Complete this pages **without delay**, scan and email for the attention of Mr. Anesh Mangray at anesh@dlveng.co.za to confirm receipt hereof.



# REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE 1)

#### ADDENDUM TO TENDERERS № 01:

#### **Tender and Contract Data Revision**

Tender № : UGU-07-1683-2024

Client : Ugu District Municipality

#### **Addendum to Tenderers**

The additional information with this document "Addendum to Tenderers No. 1" forms part of the tender document.

Please initial against each item and sign at the end of the document as an acknowledgement of having received, read and understood the requirements and financial implication of each item.

Attach this document to the rest of the tender document as part of your tender submission. The amended pages are included as part of this transmission.

#### A. Volume 1: Tender Document

#### Item F2.15:

The closing date and time for receipt of tenders is at **12h00** on **Friday**, **06 December 2024**.

#### B. Volume 2: Contract Document

Replace the attached pages which includes the amended items shown below:-

1. The following amendment will apply to **SECTION 2**: **WWTW MECHANICAL WORKS** page **C.24** 

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		RAS pumpstation				
		Complete removal of Gorman Rupp T7 pumps with				
		electrical motor & frame & upload & transport to				
2.1.2.6		workshop for inspection & testing	no	2		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		RAS pumpstation				
2.1.2.6		Complete removal of Gorman Rupp T5 series pumps with electrical motor & frame & upload & transport to workshop for inspection & testing	no	2		

### 2. The following amendment will apply to **SECTION 2**: **WWTW MECHANICAL WORKS** page **C.25**

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.1.5		3 - RAS pumpstation (civil contractor to install subsurface drain)				
2.1.5.1		Remove KSB KWP - F - 150-315 pump with electrical motor & frame & upload & transport to workshop for inspection & testing	no	2		
2.1.5.2		Remove KSB KWP - F - 40-315 (TBC) pump with electrical motor & frame & upload & transport to workshop for inspection & testing	no	2		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.1.5		3 - RAS pumpstation (civil contractor to install subsurface drain)				
2.1.5.1		Remove KSB KWP - F150-315 pump with electrical motor & frame & upload & transport to workshop for inspection & testing	no	2		
2.1.5.2		Remove KSB KWP - F50-200 pump with electrical motor & frame & upload & transport to workshop for inspection & testing	no	2		

# 3. The following amendment will apply to SECTION 2: WWTW MECHANICAL WORKS page C.27

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.2.26		1) New Gorman Rupp T 4A35B - 7 (existing) (Cornell or Netzsch) self priming surface mount sludge pump complete with electrical motor, V-belt drive and mounting frame - 15 \$\ellsys\$ /s @ 8 m head	no	2		Rate Only
2.2.29		1) KSB KWP - F - 150-315 pump with electrical motor & frame	no	2		Rate Only
2.2.30		2) KSB KWP - F - 40-315 (TBC) pump with electrical motor & frame	no	2		Rate Only

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.2.26		New Gorman Rupp T4A3S - B /FM Series 5 (existing)     (Cornell or Netzsch) self priming surface mount sludge pump complete with electrical motor, V-belt drive and mounting frame - with 15 kW electrical motor	no	2		Rate Only
2.2.20		Trame - with 15 kW electrical motor	110			Rate Offig
2.2.29		(1) KSB KWP - F150-315 pump with electrical motor & frame with 7.5 kW electrical motor	no	2		Rate Only
2.2.30		2) KSB KWP - F50-200 pump with electrical motor & frame & 1.55 kW motor	no	2		Rate Only

# 4. The following amendment will apply to SECTION 2: WWTW MECHANICAL WORKS page C.28

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.5.4		a) 2 v Campan Dura T 4425D 7 9 min averale		4		
2.5.1		a) 2 x Gorman Rupp T 4A35B - 7 & pipework	sum	1		
2.5.2		a) 2 x KSB KWP - F - 150-315 pump & pipework	sum	1		
2.5.3		TT2				
		a) 2 x KSB KWP - F - 40-315 pump & pipework	sum	1		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.6.17		a) 2 x Gorman Rupp T4A3S - B /FM series 5 & pipework	sum	1		
2.6.18		a) 2 x KSB KWP - F150-315 pump with 7.5 kW motor & pipework	sum	1		
2.6.20		a) 2 x KSB KWP - F50-200 pump with 1.55 kW electrical motor & pipework	sum	1		

# 5. The following amendment will apply to **SECTION 2**: **WWTW MECHANICAL WORKS** page **C.29**

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.6.17		Gorman Rupp T 4A35B - 7 with electrical motor, V-belts on mounting frame & pipework.	sum	1		
2.6.18		2 x KSB KWP - F - 40-315 pump & pipework	sum	1		
2.6.20		2 x KSB KWP - F - 40-315 pump & pipework	sum	1		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.6.17		Gorman Rupp T 4A3S - B /FM with electrical motor, V-belts on mounting frame & pipework.	sum	1		
2.6.18		2 x KSB KWP - F150-315 pump & pipework	sum	1		
2.6.20		2 x KSB KWP - F50-200 pump & pipework	sum	1		

### 6. The following amendment will apply to **SECTION 9**: **EFFLUENT MAIN** page **C.62**

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
9.10.3		i) 450mm diameter oPVC Class 34	m	1		Rate Only
9.10.4		ii) 630mm diameter oPVC Class 34	m	1		Rate Only
9.10.1		i) 450mm diameter oPVC Class 34	m	2000		
9.10.2		i) 630mm diameter oPVC Class 34	m	400		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
9.10.3		i) 450mm diameter oPVC Class 16	m	1		Rate Only
9.10.4		ii) 630mm diameter oPVC Class 16	m	1		Rate Only
9.10.1		i) 450mm diameter oPVC Class 20	m	2000		
9.10.2		i) 630mm diameter oPVC Class 20	m	400		

# 7. The following amendment will apply to SECTION 15: GRAVITY MAIN PUMPSTATION A TO PUMPSTATION 3A page C.103

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
15.1.6.2		2) Hard rock	m³	636		
		b) By importation from commercial or off-site sources				
15.1.11	8.3.3.1(c)	selected by the Contractor	m³	915		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
15.1.6	2	2) Hard rock (Chemical Blasting)	m³	1017		
15.1.1	1 8.3.3.1(c)	b) By importation from commercial or off-site sources selected by the Contractor	m³	1297		

### 8. The following amendment will apply to SECTION 16: GRAVITY SEWER RETICULATION page C.108

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		c) Exceeding 2,0 m but not exceeding 3,0 m (machine exc. and including shoring/battering as				
16.1.5.2		applicable/dewatering)	m	1590		
16.1.6.1		2) Hard rock	m³	3498		
		"b) By importation from commercial or off-site sources selected by the Contractor				
16.1.10	8.3.3.1(c)	"	m³	5037		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		c) Exceeding 2,0 m but not exceeding 3,0 m (machine exc. and including shoring/battering as				
16.1.5.2		applicable/dewatering)	m	3590		
16.1.6.1		2) Hard rock (Chemical Blasting)	m³	7798		
		"b) By importation from commercial or off-site sources selected by the Contractor				
16.1.10	8.3.3.1(c)	"	m³	9007		

### 9. The following amendment will apply to SECTION 16 : GRAVITY SEWER RETICULATION page C.110

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
16.3.6		a) Selected granular material	m³	1030		
16.3.7		b) Selected fill material	m³	1517		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
16.3.6		a) Selected granular material	m³	1419		
16.3.7		b) Selected fill material	m³	1145		

# 10. The following amendment will apply to SECTION 16 : GRAVITY SEWER RETICULATION page C.111

#### Replace:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
16.4.1.3		iii) 200mm Ø uPVC Class 34	m	1750		
16.4.1.4		iv) 315mm Ø uPVC Class 34	m	2000		

#### With:

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
16.4.1.3		iii) 200mm Ø uPVC Class 34	m	2750		
16.4.1.4		iv) 315mm Ø uPVC Class 34	m	3000		



# REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE 1)

#### ADDENDUM TO TENDERERS № 01:

#### Tender and Contract Data Revision

Contract №: UGU-07-1683-2024

#### PLEASE ACKNOWLEDGE RECEIPT OF THIS ADDENDUM AS FOLLOWS:

Initial and sign pages and scan, **without delay**, and email for the attention of Mr. Anesh Mangray with e-mail to <a href="mailto:anesh@dlveng.co.za">anesh@dlveng.co.za</a> to confirm receipt hereof, and copy Mrs. N. Mabaso at <a href="mailto:Ntabiso.Mzotho@ugu.gov.za">Ntabiso.Mzotho@ugu.gov.za</a>

 Complete the acknowledgement of receipt below and submit the completed form with your tender.

Failure to acknowledge receipt of this Addendum may prejudice your tender.

	Commen
N. Mabaso	A. Mangray
for Ugu District Municipality	for DLV

#### **ACKNOWLEDGEMENT OF RECEIPT**

I/We herewith acknowledge receipt of

# ADDENDUM TO TENDERERS № 01: TENDER AND CONTRACT DATA REVISION

for Contract №

UGU-07-1683-2024

SIGNATURE:	DATE:
ON BEHALF OF:	

REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1)
CONTRACT No: UGU-07-1683-2024
SECTION 2: WWTW MECHANICAL WORKS

ITEM	REF	MECHANICAL WORKS DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BALANCE	BROUGHT	FORWARD				
		ITEM TO BE DISMANLED/UN-INSTALLED ON SITE & REMOVED EITHER TO BE REFURBISHED OR SCRAPPED - (civil contractor will empty tanks)				
2.1.2.6		RAS pumpstation Complete removal of Gorman Rupp T5 series pumps with electrical motor & frame & upload & transport to workshop for inspection & testing	no	2		
2.1.2.7		Remove inlet & outlet pipework inside PS building for upload and transport to workshop for inspection	sum	1		
2.1.2.8		Allow for complete overhaul of Gorman Rupp pumps, new impeller & bearing assembly and casing sand blasted and re-epoxy (2No.)	PC Sum	1	180 000.00	180 000.00
		Contractor's markup on item above	%	180 000		
2.1.2.9		Allow for new 316L SS Sch 10 inlet pipework with new shut-off valve & non-return valve, flanges	PC Sum	1	290 000.00	290 000.00
		Contractor's markup on item above	%	290 000		
2.1.2.10		Allow for new 316L SS Sch 10 inlet pipework with new shut-off valve & non-return valve, flanges class 1000/3	PC Sum	1	240 000.00	240 000.00
2.1.2.11		Contractor's markup on item above	%	240 000		
2.1.2.12		Allow for new hot dipped galvanized with epoxy coating outlet pipework with new shut-off valve & non-return valve, flanges class 1000/3	PC Sum	1	320 000.00	320 000.00
		Contractor's markup on item above	%	320 000		
B 2.1.3		Treatment Train 2 (TT2) 1 - Aeration tank				
2.1.3.1		Un-install & load onto truck - 3 x Surface aerators with 22 kW electrical motors & reduction gearbox	no	3		
2.1.3.2		Transport turbines with shaft to scrap	no	3		
2.1.3.3		Transport electrical motors with gearbox to contractor's workshop for inspection testing and rewiring of electrical motor if feasible	no	3		
2.1.3.4		Allow for rewiring of electrical motors (provisional)	PC Sum	1	40 000.00	40 000.00
		Contractor's markup on item above	%	40 000		
2.1.3.5		Allow for overhaul & refurbishment of reduction gearbox (provisional)	PC Sum	1	25 000.00	25 000.00
		Contractor's markup on item above	%	25 000		
2.1.3.6		Allow for transporting to & off loading at municipal mechanical yard in Port Shepstone of refurbished electrical motor & gearbox (provisional)	Sum	1		
2.1.3.7		Allow to remove existing metal overflow weir at aeration tank and transport to workshop for modification	Sum	1		
2.1.3.8		Modify weir to be fully adjustable to suit aerator turbine submerged level adjustment	Sum	1		
2.1.3.9		Remove existing ball & stanchion handrails on the two aerator bridges - upload and transport to scrap	m	40		
2.1.4	RRIED FOR	2 - Suction Lift Clarifiers (2 x) ± 19 m Ø Disassemble & removal from site for returbishment or to scrap the complete half bridge and sludge removal system				

C.25
REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1)
CONTRACT No: UGU-07-1683-2024
SECTION 2: WWTW MECHANICAL WORKS

ITEM	REF	MECHANICAL WORKS DESCRIPTION	UNIT	QTY	RATE	AMOUNT
ALANCE	BROUGHT	FORWARD				
2.1.4.1		a) Stainless steel handrails to store on site for re-use	m	36		
2.1.4.2		b) Framework with vertical & horizontal pipes & scraper mechanism, with sludge collection tank & siphon pipe to upload to scrap	no	2		
2.1.4.3		c) Drive motor with reduction gearbox & drive wheel to workshop for testing & refurbishment	no	2		
2.1.4.4		d) Bridge structure with side carrier beams - lifting by crane (9 m long) & transport to workshop for refurbishment	no	2		
2.1.4.5		e) Centre spider structural support frame with sludge collection circular tank & electrical slip rings - spider support frame to workshop for refurbishment - collection tank to scrap	no	2		
2.1.5		3 - RAS pumpstation (civil contractor to install subsurface drain)				
2.1.5.1		Remove KSB KWP - F150-315 pump with electrical motor & frame & upload & transport to workshop for inspection & testing	no	2		
2.1.5.2		Remove KSB KWP - F50-200 pump with electrical motor & frame & upload & transport to workshop for inspection & testing	no	2		
2.1.5.3		Allow for complete overhaul of KSB KWP pumps, new impeller & bearing assembly and casing sand blasted and re-epoxy	PC sum	1	160 000.00	160 000.00
2.1.5.5		Contractor's markup on item above	%	160 000		
2156		Allow for complete overhaul of KSB sludge pumps, new impeller & bearing assembly and casing sand	DC aum	1	140 000.00	140 000.00
2.1.5.6		blasted and re-epoxy	PC sum		140 000.00	140 000.00
2.1.5.7		Contractor's markup on item above	%	140 000		
2.1.5.5		PC amount for pipework, fittings & valves	PC sum	1	45 000.00	45 000.00
2.1.5.6		Contractor's markup on item above	%	45 000		
2.2		MANUFACTURE OR ORDER THE FOLLOWING EQUIPMENT				
		1) Equipment at Inlet Works - TT1 & TT2				
2.2.1		600 mm Wide SS 304L drip tray for screenings	no	1		
2.2.2		410 mm x 600 mm 304L SS U-frame and 400 mm x 600 mm 304L SS handstop with handle to replace existing	no	4		
2.2.3		Flow measuring equipment				
2.2.3		a) Open canal Ultrasonic liquid level detector & 304L     SS frame for mounting over the canal	no	1		
2.2.4		b) Flow meter transmitter with data logger with connection to MCC & PC in Admin control room	no	1		
2.2.5		c) 304L SS canopy mounted on top of frame over Ultrasonic liquid level detector	no	1		
		2) Aeration Tanks				
Α		тт1				
226		Vertical shaft, surface mount, slow speed surface aerators, complete with gearbox & baseplate for mounting (20 kW motor)	n-	4		
2.2.6		mounting (30 kW motor)	no			
2.2.7		316L SS mounting and adjusting bolts & nuts	no	16		

REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1)
CONTRACT No: UGU-07-1683-2024
SECTION 2: WWTW MECHANICAL WORKS

SALANCE BROUGHT FORWARD  5 - Pumpstation: Activated sludge re-circulation (RAS) and sludge draw-off Rates to be used if existing pumps not feasible to refurbish  a) TT1  1) New Gorman Rupp T4A3S - B /FM Series 5 (existing) (Cornell or Netzsch) self priming surface mount sludge pump complete with electrical motor, V-belt drive and mounting frame - with 15 kW electrical motor  2.2.26 motor   Netzsch self priming surface mount sludge pump complete with electrical motor for sludge pump complete with electrical motor for sludge draw-off,   8 \land s \tilde{\text{@}} \text{H} =   no   2    2.2.27   16 m   no   2    3) PC amount for new inlet & outlet pipework at sludge draw off pumps (Included in Item 2.1.2.10)  b) TT2  1) KSB KWP - F150-315 pump with electrical motor & frame with 7.5 kW electrical motor & frame with 7.5 kW electrical motor & frame 2.1.5 kW motor   no   2   Rate Only  3) PC amount for new inlet & outlet pipework at sludge draw off pumps (Included in Item 2.1.2.12)  Preliminary allowance for replacing corroded pipework	SECTION 2	2 : WWTW N	MECHANICAL WORKS DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Rates to be used if existing pumps not feasible to refurbish a) TT1  1) New Gorman Rupp TAASS - B-/FM Series 5 (existing) (Cornell or Netrach) self priming surface mount studge pump complete with electrical motor.  2.2.26  2.2.26  2.2.27  2.2.27  2.2.28  2.2.28  2.2.28  2.2.29  3) PC amount for new Inlet & coultet pipework at studge draw-off, sold pump complete with electrical motor or studge draw-off, 8 l Vs @ H = no 2  2.2.29  3) PC amount for new Inlet & coultet pipework at studge draw off pumps (included in Item 2.1.2.10)  b) TT2  1) IXSB KWP - F150-315 pump with electrical motor & frame with 7.5 kW electrical motor or for studge of ready off pumps (included in Item 2.1.2.10)  2.2.30  2.31  2.32  2.33  2.34  2.35  2.35  2.36  2.36  2.37  3.37  3.37  3.38  All new & refurbished equipment that includes: a) 600 mm Wide SS 304L (aright ray for screenings) b) 4 x Handstops & france and since a serious including mounting obts on B and and a stanchino handralis d) 4 x Step bridge landing d) 2 x X xysten probe with mounting equipment				UNII	QIT	KAIE	ANIOUNI
refurbish a) TTI  1) New Gorman Rupp T4A3S - B./FM Series 5 (existing) (Cornell or Netzsch) self priming surface mount studge pump complete with electrical motor. Vebil drive and mounting frame - with 15 kW electrical motor amount studge pump complete with electrical motor or sound studge pump complete with electrical motor or sounded or with 5 kW electrical motor for studge draw-off. 8 l vs @ H = 10 m o 2  2.2.27 15 m o 2  3) PC amount for new intel & coulet pipework at studge draw off pumps (included in Item 2.1.2.10)  b) TT2  1) KSB KWP - F150-315 pump with electrical motor & frame with 7.5 kW electrical motor frame & 1.55 kW motor of pumps (included in Item 2.1.2.10)  2.2.30 2) Rate Only  2.2.31 Pc amount for new intel & coultet pipework at studge draw off pumps (included in Item 2.1.2.12)  Prelliminary allowance for replacing cornoded pipework beyond repair, valves, instrumentation etc.  2.2.32 Confractor's markup on item above % 800 000  1) Equipment at Inlet Works -TT1 & TT2  2.3.1 All new & refurbished equipment that includes:  a) 800 mm Wide SS 304L drip tray for screenings b) 4 x Handstops & frames c) Flow measuring equipment  2) Aeration Tanks  TT1  2.3.2 All new & refurbished equipment that includes:  a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting botts b) Mounting and adjusting botts & ruts c) Ball and stanction handralls d) 4 x Step bridge landing d) 2 x Oxygon probes with mounting equipment e) Aration Tanks  TT2  2.3.3 All new & refurbished equipment that includes:  a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting botts b) Mounting and adjusting botts & ruts c) Ball and stanction handralls d) 4 x Step bridge landing d) 2 x Oxygon probes with mounting equipment e) Aration Tanks  T10  All new & refurbished equipment that includes: b) Mounting and adjusting botts b) Mounting and adjusting botts b) Mounting and adjusting bot			5 - Pumpstation: Activated sludge re-circulation				
1) New Gorman Rupp T4A3S - B /FM Series 5 (existing) (Cornell or Netzsch) self priming surface mount studge pump complete with electrical motor, V- belt drive and mounting frame with 15 kW electrical motor 2) New Gorman Rupp, Cornell or Netzsch self priming surface mount studge pump complete with electrical motor for sludge draw-off, 8 Us @ H = 16 m 3) PC amount for new inlet & outlet pipework at sludge draw off pumps (included in Item 2.1.2.10) b) TT2  2.2.28  1) KSB KWP - F150-315 pump with electrical motor & frame with 7.5 kW electrical motor & frame wit							
(existing) (Cornell or Netizech) self priming surface mount studge pump complete with electrical motor. V-bell drive and mounting frame - with 15 kW electrical motor or 2) New Gorman Rupp, Cornell or Netzsch self priming surface mount studge pump complete with electrical motor for studge draw-off. 8 is 6g 1 = 1 in no 2 in 16 in 3) PC amount for new inlet & outlet pipework at studge draw off pumps (included in Item 2.1.2.10)  b) TT2  1) KSB KWP - F150-315 pump with electrical motor & frame with 7.5 kW electrical motor frame with 7.5 kW electrical motor & frame			a) TT1				
surface mount sludge pump complete with electrical motor for sludge draw-off, 8 l/s @ H = 16 m	2.2.26		(existing) (Cornell or Netzsch) self priming surface mount sludge pump complete with electrical motor, V- belt drive and mounting frame - with 15 kW electrical	no	2		Rate Only
2.2.28 draw off pumps (Included in Item 2.1.2.10) b) TT2  1) KSB KWP - F150-315 pump with electrical motor & frame with 7.5 kW electrical motor 2) KSB KWP - F50-200 pump with electrical motor & frame & 1.55 kW motor 2) KSB KWP - F50-200 pump with electrical motor & frame & 1.55 kW motor 3) PC amount for new inlet & outlet pipework at sludge draw off pumps (Included in Item 2.1.2.12)  Preliminary allowance for replacing corroded pipework beyond repair, valves, instrumentation etc.  2.31  Contractor's markup on item above  LOADING, TRANSPORTING EQUIPMENT TO SITE & OFF-LOAD  1) Equipment at Inlet Works -TT1 & TT2  2.3.1  All new & refurbished equipment that includes: a) 600 mm Wide SS 304L drip tray for screenings b) 4 x Handstops & frames c) Flow measuring equipment 2) Aeration Tanks  A TT1  2.3.2  All new & refurbished equipment that includes: a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handralis d) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts with mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3  All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3  All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts & b) Mounting and adjusting bolts & nuts c) Ball and stanchion handralis b) Mounting pand adjusting bolts & nuts c) Ball and stanchion handralis o) Step bridge landing o) Step bridge landing o) Step bridge landing o) Step bridge landing	2.2.27		surface mount sludge pump complete with electrical motor for sludge draw-off, 8 l/s @ H =	no	2		
1) KSB KWP - F150-315 pump with electrical motor & frame with 7.5 kW electrical motor & frame with 7.5 kW electrical motor & frame with 7.5 kW electrical motor & frame & 1.55 kW motor  2) KSB KWP - F50-200 pump with electrical motor & frame & 1.55 kW motor  3) PC amount for new inlet & cutlet pipework at studge draw off pumps (included in Item 2.1.2.12)  Preliminary allowance for replacing corroded pipework beyond repair, valves, instrumentation etc.  Contractor's markup on item above  LOADING, TRANSPORTING EQUIPMENT TO SITE & OFF-LOAD  1) Equipment at Inlet Works -TT1 & TT2  All new & refurbished equipment that includes: a) 900 mm Wide SS 304L drip tray for screenings b) 4 x Handslotps & frames c) Flow measuring equipment 2) Aeration Tanks  A TT1  2.3.2 All new & refurbished equipment that includes: a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handralis d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3 All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3 All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & tusts o) Ball and stanchion handralis b) Mounting and adjusting bolts & tusts o) Ball and stanchion handralis b) Mounting and adjusting bolts & tusts o) Ball and stanchion handralis o) By Bothing and adjusting bolts & tusts o) Ball and stanchion handralis o) By bridge landing	2.2.28						
2.2.29   frame with 7.5 kW electrical motor   2   Rate Only   2   XSB KWP - F50-200 pump with electrical motor & frame & 1.55 kW motor   3) PC amount for new inlet & outlet pipework at sludge draw off pumps (Included in Item 2.1.2.12)   Preliminary allowance for replacing corroded pipework beyond repair, valves, instrumentation etc.   PC sum   1   800 000.00   2.2.32   Contractor's markup on item above   %   800 000   LOADING, TRANSPORTING EQUIPMENT TO SITE & OFF1-LOAD   1) Equipment at Inlet Works -TT1 & TT2   2.3.1   All new & refurbished equipment that includes:   a) 600 mm Wide SS 304L drip tray for screenings   b) 4 x Handstops & frames   c) Flow measuring equipment   2) Aeration Tanks   TT1   2.3.2   All new & refurbished equipment that includes:   a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts   b) Mounting and adjusting bolts & nuts   c) Ball and stanchion handralis   d) 4 x Step bridge landing   d) 2 x Oxygen probes with mounting equipment   e) Aeration tank outlet baffle    B   TT2   All new & refurbished equipment that includes:   a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts   b) Mounting and adjusting bolts & nuts   c) Ball and stanchion handralis   c) Ball and stanchion handralis   d) 3 step bridge landing   d) 2 x Oxygen probes with mounting equipment   e) Aeration tank outlet baffle   TT2   All new & refurbished equipment that includes:   a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts   b) Mounting and adjusting bolts & nuts   c) Ball and stanchion handralis   d) 3 step bridge landing   d) 2 x Oxygen probes by the mounting bolts   b) Mounting and adjusting bolts & nuts   c) Ball and stanchion handralis   d) 3 step bridge landing   d) 2 x Oxygen probes by the mounting bolts   d) Step bridge landing   d) 2 x Oxygen probes by the mounting bolts   d) 3 step bridge landing   d) 3 x by bridge landing   d) 3 tep bridge landing   d) 3 x by bridge landing   d) 3 x by bridge			b) TT2				
2.2.30   frame & 1.55 kW motor   no   2   Rate Only   3) PC amount for new inlet & outlet pipework at sludge draw off pumps (Included in Item 2.1.2.12)   Preliminary allowance for replacing corroded pipework beyond repair, valves, instrumentation etc.   PC sum   1   800 000.00   2.2.32   Contractor's markup on item above   %   800 000	2.2.29			no	2		Rate Only
draw off pumps (Included in Item 2.1.2.12)  Preliminary allowance for replacing corroded pipework beyond repair, valves, instrumentation etc.  2.2.32  Contractor's markup on item above  LOADING, TRANSPORTING EQUIPMENT TO SITE & OFF-LOAD  1) Equipment at Inlet Works -TT1 & TT2  2.3.1  All new & refurbished equipment that includes: a) 600 mm Wide SS 304L drip tray for screenings b) 4 x Handstops & frames o; Flow measuring equipment  2) Aeration Tanks  A TT1  2.3.2  All new & refurbished equipment that includes: a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stancthion handrails d) 4 x Step bridge landing di) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3  All new & refurbished equipment that includes: sum 1  All new & refurbished equipment that includes: sum 1  All new & refurbished equipment that includes: sum 1  a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 step bridge landing of 3 step bridge landing	2.2.30			no	2		Rate Only
beyond repair, valves, instrumentation etc.  Contractor's markup on item above  LOADING, TRANSPORTING EQUIPMENT TO SITE & OFF-LOAD  1) Equipment at Inlet Works -TT1 & TT2  All new & refurbished equipment that includes:  a) 600 mm Wide SS 304L drip tray for screenings b) 4 x Handstops & frames c) Flow measuring equipment  2) Aeration Tanks  TT1  2.3.2 All new & refurbished equipment that includes:  a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  TT2  2.3.3 All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 the bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  TT2  2.3.3 Sep bridge landing d) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing d) 3 x Sep bridge landing d) 3 x Sep bridge landing							
2.3  LOADING, TRANSPORTING EQUIPMENT TO SITE & OFF-LOAD  1) Equipment at Inlet Works -TT1 & TT2  2.3.1  All new & refurbished equipment that includes:  a) 600 mm Wide SS 304L drip tray for screenings b) 4 x Handstops & frames c) Flow measuring equipment  2) Aeration Tanks  A TT1  2.3.2  All new & refurbished equipment that includes:  a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3  All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing	2.2.31			PC sum	1	800 000.00	800 000.00
2.3.1 OFF-LOAD  1) Equipment at Inlet Works -TT1 & TT2  2.3.1 All new & refurbished equipment that includes:  a) 600 mm Wide SS 304L drip tray for screenings b) 4 x Handstops & frames c) Flow measuring equipment  2) Aeration Tanks  TT1  2.3.2 All new & refurbished equipment that includes:  a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handralis d) 4 x Step bridge landing d) 2 x Oxyqen probes with mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3 All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handralis d) 3 Step bridge landing	2.2.32		Contractor's markup on item above	%	800 000		
All new & refurbished equipment that includes:  a) 600 mm Wide SS 304L drip tray for screenings b) 4 x Handstops & frames c) Flow measuring equipment  2) Aeration Tanks  TT1  2.3.2 All new & refurbished equipment that includes: a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3 All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing	2.3						
a) 600 mm Wide SS 304L drip tray for screenings b) 4 x Handstops & frames c) Flow measuring equipment  2) Aeration Tanks  TT1  2.3.2 All new & refurbished equipment that includes: sum 1  a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  B  TT2  2.3.3 All new & refurbished equipment that includes: sum 1  a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing			1) Equipment at Inlet Works -TT1 & TT2				
b) 4 x Handstops & frames c) Flow measuring equipment  2) Aeration Tanks  TT1  2.3.2 All new & refurbished equipment that includes: a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  TT2  2.3.3 All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing	2.3.1		All new & refurbished equipment that includes:	sum	1		
A TT1  2.3.2 All new & refurbished equipment that includes:  a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  TT2  2.3.3 All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing			b) 4 x Handstops & frames				
All new & refurbished equipment that includes:  a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  TT2  2.3.3  All new & refurbished equipment that includes: a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing			2) Aeration Tanks				
a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment e) Aeration tank outlet baffle  B TT2  2.3.3 All new & refurbished equipment that includes: sum 1  a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing	Α		π1				
All new & refurbished equipment that includes:  a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing	2.3.2		a) 4 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 4 x Step bridge landing d) 2 x Oxygen probes with mounting equipment	sum	1		
a) 3 x Vertical shaft, surface mount, slow speed surface aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing	В		ТТ2				
aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing	2.3.3		All new & refurbished equipment that includes:	sum	1		
e) Aeration tank outlet baffle			aerators including mounting bolts b) Mounting and adjusting bolts & nuts c) Ball and stanchion handrails d) 3 Step bridge landing d) 2 x Oxygen probes with mounting equipment				
C TT1 &TT2 3 - Suction Lift Clarifiers	С						
TOTAL CARRIED FORWARD	TOTAL CA	RRIED FOR	RWARD				

C.28

# REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1) CONTRACT No: UGU-07-1683-2024 SECTION 2: WWTW MECHANICAL WORKS

ITEM	: WWTW MECHANICAL WORKS REF DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD	<u>, C.VIII</u>	<u> </u>	IVAIL	ANIOUNI
2.3.4	All new & refurbished equipment that includes:	sum	1		
	<ul><li>a) 4 x Centre bearing assembly</li><li>b) 4 x Sliprings</li></ul>				
	c) 4 x Centre sludge transfer tank, siphon, sludge collecting tank and all pipework & scrapers d) Refurbished bridge section & spider support structure e) 4 x Drive motor/gearbox & drive wheel f) 4 x Siphon vacuum pump				
2.3.5	Alternative: Complete new halfbridge with all the components (provisional)	no	4		Rate Only
2.3.6	V-notch peripheral overflow weir & fixing bolts	m	228		
2.4	4 - Chlorination Equipment				
2.4.1	Complete chlorination dosing system	Sum	1		
2.5	5 - Pumpstation				
	△ RAS pumps				
	π1				
2.5.1	a) 2 x Gorman Rupp T4A3S - B /FM series 5 & pipework	sum	1		
	тт2				
2.5.2	a) 2 x KSB KWP - F150-315 pump with 7.5 kW motor & pipework	sum	1		
	Sludge draw-off pumps				
	π1				
2.5.3	a) 2 x Gorman Rupp/Cornell/NETZSCH & pipework	sum	1		
	π2				
	a) 2 x KSB KWP - F50-200 pump with 1.55 kW electrical motor & pipework	sum	1		
2.6	INSTALLATION OF EQUIPMENT ON SITE				
	1) Equipment at Inlet Works				
2.6.1	600 mm Wide SS 304L drip tray for screenings	no	1		
2.6.2	Flow measuring equipment	sum	1		
	2) Aeration Tanks				
A	π1				
2.6.3	Aerators, level & adjust	no	4		
2.6.4	Ball and stanchion handrails	m	10		Rate Only
2.6.5	3 Step bridge landing	no	4		
2.6.6	Oxygen probes with mounting equipment	no	2		
2.6.7	Aeration tank outlet baffle	no	1		
TOTAL CA	RRIED FORWARD				

C.29

REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1)
CONTRACT No: UGU-07-1683-2024
SECTION 2: WWTW MECHANICAL WORKS

ITEM REF

ITEM	P: WWTW MECHANICAL WORKS REF DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BALANCE	BROUGHT FORWARD				
В	ТТ2				
2.6.8	Aerators, level & adjust	no	3		
2.6.9	Ball and stanchion handrails	m	20		Rate Only
2.6.10	3 Step bridge landing	no	3		
2.6.11	Oxygen probes with mounting equipment	no	2		
2.6.12	Aeration tank outlet baffle	no	1		
С	TT1 & TT2				
	3 - Suction Lift Clarifiers				
2.6.13	Complete bridge & all accessories	no	4		
2.6.14	Alternative: Complete new halfbridge with all the components (provisional)	no	4		Rate Only
2.6.15	V-notch peripheral overflow weir ± 57 m/tank	no	4		
	4 - Chlorination Equipment				
2.6.16	Complete chlorination dosing system	Sum	1		
	5 - Pumpstation				
	A RAS pumps				
	π1				
2.6.17	Gorman Rupp T 4A3S - B /FM with electrical motor, V-belts on mounting frame & pipework.	sum	1		
	A RAS pumps				
	Π2				
2.6.18	2 x KSB KWP - F150-315 pump & pipework	sum	1		
	Sludge draw-off pumps				
	π1				
2.6.19	2 x Gorman Rupp/Cornell/NETZSCH & pipework	sum	1		
	тт2				
2.6.20	2 x KSB KWP - F50-200 pump & pipework	sum	1		
2.7	Commissioning & Testing of Installed Equipment				
	1) Equipment at Inlet Works				
2.7.1	Flow measuring equipment	sum	1		
	2) Aeration Tanks				
Α	π1				
2.7.2	Aerators - Dry run & commissioning	no	4		
2.7.3	Oxygen probes	no	2		
TOTAL CA	RRIED FORWARD		l		

# C.62 REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1) CONTRACT No: UGU-07-1683-2024 SECTION 9: EFFLUENT MAIN

SECTION	9 : EFFLUE		LINUT	OTV	DATE	AMOUNT
ITEM BALANCE	REF BROUGHT	DESCRIPTION FORWARD	UNIT	QTY	RATE	AMOUNT
В	SABS 1200 L	SECTION B : MEDIUM PRESSURE PIPELINES (RETICULATION)				
	1200 L					
9.10.		PIPEWORK				
	8.2.1	Lay, bed (Class B as per drawing LB1-1(b)of SABS 1200 LB), weld, test and disinfect complete the following:				
9.10.1		i) 450mm OD API Grade x42 cement mortar lined 3LPE coated x 6mm thick steel pipes (PN40)	m	500		
9.10.2		ii) 600mm OD API Grade x42 cement mortar lined 3LPE coated x 6mm thick steel pipes (PN40)	m	2500		
9.10.3		i) 450mm diameter oPVC Class 16	m	1		Rate Only
9.10.4		ii) 630mm diameter oPVC Class 16	m	1		Rate Only
9.10.1		i) 450mm diameter oPVC Class 20	m	2000		
9.10.2		i) 630mm diameter oPVC Class 20	m	400		
9.11		SPECIALS AND FITTINGS				
	8.2.2	Extra-over item 3.1.1 for laying and bedding of the following specials complete with couplings, gaskets, grade 8.8 nuts and bolts where required.				
		STEEL GROOVED BENDS				
9.3.2.1		i) 600mm PN40 Flanged Steel 90° bend	No	4		
9.3.2.2		ii) 600mm PN40 Flanged Steel 45° bend	No	4		
9.3.2.3		iii) 600mm PN40 Flanged Steel 22.5° bend	No	5		
9.3.2.4		iv) 600mm PN40 Flanged Steel 11.25° bend	No	10		
9.3.2.5		v) 450mm PN40 Flanged Steel 45° bend	No	4		
9.3.2.6		vi) 450mm PN40 Flanged Steel 22.5° bend	No	4		
9.3.2.7		vii) 450mm PN40 Flanged Steel 11.25° bend	No	5		
		oPVC BENDS				
9.3.2.1		i) 450mm Ø 90° bend, class 34	No	1		Rate Only
9.3.2.2		ii) 450mm Ø 45° bend, class 34	No	1		Rate Only
9.3.2.3		iii) 450mm Ø 22.5° bend, class 34	No	1		Rate Only
9.3.2.4		vi) 450mm Ø 11.25° bend, class 34	No	1		Rate Only
9.3.2.5		i) 630mm Ø 90° bend, class 34	No	1		Rate Only
9.3.2.6		ii) 630mm Ø 45° bend, class 34	No	1		Rate Only
9.3.2.7		iii) 630mm Ø 22.5° bend, class 34	No	1		Rate Only
	8.2.2	Supply, lay and bed of the following specials complete with couplings, gaskets, SS 304 nuts and grade 8.8 bolts where required.				
9.3.3		STEEL REDUCERS				
9.3.3.1		i) 600mm to 450mm NB flanged reducers	No	2		
9.3.3		TEES				
9.3.3.1		i) 600mm diameter cast iron equal tee PN40	No	2		
TOTAL CA	ARRIED FOR	RWARD				

REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1)
CONTRACT No: UGU-07-1683-2024
SECTION 15: GRAVITY MAIN PUMPSTATION A TO PUMPSTATION 3A

ITEM	REF	TY MAIN PUMPSTATION A TO PUMPSTATION 3A DESCRIPTION	UNIT	QTY	RATE	AMOUNT
15		SECTION 15: GRAVITY MAIN PUMPSTATION A TO PUMPSTATION 3A				
15 A		Earthworks				
A	SABS	Lattiworks				
	1200 DB	SECTION 2 : PIPE TRENCHES				
15.1		SITE CLEARANCE				
	8.3.1	Site Clearance removal of topsoil				
15.1.1		a)Clear vegetation and trees of girth 1m.	m	963		
15.1.2		b) Remove Topsoil to 150mm depth	m2	963		
15.1.3		c) Topsoiling	m2	963		
15.1.4		EXCAVATION				
15.1.5	8.3.2(a)	Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for uPVC pipes from 110mm up to 200 mm diam. for total trench depth:				
15.1.5.1		a) Exceeding 0,0 m but not exceeding 1,0 m (labour intensive)	m	96		
15.1.5.2		b) Exceeding 1,0 m but not exceeding 2,0 m (labour intensive and including shoring/battering as applicable/dewatering)	m	433		
15.1.5.3		c) Exceeding 2,0 m but not exceeding 3,0 m (machine exc. and including shoring/battering as applicable/dewatering)	m	289		
15.1.5.4		d) Exceeding 3,0 m but not exceeding 4,0 m (machine exc. and including shoring/battering as applicable/dewatering)	m	96		
15.1.5.5		e) Exceeding 4,0 m but not exceeding 5,0 m (machine exc. and including shoring/battering as applicable/dewatering)	m	48		
15.1.6	8.3.2(b)	Extra over 15.1.5-15.1.5.5 for:-				
15.1.6.1	8.3.2 (b)	1) Intermediate excavation (provisional)	m³	191		
15.1.6.2		2) Hard rock (Chemical Blasting)	m³	1017		
15.1.6.3	8.3.2 (b)	Boulder Class A excavation (provisional)	m³	254		
15.1.6.4	8.3.2 (b)	Boulder Class B excavation (provisional)	m³	64		
15.1.6.5	8.3.2	Hand excavation and backfill where ordered by the Engineer	m³	65		
15.1.7	8.3.2(c)	Excavate and dispose of unsuitable material from trench bottom (Provisional)	m³	127		
15.1.8		Excavation across surfaced roads (Provisional)	m³	127		
15.1.9		EXCAVATION. ANCILLARIES Make up deficiency in backfill material: (Provisional)				
15.1.10	8.3.3.1(a)	a) From other necessary excavations on site	m³	228		
15.1.11	8.3.3.1(c)	b) By importation from commercial or off-site sources selected by the Contractor	m³	1297		
15.1.12	8.3.3.3	c) Compaction in road reserves, only where instructed in writing by the Engineer.	m³	127		
TOTAL CA	ARRIED FOI	RWARD		I	II.	

C.108

# REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1) CONTRACT No: UGU-07-1683-2024 SECTION 16: GRAVITY SEWER RETICULATION

ITEM	REF	TY SEWER RETICULATION DESCRIPTION	UNIT	QTY	RATE	AMOUNT
16		SECTION 16: GRAVITY SEWER RETICULATION				
Α	SABS 1200 DB	SECTION 2 : PIPE TRENCHES				
		SITE CLEARANCE				
16.1	8.3.1	Site Clearance removal of topsoil				
		a)Clear vegetation and trees of girth 1m.				
			m	5300		
16.1.1		b) Remove Topsoil to 150mm depth	m2	5300		
16.1.2		c) Topsoiling	m2	5300		
16.1.3		EXCAVATION				
16.1.4	8.3.2(a)	Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for uPVC pipes from 110mm up to 200 mm diam. for total trench depth:				
16.1.5		a) Exceeding 0,0 m but not exceeding 1,0 m (labour intensive)	m	530		
16.1.5.1		b) Exceeding 1,0 m but not exceeding 2,0 m (labour intensive and including shoring/battering as applicable/dewatering)	m	2385		
16.1.5.2		c) Exceeding 2,0 m but not exceeding 3,0 m (machine exc. and including shoring/battering as applicable/dewatering)	m	3590		
16.1.5.3		d) Exceeding 3,0 m but not exceeding 4,0 m (machine exc. and including shoring/battering as applicable/dewatering)	m	530		
16.1.5.4 16.1.5.5	8.3.2(b)	e) Exceeding 4,0 m but not exceeding 5,0 m (machine exc. and including shoring/battering as applicable/dewatering) Extra over 2.2.1 for:-	m	265		
16.1.6	8.3.2 (b)	1) Intermediate excavation (provisional)	m³	1049		
16.1.6.1		2) Hard rock (Chemical Blasting)	m³	7798		
16.1.6.2	8.3.2 (b)	Boulder Class A excavation (provisional)	m³	1399		
16.1.6.3	8.3.2 (b)	Boulder Class B excavation (provisional)	m³	350		
16.1.6.4	8.3.2	Hand excavation and backfill where ordered by the Engineer	m³	350		
16.1.6.5	8.3.2(c)	Excavate and dispose of unsuitable material from trench bottom (Provisional)	m³	1399		
16.1.7		Excavation across surfaced roads (Provisional)	m³	350		
16.1.8		EXCAVATION. ANCILLARIES Make up deficiency in backfill material: (Provisional)				
16.1.9	8.3.3.1(a)	a) From other necessary excavations on site	m³	1260		
		b) By importation from commercial or off-site sources selected by the Contractor				
16.1.10	8.3.3.1(c)		m³	9007		
16.1.11	8.3.3.3	c) Compaction in road reserves, only where instructed in writing by the Engineer.	m³	203		
16.1.12		EXISTING SERVICES				
TOTAL C	ARRIED FO	RWARD		1	II.	

# C.110 REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1) CONTRACT NO: UGU-07-1683-2024 SECTION 16: GRAVITY SEWER RETICULATION ITEM | RFF | ----

ITEM	16 : GRAVII	TY SEWER RETICULATION DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		FORWARD	0	<b>Q.</b>	10412	AMOONI
		PROVIDE CAST INSITU EDGE RESTRAINTS ALONG EDGE WHERE NO KERB IS PRESENT				
16.2.7.13		a) Cast insitu edge restraint	m³	225		
16.2.7.14		CUT UNITS TO FIT EDGE RESTRAINTS	m	211		
		KERB AND CHANNEL				
		CONCRETE KERBING AND CHANNELLING				
16.2.7.15		Fig 6 Precast concrete kerb complete with 300mm cast insitu channel and continuous concrete haunching	m	2325		
16.2.7.16		Construct 12m wide cast insitu concrete vehicular scoop	No.	3		
	SANS 1200C	Retaining Structures formed of filled gabion boxes and mattresses	m³	1080		
16.3	SABS 1200 LB	SECTION 3 : BEDDING (PIPES)				
		PROVISION OF BEDDING				
16.3.1	8.2.1	Available from trench within 0,5 km (Subclause 3.4.1)				
16.3.2		a) Selected granular bedding material	m³	115		
		b) Selected fill blanket material	m³	127		
16.3.3	8.2.2.3	Provision of bedding from designated borrow pits (unlimited freehaul) and place in stockpile at 100m intervals along trench (Provisional items).				
16.3.4		a) Selected granular material	m³	57		
		b) Selected fill material	m³	64		
16.3.5	8.2.2.3	From commercial sources				
16.3.6		a) Selected granular material	m³	1419		
16.3.7		b) Selected fill material	m³	1517		
16.3.8		a) stone bedding (19mm stone, wrapped in A4 bidum)	m³	795		
TOTAL CA	ARRIED FOR	RWARD				

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REFURBISHMENT AND UPGRADE OF MARGATE STORM-DAMAGED INFRASTRUCTURE, WASTEWATER TREATMENT WORKS AND EFFLUENT MAIN (PHASE1)

CONTRACT No: UGU-07-1683-2024
SECTION 16: GRAVITY SEWED BETION ATION

CECTION	16: GRAVITY	CEWED	DETICILL	ATION
SECTION	16 : GRAVII Y	SEWER	RETICUL	AHON.

ITEM BALANCE	REF	DESCRIPTION FORWARD	UNIT	QTY	RATE	AMOUNT
В	SABS	SECTION 4: SEWERS				
16.4.	1200 LD	PIPEWORK				
10.4.	1200 LD	a) Supply, lay, joint and bed (flexible bedding) and test				
	8.2.1	pipelines:				
16.4.1.1		i) 110mm Ø uPVC Class 34	m	50		
16.4.1.2		ii) 160mm Ø uPVC Class 34	m	1500		
16.4.1.3		iii) 200mm Ø uPVC Class 34	m	2750		
16.4.1.4		iv) 315mm Ø uPVC Class 34	m	3000		
	8.2.2	Extra-over items 8.22.6 - 8.22.10 :				
16.4.2		160mm Ø Bends	No.	35		
16.4.3		200mm Ø Bends	No.	35		
16.4.4		3150mm Ø Junctions	No.	5		
4.2	1200 LD 8.2.3	MANHOLES, ETC.				
		Manholes to Dwg No. 28001/2/9901 complete with concrete cover and frame, for depths over and up to				
16.4.5.1		i) 0,0 m to 1,0 m	No.	16		
16.4.5.2		ii) 1,0 m to 2,0 m	No.	6		
16.4.5.3		iii) 2,0 m to 3,0 m	No.	6		
16.4.5.4		iv) 3,0 m to 4,0 m	No.	6		
16.4.5.5		v) 4,0 m to 5,0 m	No.	6		
16.4.5.1	8.2.4	Extra-over item for construction of backdrops and ramps including extra excavation, formwork, joints, pipe junctions etc., to Dwg No. 28001/2/9901. for depths over and up to :				
16.4.5.2		0,2 m - 0,5 m (ramp)	No.	8		
16.4.5.3		0,5 m - 1,0 m	No.	4		
16.4.5.4		1,0 m to 2,0 m	No.	4		
16.4.5.5		2,0 m to 3,0 m	No.	4		
16.4.6.5		3,0 m to 4,0 m	No.	4		
ļ		Extra-over item for heavy duty cover and frame in road reserves.				
16.4.7		a) Type 2A Cast Iron	No.	40		
16.4.7.1	8.2.6	Erf Connections Direct				
16.4.8		Inspection Eyes	No.	19		
16.4.9		Inspection Chambers	No.	8		
TOTAL CA	RRIED FO	RWARD		<u> </u>	<u> </u>	