quantity	Rate	Amount
	PAINT TO EXISTING HIGH MAST LIGHTS, BASE PLATES, ETC.				
	Sand blast the affected areas to remove all corrosion to a radius of 20mm beyond corroded area. Clean the surface using a brush or air blower to ensure the area is sound, dry and free from dust, grease and other contamination. Prime the surface using a primer as per Transnet corrosion protection specification, document HE9. Apply two coats covering the primer surface to match existing colour.				
1	Spot priming and painting to primed areas in patches	m²	120		
	CORROSION PROTECTION HML BOLTS, ETC.				
	Bolts to be cleaned by wire brushing with hand tool or power tool, primed with a suitable primer an sprayed with an approved protective epoxy paint.				
2	Corrosion protection to complete cluster of bolts to HML	No.	25		
	REPLACEMENT OF BASE PLATES				
	Take out and remove existing base plate, including preparing existing surface and welding on new base plate, corrosion protection and protective paint to base plate to match existing				
3	To existing HML	No.	6		
	REPLACEMENT OF BOLTS				
	Take out and remove rusted and damaged bolts and replace with new, including, wire brushing surfaces, cleaning, primer and protective painting to match existing surfaces				
4	New bolts to HML bases	No.	130		
	CONCRETE SPALLING REPAIRS Repairs to reinforced concrete consisting of saw cutting the perimeter of the patch approx. 10mm deep and further removal of defective concrete behind corroding reinforcing steel, abrasive grit blast and rub down reinforcing (or similar equivalent approved method). Apply 'Sika Top Armatec 110' equal or similar approved anti-corrosive coating system to reinforcement and 'Sika 610', equal or similar approved bonding slurry to pre-wetted concrete surfaces				
5	100mm x 50mm deep average on concrete bases Repairs to concrete consisting of saw cutting the perimeter of the patch and removal of defective concrete, brush out and clean existing cracks. Apply 'Sika 610' equal or similar approved bonding slurry to pre-wetted concrete surfaces.	m	50		
6	20mm x 20mm deep average on concrete bases	m	20		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward Apply 'Sika Monotop 615HB, equal or similar approved' structural repair mortar hand placed to primed surfaces in strict				
	accordance with the manufacturer's instructions				
7	100mm x 100mm x 50mm Deep on concrete bases	No	30		
8	20mm x 20mm x 20mm Deep on concrete bases	No.	10		
	Apply 'Sika Ferrogard 903 equal or silar approved' migrating corrosion inhibitor to all concrete surfaces including high pressure washing all surfaces between applications				
9	To concrete slab not exceeding 300mm girth	m	50		
	Saw cut existing surfaces				
	50mm- 80mm Pre-mix				
10	Zone 3 (General Street Lighting)	m	20		
11	Zone 4 (Dry Dock)	m	240		
12	Zone 4 (I & J Tug Jetty and Street Lighting)	m	320		
13	Zone 6 (Port Perimeter(Cutler Wall- Cutler Service Formosa/Cosway Road	m	60		
14	Zone 6 (Abadan Yard)	m	70		
15	Zone 6 Umgababa Yard	m	50		
16	Zone 6 (Berths 1, 2, 3, 4, 5, 6, 7, 8 and 10)	m	58		
17	Zone 6 (Berth 9)	m	90		
	50mm- 100mm Conrete surface				
18	Zone 4 (I & J TUG JETTY AND STREET LIGHTING)	m	120		
19	Zone 6 (Berths 1, 2, 3, 4, 5, 6, 7, 8 and 10)	m	510		
	Breaking up 50-80mm thick premix including removal etc.				
20	50-80mm Thick premix in roadway	m²	544		
	Breaking up and removing un-reinforced concrete				
21	50mm- 100mm Thick unreinforced concrete	m²	315		
	MAKING GOOD OF FINISHES, ETC.				
22	Making good 100mm thick unreinforced to be casted in panels	m²	544		
23	Making good 50-80mm thick premix including any surface preparation, coating, etc.	m²	315		
24	Prime coat to base	m²	315		
25	Tack coat asphalt base	m²	315		
	Carried to Final Summary			R	

SECTION NO. 2 : ELECTRICAL WORK BILL NO. 1: Alterations to Existing Power Supply PREAMBLES The Contractor is Referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill SUPPLEMENTARY PREAMBLES View site Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained Site All requested material to be returned to TNPA deport are to be delivered to 1 Kuwait Road, Bayhead. General The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the site supervisor. The contractor shall provide his own winch and tools for lowering of lights. ALTERATIONS TO EXISTING POWER SUPPLY CATO CREEK YAPD (2) 1 Supply, delivery and install a 20A MCB three pole circuit breaker. The circuit treaker shall be installed into the existing low voltage panel of Stanger Street Substation as per drawing 2127737-1-100-E-LA-002-02-01 2 Allowance for removing existing LED luminaires on Cato Creek West Yard and installing on existing masts on West Yard. Luminaires shall be cleaned and tested. 3 Allowance for removing existing luminaires on Cato Creek West Yard and delivery to TNPA depot.	Item	Description	Unit	Quantity	Rate	Amount
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West Yard and delivery to TNPA depot.	2	East Yard and installing on existing masts on West Yard.	No	48		
Carried to Forward R	3		sum	1		
Carried to Forward R						
		Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	GENERAL STREET LIGHTING (Zone 3				
4	Supply, delivery and install a 30A MCB circuit breaker in the existing low voltage switchboard of the existing kiosk. These circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127731-1-000-E-LA-0003-03.	No.	1		
	FRESH PRODUCE (Zone 3)				
5	Allowance for removal of existing light fittings from existing poles and delivery to TNPA depot.	No	18		
	OTB (ZONE 3)				
6	Allowance for removal of existing light fittings from existing poles and delivery to TNPA depot.	No	64		
	DRY DOCK (Zone 4)				
7	Modification to existing LV Panel: Supply and installation of a 30A 6kA 3phase circuit breaker, photocell and contactor, Inclusive of all terminations and associated modification to DB - F workshop 24.	No	1		
	MAYDON WHARF YARD (Zone 4)				
8	Allowance for removal of existing light fittings from existing highmasts and delivery to TNPA depot.	No	156		
	I & J TUG JETTY AND STREET LIGHTING (Zone 4)				
9	Modification to existing LV Panel: Supply and installation of a 16A 6kA 1phase circuit breaker, photocell and contactor, Inclusive of all terminations and associated modification to DB -	No	1		
10	Removal of luminaires on existing 9m street poles and delivery to TNPA.	No	19		
	MANGANESE YARD (Zone 4)				
11	Allowance for removal of existing light fittings from existing highmast and delivery to TNPA depot as per drawing no: 2127731-1-000-E-LA-0004-05.	No	10		
	KINGS REST YARD (Zone 5)				
12	Allowance for removal of existing light fittings from existing highmasts and delivery to TNPA depot as per drawing no.: 2127731-1-000-E-LA-0005-05.	No	240		
13	Relocation of existing 30m High Mast	No	1		
	FYNNLANDS YARD LIGHTING (Zone 5)				
14	Allowance for removal of existing light fittings from existing highmasts and delivery to TNPA depot.	No	116		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward LANGEBERG ROAD (Zone 5)			R	
15	Allowance for removal of existing light fittings from existing high masts and delivery to TNPA depot.	No.	53		
	BAYHEAD ROAD (Zone5)				
16	Allowance for removal of existing light fittings from existing 9m street light poles and delivery to TNPA depot.	No	120		
17	Removal and dismantling of damaged 9m streetlight poles and delivery to TNPA depot.	No.	6		
	AMBROSE PARK ROAD (Zone 5)				
18	Allowance for removal and packaging of existing LED luminaries and and delivery to TNPA depot.	No.	27		
	IRAN ROAD (Zone 5)				
	Road Lighting				
19	Allowance for removal of all luminaires inside Cutler wall (adjacent to Iran road) and the packaging of existing LED luminaries and delivery to TNPA depot.	No.	50		
	BAYHEAD ROAD RAIL TRACK (Zone 5)				
	Track Lighting				
20	Allowance for the removal of all luminaires and delivery to TNPA depot.	No.	29		
	SHARKMESHER ROAD (Zone 5)				
21	Allowance for the removal of all luminaires and delivery to TNPA depot.	No.	10		
	PORT PERIMETER(CUTLER WALL)- CUTLER SERVICE FORMOSA/COSWAY ROAD (Zone 6)				
	Cutler Services Road				
22	Supply, delivery and installation of a 32A three phase circuit breakers in the existing low voltage switchboard of the existing kiosk. These circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127731-1-000-E-LA-0006-06.	No.	1		
	Formosa Road				
	Street Lighting				
23	Uninstall existing luminaires and spigots for the existing 9m poles in Formosa road and delivery to TNPA depot.	No.	8		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
24	Removal of existing concrete street light pole as illustrated on drawing 2127731-1-000-E-LA-0006-05 and delivery to TNPA depot.	No.	1		
	Celebes Road				
25	Uninstall existing luminaires and spigots from the existing 9m poles in Celebes road and delivery to TNPA depot.	No.	8		
	Abadan Yard (Zone 6)				
26	Supply, delivery and installation of a 25A three phase circuit breakers in the existing low voltage switchboard of the existing Fynnlands generator substation. These circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127731-1-000-E-LA-0006-04	No.	1		
27	Supply, delivery and installation of a 30A three phase circuit breakers in the existing low voltage switchboard of the existing Cutler minisub 9. These circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127731-1-000-E-LA-0006-04	No.	1		
	Umgababa Yard (Zone 6)				
28	Supply, delivery and installation of a 20A, three phase circuit breaker in the existing low voltage switchboard of the existing CFI substation. The circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127731-1-000-E-LA-0006-03	No.	2		
	BERTHS 1, 2, 3, 4, 5, 6, 7, 8 and 10 (Zone 6)				
31	Supply, delivery and installation of a 63A three phase circuit breaker in the existing low voltage switchboard of the existing CFI substation & Fynnlands Generator Substation. This circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127737-1-000-E-LA-0006-08,	No.	1		
32	Supply, delivery and installation of a 20A three phase circuit breaker in the existing low voltage switchboard of the existing CFI substation. This circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127737-1-000-E-LA-0006-08.	No.	1		
33	Supply, delivery and installation of a 40A three phase circuit breaker in the existing low voltage switchboard of the existing Berth 6 DB. These circuit breakers shall be used to supply the lighting circuits shown in drawing no:2127737-1-000-E-LA-0006-10, 2127737-1-000-E-LA-0006-11.	No.	2		
34	Supply, delivery and installation of a 63A three phase circuit breaker in the existing low voltage switchboard of the existing TNPA switch room. These circuit breakers shall be used to supply the lighting circuits shown in drawing no: , 2127737-1-000-E-LA-0006-11	No.	1		
	Carried to Forward			R	
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-	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
35	Allowance for removal of existing light fittings from the existing highmast in Berth 1 and delivery to TNPA depot.	No.	7		
	Berth 9 (Zone 6)				
36	Supply, delivery and installation of a 40A three phase circuit breakers in the existing low voltage switchboard of the existing minisub. These circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127731-1-000-E-LA-0006-08	No.	1		
37	Removal of the existing 9m street light poles and deliver them to TNPA depot	No	6		
38	Uninstall existing luminaires and spigots from the existing 9m poles delivery to TNPA depot.	No	10		
	Wharfside Street Lighting (Zone 6)				
39	Uninstall existing luminaires and spigots from the existing 9m poles delivery to TNPA depot.	No.	8		
	SOUTH PIER SERVICE ROAD (Zone 7)				
40	Supply, delivery and installation of a 32A three phase circuit breaker in the existing low voltage switchboard of the existing Main DB South Pier substation. These circuit breaker shall be used to supply the lighting circuit shown in drawing no: 2127731-1-000-E-LA-0007-01	No.	1		
	Carried to Final Summary			R	

Item	Description	Unit	Quantity	Rate	Amount
	SECTION NO. 2 : ELECTRICAL WORK BILL NO. 2: Low Voltage Cabling/Termination/Cable				
	<u>Support</u>				
	PREAMBLES				
	The Contractor is Referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill				
	SUPPLEMENTARY PREAMBLES				
	<u>Light fittings</u>				
	Rates for light fittings are to include for hanging, fixing and connecting and for lamp holders and fluorescent tubes and lamps of the type and wattage described				
	Low Voltage Cabling				
	CATO CREEK YARD (Zone 2)				
1	Supply, delivery and Installation of 10mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	143		
2	Supply, delivery and Installation of 2.5mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC	m	180		
3	Supply, delivery and installation of 110mm Ø PVC leave (sleeve shall be concrete encased throughout the length)	m	180		
4	Supply, delivery and installation of a similar or equal approved to CCG IP68 utility boxes with cable glands. (3-way)	No.	4		
	Supply, delivery and installation of a similar or equal approved to CCG IP68 utility boxes with cable glands. (3-way, box size 1, 20mm)	No.	1		
5	Supply, delivery and installation of a similar or equal approved to CCG IP68 utility boxes with cable glands. (2-way)	No.	4		
	Supply, delivery and installation of a similar or equal approved to CCG IP68 utility boxes with cable glands. (2-way, box size 2, 25mm)	No.	1		
6	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per the trenching detail showed on drawing 2127737-1-000-E-LA-0002-01 and the TPD-003-CABLESPEC.	m³	64		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
7	150mm thick layers Carried to Forward	m³	11	R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
8	150mm thick layers	m³	11		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
9	150mm thick layers	m³	11		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
10	150mm thick layers	m³	11		
11	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	74		
12	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	10		
	Tug Jetty (Zone 3)				
13	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC Copper cable.	m	270		
14	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per the trenching detail showed on drawing 2127737-1-000-E-LA-0002-01 and the TPD-003-CABLESPEC.	m³	64		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
15	150mm thick layers	m³	12		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
16	150mm thick layers	m³	12		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
17	150mm thick layers	m³	12		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
18	150mm thick layers	m³	12		
19	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	74		
20	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	10		
	General Street Lighting (Zone 3)				
21	Supply, delivery and installation of 6mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC Copper cable.	m	450		
22	Supply, delivery and installation of 2.5mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC Copper cable.	m	280		
23	Supply, delivery and installation of 70mmØ corruguard PVC sleeve.	m	90		
24	Supply, delivery and installation of 110mmØ (HDPE) pipe by means of horizontal directional drilling (HDPR under rail track	m	60		
25	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches	m³	70		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
26	150mm thick layers	m³	12		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
27	150mm thick layers	m³	12		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
28	150mm thick layers	m³	12		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
29	150mm thick layers	m³	12		
30	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	25		
31	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	14		
	Dry Dock (Zone 4)				
32	Supply, delivery and installation of 10mm ² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	840		
33	Supply, delivery and installation 80mm, 120m stainless steel conduit complete with accessories.	Sum	1		
34	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches	m³	179		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
35	150mm thick layers	m³	32		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
36	150mm thick layers	m³	32		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
37	150mm thick layers	m³	32		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
38	150mm thick layers Carried to Forward	m³	32	R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
39	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	210		
40	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	21		
41	Core-Drilling-through-existing wall for cable exiting the building	Sum	4		
	1 x 25mmØ Core, drilled through 230mm thick existing brickwall for cable existing the building	Sum	1		
4 2	Supply, delivery and installation of stainless steel conduit (cable wireway) in tunnel, complete with stainless steel fixture.	Sum	4		
	l and J Tug Jetty And Street Light (Zone 4)				
43	Supply, delivery and installation of 4mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	300		
44	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC	m	100		
45	Supply, delivery and installation 35mm,100m stainless steel conduit complete with accessories.	Sum	1		
46	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches	m³	72		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
47	150mm thick layers	m³	13		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
48	150mm thick layers	m³	13		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum				
	density				
49	150mm thick layers	m³	13		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
50	150mm thick layers Carried to Forward	m³	13	R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
51	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	84		
52	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	10		
53	Pipe jacking under roads, railway lines, etc. including all necessary excavations, establishment and reinstatement of existing work removed	m	10		
	KINGS REST YARD (Zone 5)				
54	Supply, delivery and installation of 10mm ² 4 core, PVC, ECC, SWA, copper cable see drawing no.: 2127731-1-000-E-LA-0005-05	m	480		
55	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches	m³	128		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
56	150mm thick layers	m³	23		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
57	150mm thick layers	m³	23		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
58	150mm thick layers	m³	23		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
59	150mm thick layers	m³	23		
60	Pipe jacking under railway lines, etc. including all necessary excavations, establishment and reinstatement of existing work removed	m	10		
61	Supply, delivery and installation of 110mmØ PVC sleeve pipe as per drawing no.: 2127731-1-000-E-LA-0005-05	m	10		
	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m³	150		
	Carried to Forward			R	
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	Brought forward			R	
62	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	14		
	FYNNLANDS YARD LIGHTING (Zone 5)				
63	Supply, delivery and installation of 10mm ² 4 core, PVC, ECC, SWA, copper cable see drawing no.:2127731-1-000-E-LA-0005-06	m	100		
64	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse on excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches	m³	63		
65	Pipe jacking under railway lines, etc. including all necessary excavations, establishment and reinstatement of existing work removed	m	7		
66	Supply, delivery and installation of 110mmØ PVC sleeve pipe as per drawing no.: 2127731-1-000-E-LA-0005-05	m	7		
67	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	7		
	BAYHEAD ROAD (Zone 5)				
68	Supply, delivery and installation of 4mm² 2core, PVC, ECC, SWA, copper cable see drawing no.:2127731-1-000-E-LA-0005-01	m	80		
69	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches	m³	25		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
70	150mm thick layers	m³	4		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
71	150mm thick layers	m³	4		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
72	150mm thick layers	m³	4		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
73	150mm thick layers	m³	4		
	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	25		
74	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	3		
	AMBROSE PARK ROAD (Zone 5)				
75	Supply, delivery, and Installation of 4mm ² 4core, PVC, ECC, SWA, copper cable see drawing: 2127731-1-000-E-LA-0005-	m	280		
76	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing no.:2127731-1-000-E-LA-0005-04 and the TPD-003-CABLESPEC.	m³	78		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
77	150mm thick layers	m³	14		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
78	150mm thick layers	m³	14		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
79	150mm thick layers	m³	14		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
80	150mm thick layers	m³	14		
81	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	91		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
82	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	12		
	Kuwait Road (Zone 5)				
83	Supply, delivery, and Installation of 10mm² 4core, PVC, ECC, SWA, copper cable see drawing no.:2127731-1-000-E-LA-0005-04	m	370		
84	Supply, delivery, and Installation of 6mm² 4core, PVC, ECC, SWA, copper cable	m	620		
85	Supply, delivery, and Installation of 4mm² 2core, PVC, ECC, SWA, copper cable	m	160		
86	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing no.:2127731-1-000-E-LA-0005-04 and the TPD-003-CABLESPEC.	m³	320		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum				
	density				
87	150mm thick layers	m³	56		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
88	150mm thick layers	m³	56		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
89	150mm thick layers	m³	56		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
90	150mm thick layers	m³	56		
91	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	376		
92	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	30		
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	Carried to Forward			R	

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Item	Description	Unit	Quantity	Rate	Amount
94	Brought forward Supply, delivery and installation of 70mmØ (HDPE) pipe by means of horizontal directional drilling across rail tracks	m	95	R	
95	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing 2127731-1-000-E-LA-0006-01 and the TPD-003-CABLESPEC	m³	30		
	Filling, etc.				
96	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
97	150mm thick layers	m³	5		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
98	150mm thick layers	m³	5		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
99	150mm thick layers	m³	5		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
100	150mm thick layers	m³	5		
101	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	34		
102	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	9		
	2127737- Port Perimeter (Cutler Wall)- Cutler Service Road (Zone 6)				
103	Supply, delivery and installation of 6mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	260		
104	Supply, delivery and installation of 2.5mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	190		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
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	Brought forward			R	
105	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing 2127731-1-000-E-LA-0006-01 and the TPD-003-CABLESPEC.	m³	110		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
106	150mm thick layers	m³	19		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
107	150mm thick layers	m³	19		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
108	150mm thick layers	m³	19		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
109	150mm thick layers	m³	19		
110	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	128		
111	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	35		
112	Supply, delivery and installation of 110mmØ (HDPE) pipe by means of horizontal directional drilling across rail tracks	m	15		
113	Pipe jacking under railway lines, etc. including all necessary excavations, establishment and reinstatement of existing work removed	m	15		
114	Supply, delivery and installation of 110mmØ (HDPE) pipe by means of horizontal directional drilling under rail track	m	15		
	Port Perimeter (Cutler Wall)- Celebes Road (Zone 6)				
115	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC	m	40		
	Carried to Forward			R	

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Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
116	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing 2127731-1-000-E-LA-0006-07 and the TPD-003-CABLESPEC.	m³	10		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
117	150mm thick layers	m³	2		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
118	150mm thick layers	m³	2		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
119	150mm thick layers	m³	2		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
120	150mm thick layers	m³	2		
121	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	11		
122	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	1		
	Formous/ Causeway Road				
123	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC	m	36		
124	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing 2127731-1-000-E-LA-0006-05 and the TPD-003-CABLESPEC.	m³	10		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
125	150mm thick layers	m³	2		
	Carried to Forward			R	
	•	, ,		• '	1

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
126	150mm thick layers	m³	2		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
127	150mm thick layers	m³	2		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
128	150mm thick layers	m³	2		
129	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	11		
130	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	1		
	Abadan Yard (Zone 6)				
131	Pipe jacking under railway lines, etc. including all necessary excavations, establishment and reinstatement of existing work removed	m	5		
132	Supply, delivery and installation of 110mmØ (HDPE) pipe by means of horizontal directional drilling across rail tracks	m	20		
133	Supply, delivery and installation of 2.5mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC	m	850		
134	Supply, delivery and installation of 2.5mm² 4core PVC insulated PVC bedded SWA sheated 600/1000V ECC cable inside the existing Culter wall low voltage cable way to the	m	710		
135	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing 2127731-1-000-E-LA-0006-04 and the TPD-003-CABLESPEC.	m³	180		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
136	150mm thick layers	m³	32		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
137	150mm thick layers	m³	32		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
138	150mm thick layers	m³	32		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
139	150mm thick layers	m³	32		
140	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	210		
141	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	17		
	Umgababa Yard (Zone 6)				
142	Supply, delivery and installation of 6mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	450		
143	Supply, delivery and installation of 2.5mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC	m	230		
144	Supply, delivery and installation of a 110mmØ corruguard PVC sleeve across roadway	m	12		
145	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing 2127737-1-000-E-LA-0001 and the TPD-003-CABLESPEC.	m³	110		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
146	150mm thick layers	m³	20		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
147	150mm thick layers	m³	20		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
148	150mm thick layers	m³	20		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
149	150mm thick layers	m³	20		
150	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	132		
151	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	50		
	Hokkaido (Zone 6)				
152	Supply, delivery and installation of 10mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	650		
153	Supply, delivery and installation of 110mmØ (HDPE) pipe by means of horizontal directional drilling across rail tracks	m	60		
154	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches asper drawing 2127737-1-000-E-LA-0001 and the TPD-003-CABLESPEC.	m³	170		
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
155	150mm thick layers	m³	30		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
156	150mm thick layers	m³	30		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
157	150mm thick layers	m³	30		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
158	150mm thick layers	m³	30		
159	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	180		
160	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	21		
	Berths 1, 2, 3, 4, 5, 6, 7, 8, 10 (Zone 6)				
161	Supply, delivery and installation of 35mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable	m	650		
162	Supply, delivery and installation of 16mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable	m	1210		
163	Supply, delivery and installation of 10mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable	m	3550		
164	Supply, delivery and installation of 110mmØ (HDPE) pipe by means of horizontal directional drilling across roadway	m	58		
165	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per detail showed on drawing 2127737-1-0006-08, 2127737-1-000-E-LA-0006-10,2127737-1-000-E-LA-0006-11, 21277737-1-000-E-LA-0006-12 and the TPD-003-	m³	1692		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
166	150mm thick layers	m³	298		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
167	150mm thick layers	m³	298		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
168	150mm thick layers	m³	298		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
169	150mm thick layers	m³	298		
170	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	1991		
171	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	120		
	Cable Support System				
172	Design, supply, deliver, offload and install a hot dipped galvanised steel cable way, complete with all related accessories: horizontal bends, internal bends, external bends, and straight sections to accommodate the power supply to the light poles that are to be installed on the existing pipe rack system.	Sum	1		
	Berth 9 (Zone 6)				
173	Supply, delivery and installation of 6mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	550		
174	Supply, delivery and installation of 110mmØ diameter corruguard PVC sleeve across roadway	m	75		
175	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing 2127737-1-000-E-LA-0009 and the TPD-003-CABLESPEC.	m³	124		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
176	150mm thick layers	m³	22		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
177	150mm thick layers	m³	22		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
178	150mm thick layers	m³	22		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
179	150mm thick layers	m³	22		
180	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	144		
181	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	12		
	SOUTH PIER SERVICE ROAD (Zone 7)				
182	Supply, delivery and installation of 25mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	530		
183	Supply, delivery and installation of 4mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable.	m	520		
184	Supply, delivery and installation of 110mmØ(HDPE) pipe by means of horizontal directional drilling under rail track	m	15		
185	Excavation in earth not exceeding 2m deep for cable trenches including risk of collapse of excavations, keeping excavations free from water, setting aside excavated material and later refilling of trenches as per drawing 127731-1-000-E-LA-0007-01 and the TPD-003-CABLESPEC.	m³	250		
	Filling, etc.				
	Filling with approved G2 material supplied and carted onto site by Contractor compacted to 98% Mod AASHTO maximum density				
186	150mm thick layers	m³	44		
	Filling with approved C3 material with 4% cement stabilised layer supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
187	150mm thick layers	m³	44		
	Filling with approved G5 material supplied and carted onto site by Contractor compacted to 95% Mod AASHTO maximum density				
188	150mm thick layers	m³	44		
	Filling with approved G7 material supplied and carted onto site by Contractor compacted to 93% Mod AASHTO maximum density				
189	150mm thick layers	m³	44		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
190	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density	m²	294		
191	Extra over trench excavations for carting away surplus material to a dumping site to be located by the contractor	m³	25		
	Low Voltage Cable Termination				
	CATO CREEK YARD (Zone 2)				
192	Supply, delivery and installation of 10mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	4		
193	Supply, delivery and installation of 2.5mm² 2 core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	4		
	TUG JETTY (Zone 3)				
194	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	10		
	GENERAL STREET LIGHTING (Zone 3)				
195	Supply, delivery and installation of 6mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	20		
196	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	20		
	DRY DOCK (Zone 4)				
197	Supply, delivery and installation of 10mm ² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	24		
	I & J TUG JETTY AND STREET LIGHTING (Zone 4)				
198	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	4		
199	Supply, delivery and installation of 4mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	12		
	KINGS REST YARD (Zone 5)				
200	Supply, delivery and installation of 10mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	4		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	FYNNLANDS YARD LIGHTING (Zone 5)				
201	Supply, delivery and installation of 10mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	2		
	BAYHEAD ROAD (Zone 5)				
202	Supply, delivery and installation of 4mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	12		
	AMBROSE PARK ROAD (Zone 5)				
203	Supply, delivery and installation of 4mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	10		
	KUWAIT ROAD (ZONE 5)				
204	Supply, delivery and installation of 10mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	4		
205	Supply, delivery and installation of 6mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	14		
206	Supply, delivery and installation of 4mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	6		
	WHARFSIDE ROAD (Zone 6)				
207	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	8		
	PORT PERIMETER (CUTLER WALL)- CUTLER SERVICE ROAD (Zone 6)				
208	Supply, delivery and installation of 6mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	2		
209	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	14		
	PORT PERIMETER(CUTLER WALL)- CELEBES ROAD (Zone 6)				
210	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	2		
	Carried to Forward			R	
					1

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	PORT PERIMETER(CUTLER WALL)- FORMOSA/CAUSEWAY ROAD (Zone 6)				
211	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	3		
	ABADAN YARD (Zone 6)				
212	Supply, delivery and installation of 16mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	4		
213	Supply, delivery and installation of 2.5mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	56		
	UMGABABA YARD (Zone 6)				
214	Supply, delivery and installation of 6mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	4		
215	Supply, delivery and installation of 2.5mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	12		
	HOKKAIDO YARD (Zone 6)				
216	Supply, delivery and installation of 10mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	12		
	BERTHS 1, 2, 3, 4, 5, 6, 7, 8, 10 (Zone 6)				
217	Supply, delivery and installation of 35mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	10		
218	Supply, delivery and installation of 16mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	94		
219	Supply, delivery and installation of 10mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	94		
	BERTH 9 (Zone 6)				
220	Supply, delivery and installation of 6mm² 2core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	30		
	SOUTH PIER SERVICE ROAD (Zone 7)				
221	Supply, delivery and installation of 16mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	2		
	Carried to Forward			R	

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Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
222	Supply, delivery and installation of 4mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable termination kit.	No.	22		
223	Supply, delivery and installation of 16mm² 4core PVC insulated PVC bedded SWA PVC sheathed 600/1000V ECC cable joint	No.	1		
	Carried to Final Summary			R	
	Carried to Final Summary			R	

Item	Description	Unit	Quantity	Rate	Amount
	SECTION NO. 2 : ELECTRICAL WORK BILL NO. 3: GENERAL LIGHTING AND POWER				
	PREAMBLES				
	The Contractor is Referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill				
	SUPPLEMENTARY PREAMBLES				
	<u>Light fittings</u>				
	Rates for light fittings are to include for hanging, fixing and connecting and for lamp holders and fluorescent tubes and lamps of the type and wattage described				
	Lighting, etc.				
	CATO CREEK YARD (Zone 2)				
4	Supply, delivery and installation of equal or similar approved to- Beka Omniblast MAXI-7-E-455W, 10kV surge protection- device Owlet IOT P7CM with integrated photocell on a NEMA- socket top of each light pole for control	No	47		
1	Supply, deliver, offload and install equal or similar approved to Beka Omniblast 1E MAXI 455W 4000k optic 5188, with 10kV surge protection and integrated 7 Nema socket and weatherproof cover for the Nema socket, on existing high masts at the Cato Creek East Yard as indicated on drawing 2127737-1-000-E-LA-0002-01.Nema socket and luminaire must be wired for future automation using Owlet plug in	No	47		
2	Supply, installation, programming and commissioning of lighting control network system.	Sum	4		
3	Supply, deliver, paint and install Hot Dip Galvanised 30m high mast complete with luminaire mounting ring. Mast shall be fully equipped with the distribution board, circuit breakers and maintenance winch.	No.	1		
4	Supply and installation of mast base as per the base foundation drawing No: 2127737-1-000-S-LA-0001-01	No.	1		
5	Supply, deliver and install equal or similar approved to Beka LEDlume-MIDI 76W Optic 5098 complete with mounting spigot and integrated photocell on a NEMA socket top of each light pole for control	No.	6		
6	Supply, deliver, paint and install 12m Hot Dip Galvanised Steel poles complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0002-01	No.	2		
	TUG JETTY (Zone 3)				
7	Supply, delivery and installation of equal or similar approved to Beka LEDlume-Midi LED 53W 5098 Optics fitting with integrated photocell on a NEMA socket top of each light pole	No.	23		
	Carried to Forward			R	
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Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
8	Supply, delivery and installation of 3.5m fibre-glass street light poles complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0003-01	No.	3		
9	Supply, delivery and installation of 9m fibre-glass street light poles complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0003-01	No.	4		
10	Supply, delivery and installation of new 60mm Ø double levelling spigot and a 500 mm, 76mm Ø HDG steel outreach arm on existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0003-01	Sum	1		
	OTB (Zone 3)				
11	Supply, delivery and installation of equal or similar approved to Beka TECEO, 5098 OPTICS, 53W fitting with integrated photocell on a NEMA socket top of each light pole for control.	No.	36		
12	Supply, delivery and installation of equal or similar approved to Beka LEDlume-Midi LED 76W 5098 Optics fitting with integrated photocell on a NEMA socket top of each light pole	No	15		
13	Supply, delivery and installation of equal or similar approved to Beka LedShine 43W 5098 Optics fitting with integrated photocell on a NEMA socket top of each light pole for control.	No.	9		
14	Supply, delivery and installation of equal or similar approved to Beka Kazelle 55W 5098 Optics fitting with integrated photocell on a NEMA socket top of each light pole for control.	No	4		
	FRESH PRODUCE (Zone 3)				
15	Supply, delivery and installation of equal or similar approved to Beka LEDlume-Midi LED 144W 5098 Optics fitting with integrated photocell on a NEMA socket top of each light pole	No.	18		
	GENERAL STREET LIGHTING (Zone 3)				
16	Supply, delivery and installation of equal or similar approved to Beka TECEO 71W, 5098 Optics fitting with integrated photocell on a NEMA socket top of each light pole for control.	No.	65		
17	Supply, delivery and installation of equal or similar approved to Beka OMNIBLAST 455W, 1400mA, 5188, 5700K, 96 LED's Optics fitting with integrated photocell on a NEMA socket top of each light pole for control.	No.	4		
18	Supply, delivery and installation and paint Hot Dip Galvanised 30m high mast complete with luminaire mounting ring. Mast shall be fully equipped with the distribution board, circuit breakers, maintenance winch	No.	1		
19	Construct new HML base as per the base foundation drawing No: 2127737-1-000-S-LA-0001-01 Carried to Forward	No.	1	R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
20	Supply, delivery and installation of Hot Dip Galvanised painted steel 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0003-03	No.	3		
21	Supply, delivery and installation of Hot Dip Galvanised painted steel 6m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0003-03	No.	3		
22	a) The Contractor shall supply, deliver and install 6 x 316 stainless steel mounting bracket, including 3 x 316 stainless steel 180mm Ø pipe, the bracket shall be mounted similar to the one on the existing Schoeman bridge. The 3 x 316 stainless steel pipe is for mounting the proposed 3 x 6m hot dip galvanized steel poles as shown in detail B in drawing no	No	3		
	DRY DOCK (Zone 4)				
23	Supply, delivery and installation of equal or similar approved to BEKA LEDLUME midi 32LEDs 75W-700mA, 10kV surge protection on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0004-04	No.	12		
24	Supply, delivery and installation of fibreglass 9m street light poles complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0004-04	No.	12		
	MAYDON WHARF YARD (Zone 4)				
	Area Lighting				
25	Supply, delivery and installation of equal or similar approved to- Beka Omniblast MAXI-7-E-455W, 10kV surge protection- device Owlet IOT P7CM including photocell on top of each light- for control	No.	170		
25	Supply, deliver, offload and install one hundred and seventy (170) equal or similar approved to Beka Omniblast 1E MAXI 455W 4000k optic 5188, with 10kV surge protection and integrated 7 Nema socket and weatherproof cover for the Nema socket on existing 17 x 30m High Mast Poles at the Maydon Wharf Rail Yard as indicated in drawing number: 2127737-1-000-E-LA-0004-01, 2127737-1-000-E-LA-0004-02 and 2127737-1-000-E-LA-0004-03. The number of luminaires per pole is clearly illustrated on the aforementioned drawing numbers.Nema socket and luminaire must be wired for future automation using Owlet plug in module.	No	170		
26	Supply, installation, programming and commissioning of lighting control network system.	Sum	4		
27	30m High Mast to be inspected as detailed in Works information.	No.	17		
	1			R	

ltem	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	I & J TUG JETTY AND STREET LIGHTING (Zone 4)				
	Street Lighting				
28	Supply, delivery and installation of equal or similar approved to BEKA LEDLUME midi 48 LED 76W OPTIC 5098 with integrated photocell on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0004-06	No.	26		
29	Supply, delivery and installation of equal or similar approved to BEKA OMNISTAR maxi 321W, 10kV surge protection device as illustrated in drawing no: 2127731-1-000-E-LA-0004-06	No.	2		
30	Supply, delivery and installation of glass fibre 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0004-06	No.	5		
	MANGANESE YARD (Zone 4)				
	High-Mast				
31	30m High Mast to be inspected as detailed in Works information.	No.	1		
	Area Lighting				
32	Supply, delivery and installation of equal or similar—approved to Beka Omniblast MAXI-7-E-455W, 10kV surge protection-device including photocell on top of each light pole for control as per drawing no: 2127731-1-000-E-LA-0004-05.	No.	10		
32	Supply, deliver, offload and install equal or similar approved to 10 x Beka Omniblast 1E MAXI 455W 4000k optic 5188, with 10kV surge protection and integrated 7 Nema socket and weatherproof cover for the Nema socket on the existing 30m high mast at Manganese Yard as indicated in drawing number: 2127737-1-000-E-LA-0004-05.Nema socket and luminaire must be wired for future automation using Owlet plug in	No	10		
	KINGS REST YARD (Zone 5)				
	High Mast				
33	Supply, deliver, paint and install Hot Dip Galvanised 30m high mast complete with luminaire mounting ring. Mast shall be fully equipped with the distribution board, circuit breakers and maintenance winch as per drawing no.: 2127731-1-000-E-LA-0005-05.	No.	2		
	Construct new HML base as per the base foundation drawing No: 2127737-1-000-S-LA-0001-01	No.	3		
34	30m High Mast to be inspected as detailed in Works information.	No.	29		
	Aunical (c. Free c. 1)				
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward <u>Lighting Installation</u>			R	
35	Supply, delivery and installation of equal or similar approved to Beka Omniblast MAXI-7-E-455W, 10kV-surge protection-device Owlet IOT P7CM with integrated photocell on a NEMA-socket top of each light pole for control	No.	220		
35	Supply, deliver, offload and install 220 x equal or similar approved Beka Omniblast 1E MAXI 455W 4000k optic 5188, with 10kV surge protection and integrated 7 Nema socket and weatherproof cover for the Nema socket, on all the high masts as shown in drawing No: 2127737-1-000-E-LA-0005-05.Nema socket and luminaire must be wired for future automation using Owlet plug in module.	No	220		
36	Supply, installation, programming and commissioning of lighting control network system.	Sum	4		
	FYNNLANDS YARD LIGHTING (Zone 5)				
	High Mast				
37	Supply, delivery, paint and installation of Hot Dip Galvanised 30m high mast complete with luminaire mounting ring. Mast shall be fully equipped with the distribution board, circuit breakers and maintenance winch as per drawing no.: 2127731-1-000-E-LA-0005-06.	No.	1		
38	Construct new HML base as per the base foundation drawing No: 2127737-1-000-S-LA-0001-01	No.	1		
39	30m High Mast to be inspected as detailed in Works information.	No.	8		
	Lighting Installation				
40	Supply, delivery and installation of equal or similar approved to Beka Omniblast MAXI -7-E-455W, 10kV-surge protection-device Owlet IOT P7CM with integrated photocell on a NEMA-socket top of each light pole for control	No.	72		
40	Supply, deliver, offload and install 72 x equal or similar approved to Beka Omniblast 1E MAXI 455W 4000k optic 5188, with 10kV surge protection and integrated 7 Nema socket and weatherproof cover for the Nema socket, in all the High masts as shown in drawing No: 2127737-1-000-E-LA-0005-06.Nema socket and luminaire must be wired for future automation using Owlet plug in module.	No	72		
41	Supply, installation, programming and commissioning of lighting control network system.	Sum	4		
	Carried to Forward			R	
	Carried to Forward			IX.	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	BAYHEAD ROAD (Zone5)				
	9m Street Light Poles				
42	Supply, delivery, paint and erect 9m Hot-dip Galvanized steel pole with PVC, copper trailing cable, mounted with back-to-back spigot, see drawing no.:2127731-1-000-E-LA-0005-01. Pole to be planted into the ground.	No.	7		
	Street Light Fittings				
43	Supply, delivery and installation of equal or similar approved to Beka LEDLUME Midi 148W LED fitting with integrated photocell and 10kV surge protection device.	No.	102		
	LANGEBERG ROAD (Zone 5)				
	<u>Lighting Installation</u>				
44	Supply, delivery and installation of equal or similar approved to Beka LEDlume MAXI, 5119 optic, 277W , 10kV surge protection device, with integrated photocell on a NEMA socket top of each light pole for control	No.	53		
	AMBROSE PARK ROAD (Zone 5)				
	9m Light Pole				
45	Supply, delivery and erect new 9m steel pole Hot-dip Galvanized and painted, complete with earthing finial and with single side 0.5m spigot (painted white)	No.	5		
	Road Lighting				
46	Supply, delivery and installation of equal or similar approved to Beka LEDlume Midi, 5119 optics, 140W complete with integrated photocell	No.	32		
	IRAN ROAD (Zone 5)				
47	Supply, delivery and installation of equal or similar approved to Beka LEDLUME MAXI 277W LED fittings with integrated photocell on 10m poles	No.	50		
	KUWAIT ROAD (Zone 5)				
	9m Light poles				
48	Supply, delivery and erect new 9m steel pole Hot-dip Galvanized and painted, complete with earthing finial and with single side 0.5m spigot (painted white)	No.	17		
	New Electrical Kiosk				
49	Supply and installation of the kiosk plinth pre-cast	No.	2		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
50	Brought forward Supply and installation of Fibre glass Electrical kiosk, comprising of all the switch gear, surge protection, labelling and wiring as per TPD-002-DBSPEC.	No.	2	R	
51	Modifications to existing low voltage board in Fynnlands Substation.	Sum	1		
	Road Lighting				
52	Supply, delivery and installation of equal or similar approved to Beka LEDLUME Midi 140W LED fitting with integrated photocell.	No.	17		
	BAYHEAD ROAD RAIL TRACK (Zone 5)				
	Track Lighting				
53	Supply, deliver and install similar or equal approved to Beka new 53W LEDlume Midi, 5119 optics, LED fitting with integrated photocell.	No.	15		
54	Supply and install back-to-back spigot with the one-sided 0.5m outreach arm facing the rail track	No.	14		
55	Supply, deliver and install equal or similar approved to Beka LEDlume Mini, 5119 optic; 53W tilted 10 degrees, with integrated photocell on the existing 9m poles with double spigots.	No.	28		
	SHARKMESHER ROAD (Zone 5)				
56	Supply, deliver and install similar or equal approved to Beka new 148W LEDlume Midi, 5119 optics LED fitting with integrated photocell.	No.	10		
	WHARFSIDE ROAD (Zone 6)				
	Street Lighting				
57	Supply and installation of new galvanised steel spigot for mounting a new luminaires on the existing poles.	No.	8		
58	Supply, delivery and installation of equal or similar approved to LEDLUME midi 48 LED 73W OPTIC 5098 with integrated photocell on a NEMA socket on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0006-01	No.	12		
59	Supply, delivery and installation of galvanised steel 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0006-01	No.	4		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	PORT PERIMETER(CUTLER WALL)- CUTLER SERVICE ROAD (Zone 6)				
	Street Lighting				
60	Supply delivery and installation of equal or approved to Beka LEDLUME midi 48 LED 73W OPTIC 5098 with integrated photocell on a NEMA socket on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0006-01	No.	8		
61	Supply delivery and installation and paint galvanised steel 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0006-06	No.	8		
	PORT PERIMETER(CUTLER WALL)- CELEBES ROAD (Zone 6)				
	Street Lighting				
62	Supply, delivery, installation and painting of new galvanised steel spigot for mounting a new luminaires on the existing	No.	8		
63	Supply, delivery and installation of equal or similar approved to Beka LEDLUME midi 48 LED 73W OPTIC 5098 with integrated photocell on a NEMA socket on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0006-07`	No.	9		
64	Supply, delivery, installation and painting of galvanised steel 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0006-01	No.	1		
	PORT PERIMETER(CUTLER WALL)- FORMOSA/CAUSEWAY ROAD (Zone 6)				
	Street Lighting				
65	Supply and installation of new galvanised steel spigot for mounting a new luminaires on the existing poles.	No.	7		
66	Supply, delivery and installation of equal or similar approved to Beka LEDLUME midi 48 LED 73W OPTIC 5098 with integrated photocell on a NEMA socket on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0006-01	No.	9		
67	Supply, delivery installation and painting of galvanised steel 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0006-05	No.	2		
				_	
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	ABADAN YARD (Zone 6)				
	Yard Lighting				
68	Supply, delivery and installation of equal or similar approved to Beka LEDLUME midi 48 LED 73W OPTIC 5098 with integrated photocell on a NEMA socket on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0006-04	No.	29		
69	Supply, installation and painting of galvanised steel 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailling cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0006-04	No.	29		
	UMGABABA YARD (Zone 6)				
	Yard Lighting				
70	Supply and install similar or equal approved to Beka LEDLUME midi 48 LED 73W OPTIC 5098 with integrated photocell on a NEMA socket on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0006-03	No.	8		
71	Supply, installation and painted of galvanised steel 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0006-03	No.	8		
	HOKKAIDO YARD (Zone 6)				
72	Supply and installation of the galvanised steel 30m scissor mast complete with a mounting ring for mounting 6 flood light.	No.	4		
73	Construct new HML base as per the base foundation drawing No: 2127737-1-000-S-LA-0001-01	No.	1		
74	Supply, deliver and install similar or equal approved to Beka- Omniblast MAXI-7-E-455W, 10kV surge protection device- Owlet IOT P7CM with integrated photocell on a NEMA socket- top of each light pole for control	No.	36		
74	Supply, deliver, offload and install 36 x equal or similar approved to Beka Omniblast 1E MAXI 455W 4000k optic 5188, with 10kV surge protection and integrated 7 Nema socket and weatherproof cover for the Nema socket, in all the Highmasts as shown in drawing No.: 2127737-1-000-E-LA-0006-02. The luminaires per pole and orientation is clearly indicated on the above-mentioned drawing number Nema socket and luminaire must be wired for future automation using Owlet plug in	No	36		
	BERTHS 1, 2, 3, 4, 5, 6, 7, 8, 10 (Zone 6)				
	Berth Lighting				
75	Supply, delivery and installation of equal or similar approved to Beka LEDlume MAXI, 5119 optic, 279W, 128 LEDs with integrated photocell on a NEMA socket on the 2m poles	No.	105		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
76	Supply, delivery and installation of equal or similar approved to Nordlan, 160W BLD 150 Zone 1 classification LED luminaires 10KV Surge Protection device with integrated photocell on a NEMA socket on the 6m poles.	No.	6		
77	Supply and installation Fibre glass heavy duty 6m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127737-1-000-E-LA-0006-08, 2127737-1-000-E-LA-0006-11.	No.	6		
78	Design, supply, deliver, offload and install 2m heavy duty steel hot dipped galvanised purpose made hinged walk-down streetlight poles. These poles shall be installed on the existing 8m pipe racks safely and neatly. The hinged walk-down pole shall be supplied complete with protection switchgear and fittings for mounting the luminaire 10m above ground level	No.	99		
79	Supply, delivery and install similar or equal to Beka LEDlume MAXI, 5119 optic, 279W, 128 LEDs with integrated photocell on a NEMA socket on the existing highmast.	No.	6		
80	Supply, delivery and install weatherproof wall mounted kiosk complete with fasteners and accessories as per drawing no: 2127737-1-000-E-LA-0006-08	No	1		
81	Supply, delivery and install weatherproof fibre glass wall mounted distribution board complete with fasteners and accessories as per drawing no: 2127737-1-000-E-LA-0006-10, 2127737-1-000-E-LA-0006-11, 2127737-1-000-E-LA-0006-12	No	6		
	BERTH 9 (Zone 6)				
	Street Lighting				
82	Supply, delivery, installation and painting of new galvanised steel spigots for mounting new luminaires on the existing poles.	No.	8		
83	Supply and install similar or equal approved to Beka LEDLUME midi 48 LED 73W OPTIC 5098 with integrated photocell on a NEMA socket on the new and existing poles as illustrated in drawing no: 2127731-1-000-E-LA-0006-01	No.	23		
84	Supply, installation and painting of new galvanised steel 9m street light pole complete with single luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-	No.	14		
85	Supply, installation and painting of new galvanised steel 9m street light pole complete with double luminaire mounting spigot, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-	No.	1		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward SOUTH PIER SERVICE ROAD (Zone 7)			R	
	Street Lighting				
86	Supply, delivery and installation of equal or similar proved to Beka LEDLUME midi 48 LED 73W OPTIC 5098 with integrated photocell on a NEMA socket on the new poles as illustrated in drawing no: 2127731-1-000-E-LA-0006-01	No.	12		
87	Supply, delivery, installation and painting of new galvanised steel 9m street light pole complete with luminaire mounting spigots, 2.5mm² trailing cable and protection switchgear inside the pole as illustrated in drawing no: 2127731-1-000-E-LA-0007-01	No.	12		
	EARTHING AND LIGHTNING PROTECTION etc.				
	CATO CREEK YARD (Zone 2)				
88	Design, supply and installation of earthing and lightning protection to the new and relocated high masts. This includes supply and installation Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	11		
89	The contractor shall test the existing high masts earthing and bonding. This includes supply and installation of Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	2		
	TUG JETTY(Zone 3)				
90	Design, supply and installation of earthing and lightning protection to the existing and new street light poles. This includes supply and installation Hot-dip Galvanized finial and bonding to ground.	No.	46		
	ОТВ				
91	Design, supply and installation of earthing and lightning protection to the existing light poles. This includes supply and installation Hot-dip Galvanized finial and bonding to ground.	No.	94		
	GENERAL STREET LIGHTING (Zone 3)				
92	Design, supply and installation of earthing and lightning protection to the new and relocated high masts. This includes supply and installation Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	150		
93	Design, supply and installation of lightning protection for high mast	No.	1		
	DRY DOCK (Zone 4)				
94	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	12		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	MAYDON WHARF YARD (Zone 4)				
95	The contractor shall test the existing high masts earthing and bonding.	No.	17		
	I & J TUG JETTY AND STREET LIGHTING (Zone 4)				
96	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	17		
	MANGANESE YARD (Zone 4)				
97	The contractor shall test the existing high masts earthing and bonding.	No.	1		
	KINGS REST YARD (Zone 5)				
98	Design, supply and installation of earthing and lightning protection to the new and relocated high masts. This includes supply and installation Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	3		
99	The contractor shall test the existing high masts earthing and bonding. This includes supply and installation of Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	29		
	FYNNLANDS YARD LIGHTING (Zone 5)				
100	Design, supply and installation of earthing and lightning protection to the new and relocated high masts. This includes supply and installation of Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	1		
101	The contractor shall test the existing high masts earthing and bonding. This includes supply and installation of Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	8		
	BAYHEAD ROAD (Zone 5)				
102	Supply delivery and installation of the earthing and lightning protection to the new streetlight poles. This includes supply and installation of Hot-dip Galvanized finial and bonding of the high mast to ground.	No	7		
103	The contractor shall test the earthing and bonding on the existing street light poles. This includes supply and installation of Hot-dip Galvanized finial and bonding of the pole to ground.	No.	44		
	LANGEBERG ROAD (Zone 5)				
104	The contractor shall test the earthing and bonding on the existing high masts. This includes supply and installation of Hot-dip Galvanized finial and bonding of the mast to ground.	No.	18		
	Carried to Forward			R	

-	Description	Unit	Ougntitu	Doto	Amount
Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	AMBROSE PARK ROAD (Zone 5)				
105	Supply, delivery and installation of the earthing and lightning protection to the new streetlight poles. This includes supply and installation of Hot-dip Galvanized finial and bonding to ground of all new and existing poles.	No.	32		
	IRAN ROAD (Zone 5)				
106	Design, supply and installation Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	55		
	KUWAIT ROAD (Zone 5)				
107	Design, supply and installation of earthing and lightning protection to all kiosks as per drawing no.:2127731-1-000-E-LA-0005-04.	No.	2		
108	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	17		
	BAYHEAD ROAD RAIL TRACK (Zone 5)				
109	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	29		
	SHARKMESHER ROAD				
110	Design, supply and installation Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	10		
	WHARFSIDE ROAD (Zone 6)				
111	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	4		
112	Design, supply and installation of galvanised steel finials to be mounted on the existing galvanized steel poles.	No.	8		
	PORT PERIMETER(CUTLER WALL)- CUTLER SERVICE ROAD (Zone 6)				
113	Design, supply and installation Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	8		
	PORT PERIMETER(CUTLER WALL)- CELEBES ROAD (Zone 6)				
114	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles. Carried to Forward	No.	1	R	
	Carried to Forward				

ltem	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
115	Design, supply and installation of galvanised steel finals to be mounted on the existing galvanized steel poles.	No.	8		
	PORT PERIMETER(CUTLER WALL)- FORMOSA/CAUSEWAY ROAD(Zone 6)				
116	Design, supply and installation Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	2		
117	Design, supply and installation of galvanised steel finials to be mounted on the existing galvanized steel poles.	No.	2		
	ABADAN YARD (Zone 6)				
118	Design, supply and installation Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	29		
	UMGABABA YARD (Zone 6)				
119	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	8		
	HOKKAIDO YARD (Zone 6)				
120	Design, supply and installation of earthing and lightning protection to the new and relocated high masts. This includes supply and installation Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	8		
	BERTHS 1, 2, 3, 4, 5, 6, 7, 8, and 10 (Zone 6)				
121	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	109		
122	The contractor shall test the existing high masts earthing and bonding. This includes supply and installation of Hot-dip Galvanized finial and bonding of the high mast to ground.	No.	1		
	BERTH 9 (Zone 6)				
123	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	15		
124	Design, supply and installation of galvanised steel finials to be mounted on the existing galvanized steel poles.	No.	6		
	SOUTH PIER SERVICE ROAD (Zone 7)				
125	Design, supply and installation of Earthing and Lightning Protection. Design, supply and install galvanised steel finials to be mounted on the new galvanized steel poles.	No.	12		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	TESTING AND COMMISSIONING				
	CATO CREEK YARD (Zone 2)				
126	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
127	Testing and Commissioning of high masts and issue of RMD9 certificates	No.	11		
128	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	TUG JETTY (Zone 3)				
129	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
130	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	OTB (Zone 3)				
131	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
132	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	FRESH PRODUCE (Zone 3)				
133	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
134	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	GENERAL STREET LIGHTING (Zone 3)				
135	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
136	High mast - issuing of RMD9 certificate	No.	1		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
136	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	DRY DOCK (Zone 4)				
137	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
138	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	MAYDON WHARF YARD (Zone 4)				
139	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
140	High masts issuing of RMD9 certificates	No	17		
141	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	I & J TUG JETTY AND STREET LIGHTING (Zone 4)				
142	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
143	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	MANGANESE YARD (Zone 4)				
144	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
145	High masts issuing of RMD9 certificates	No.	1		
146	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	KINGS REST YARD (Zone 5)				
147	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates Carried to Forward	Sum	1	R	
	Carried to 1 Of Ward			, in	

Item	Description	Unit	Quantity	Rate	Amount
				1	
	Brought forward			R	
148	High masts issuing of RMD9 certificates	No.	32		
149	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	FYNNLANDS YARD LIGHTING (Zone 5)				
150	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
151	High masts issuing of RMD9 certificates	No.	9		
152	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	BAYHEAD ROAD (Zone 5)				
153	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
154	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	LANGEBERG ROAD (Zone 5)				
155	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates.	Sum	1		
156	High masts issuing of RMD9 certificates	No.	18		
157	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	AMBROSE PARK ROAD (Zone 5)				
158	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
159	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward IRAN ROAD (Zone 5)			R	
160	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
161	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	KUWAIT ROAD (Zone 5)				
162	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
163	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	BAYHEAD ROAD RAIL TRACK (Zone 5)				
164	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
165	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	SHARKMESHER ROAD (Zone 5)				
166	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
167	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	WHARFSIDE ROAD (Zone 6)				
168	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
169	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	Comind to France			ר	
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	PORT PERIMETER(CUTLER WALL)- CUTLER SERVICE				
170	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
171	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	PORT PERIMETER(CUTLER WALL)- CELEBES ROAD (Zone 6)				
172	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
173	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	PORT PERIMETER(CUTLER WALL)-				
174	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
175	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	ABADAN YARD (Zone 6)				
176	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
177	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	UMGABABA YARD (Zone 6)				
178	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
179	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	Carried to Forward			R	

Item	Description	Unit	Quantity	Rate	Amount
	Brought forward			R	
	HOKKAIDO YARD (Zone 6)				
180	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
181	High masts issuing of RMD9 certificates	No.	6		
182	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	BERTHS 1, 2, 3, 4, 5, 6, 7, 8, 10 (Zone 6)				
183	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
184	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	BERTH 9 (Zone 6)				
185	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
186	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	SOUTH PIER SERVICE ROAD (Zone 7)				
187	Testing and commissioning of complete installation in accordance to SANS 10142-1 and testing and commissioning of earthing and lightning protection in accordance to SANS 10313, including the issue of COC certificates	Sum	1		
188	Lighting survey at night to measure and record the lighting the lighting level in the area where work was undertaken in the presence of the Employer's Engineers.	Sum	1		
	Carried to Final Summary			R	
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-	Description	Unit	Quantity	Rate		Amount
	SECTION NO. 2 : ELECTRICAL WORK BILL NO. 4: Provisional Sums					
	<u>PREAMBLES</u>					
	The Contractor is Referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill					
	SUPPLEMENTARY PREAMBLES					
	<u>General</u>					
	Work for which budgetary allowances are provided will be measured and valued in accordance with clause 32 of the Principal Building Agreement and deducted in whole or in part if not required without any compensation for loss or profit on the said allowances					
	BUDGETARY ALLOWANCES					
1	Provide a sum of R 500,000.00 for proving of services	Item			R	500 000,00
2	Provide a sum of R 200,000.00 for Hazcon study	Item			R	200 000,00
	Carried to Final Summary			R	R	700 000,00

Item	tion of the Works: Upgrade of Lighting in the Port of Durban Description	Unit	Quantity	Rate	Amount
	Section Summary Electrical Work Summary				
1	Alterations to Existing Power Supply	9		R	
2	Low Voltage Cabling/Termination/Cable Support	31		R	
3	General Lighting and Power	51		R	
4	Provisional Sums	52		R	R 700 000,00
	Carried to Final Summary			R	R 700 000,00

Description	Unit	Quantity	Rate	Amount
FINAL SUMMMARY	Page			<u>AMOUNT</u>
SECTION 1: PRELIMINARIES	1		R	
SECTION 2: ALTERATIONS, ETC.	4		R	
SECTION 3: ELECTRICAL WORK	53		R	
TOTAL EVOLUDING VAT CARRIED TO FORM OF OFFER				
TOTAL EXCLUDING VAT CARRIED TO FORM OF OFFER AND ACCPETANCE			R	