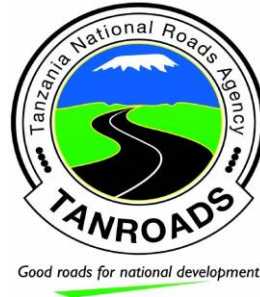


THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION



CONSTRUCTION OF DAR ES SALAAM BUS RAPID TRANSIT (BRT) INFRASTRUCTURE –
PHASE 3: LOT 1 – ROAD WORKS (23.33KM)

TENDER NO. AE/001/2019-20/HQ/W/03

Addendum No. 4 to the Bidding Documents

Date: 19th October 2020

Addendum No. 4 to the Bidding Documents is issued in accordance with Instructions to Bidders, Clause 8.1 to effect changes to the Bidding Documents and will become binding document, overriding the original provisions to the applicable extent indicated. All other items and conditions of the original Bidding Documents remain unchanged. The following provisions of the Bidding Documents are amended as follows:

SECTION II: BID DATA SHEET (BDS)

Item No. 1

Replace

ITB Clause 22.1	The deadline for bid submission is: Date: 21st October 2020
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With

ITB Clause 22.1	The deadline for bid submission is: Date: 30th October 2020
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Item No. 2

Replace

ITB Clause 25.1	Date: 21st October 2020
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With

ITB Clause 25.1	Date: 30th October 2020
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Part 1: SECTION IV: BIDDING FORMS - BILL OF QUANTITIES (BOQ)

Item No. 3

Replace:

	<u>PART 2: DN 250 (10") Maktaba Street - Morogoro Road</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
2.1	DN 250 Operating Pressure at 10 bars				
	PIPE MATERIAL				
	Pipe material : Select Ferrous Materials				
	Pipe Thickness				
	Diameter : OD Internal				
	Yield Strength				
	Grade if Steel				
	0.2% Proof Stress if D.I.				
	Elastic Modulus: Short Term				
	Long Term				
	LINING				
	Material				
	Brand Name if Epoxy				
	Thickness				
	COATING				
	PIPE MATERIAL				
2.1.1	DN 250 pipeline Class S3 bedding, cover not exceeding 1.5 m	m	950		
2.1.2	EO item 3.1.1 for concrete bed and surround	m	100		
2.1.3	EO item 3.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
2.1.4	EO item 3.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
2.1.5	EO item 3.1.1 for excavation in coral	m ³	100		
2.1.6	EO item 3.1.1 for reinstatement of bitumen surfaced roads	m	100		
2.1.7	EO item 3.1.1 for reinstatement of murrum surfaced roads	m	100		
2.1.8	EO item 3.1.1 for reinstatement of paths and driveway	m	100		
2.1.9	EO item 3.1.1 for external protection with tape wrapping	m	100		
	<u>BENDS</u>				
	FITTINGS MATERIAL				
2.1.10	DN 250 11 1/40	Nr	10		
2.1.11	DN 250 22 1/20	Nr	8		
2.1.12	DN 250 45 0	Nr	8		
2.1.13	DN 250 90 0	Nr	5		
	Sub-Total Carried Forward				

With:

	<u>PART 2: DN 250 (10") Maktaba Street - Morogoro Road</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
2.1	DN 250 Operating Pressure at 10 bars				
	<u>PIPE MATERIAL</u>				
	Pipe material : Select Ferrous Materials				
	Pipe Thickness				
	Diameter : OD Internal				
	Yield Strength				
	Grade if Steel				
	0.2% Proof Stress if D.I.				
	Elastic Modulus: Short Term				
	Long Term				
	<u>LINING</u>				
	Material				
	Brand Name if Epoxy				
	Thickness				
	<u>COATING</u>				
	<u>PIPE MATERIAL</u>				
2.1.1	DN 250 pipeline Class S3 bedding, cover not exceeding 1.5 m	m	950		
2.1.2	EO item 2.1 for concrete bed and surround	m	100		
2.1.3	EO item 2.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
2.1.4	EO item 2.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
2.1.5	EO item 2.1or excavation in coral	m ³	100		
2.1.6	EO item 2.1 for reinstatement of bitumen surfaced roads	m	100		
2.1.7	EO item 2.1 for reinstatement of murrum surfaced roads	m	100		
2.1.8	EO item 2.1 for reinstatement of paths and driveways	m	100		
2.1.9	EO item 2.1 for external protection with tape wrapping	m	100		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
2.1.10	DN 250 11 1/40	Nr	10		
2.1.11	DN 250 22 1/20	Nr	8		
2.1.12	DN 250 45 0	Nr	8		
2.1.13	DN 250 90 0	Nr	5		
	Sub-Total Carried Forward				

Item No. 4

Replace:

	<u>PART 3: DN 200 (8") Maktaba Street - Bibi Titi Mohamed (In Both Sides)</u>			
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning			
3.1	DN 200 Operating Pressure at 10 bars			
	<u>PIPE MATERIAL</u>			
	Pipe material : Select Ferrous Materials			
	Pipe Thickness			
	Diameter : OD Internal			
	Yield Strength			
	Grade if Steel			
	0.2% Proof Stress if D.I.			
	Elastic Modulus: Short Term ...Long Term ...			
	<u>LINING</u>			
	Material			
	Brand Name if Epoxy			
	Thickness			
	<u>COATING</u>			
	<u>PIPE MATERIAL</u>			
3.1.1	DN 200 pipeline Class S3 bedding, cover not exceeding 1.5m	m	2,000	
3.1.2	EO item 4.1.1 for Class 3 bedding	m	100	
3.1.3	EO item 4.1.1 for concrete bed and surround	m	100	
3.1.4	EO item 4.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100	
3.1.5	EO item 4.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100	
3.1.6	EO item 4.1.1 for excavation in coral	m ³	100	
3.1.7	EO item 4.1.1 for reinstatement of bitumen surfaced roads	m	100	
3.1.8	EO item 4.1.1 for reinstatement of murrum surfaced roads	m	100	
3.1.9	EO item 4.1.1 for reinstatement of paths and driveways	m	150	
3.1.10	EO item 4.1.1 for external protection with tape wrapping	m	100	
	Sub-Total Carried Forward			

With:

	<u>PART 3: DN 200 (8") Maktaba Street - Bibi Titi Mohamed (In Both Sides)</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
3.1	DN 200 Operating Pressure at 10 bars				
	<u>PIPE MATERIAL</u>				
	Pipe material : Select Ferrous Materials				
	Pipe Thickness				
	Diameter : OD Internal				
	Yield Strength				
	Grade if Steel				
	0.2% Proof Stress if D.I.				
	Elastic Modulus: Short Term ...Long Term ...				
	<u>LINING</u>				
	Material				
	Brand Name if Epoxy				
	Thickness				
	<u>COATING</u>				
	<u>PIPE MATERIAL</u>				
3.1.1	DN 200 pipeline Class S3 bedding, cover not exceeding 1.5m	m	2,000		
3.1.2	EO item 3.1 for Class 3 bedding	m	100		
3.1.3	EO item 3.1 for concrete bed and surround	m	100		
3.1.4	EO item 3.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
3.1.5	EO item 3.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
3.1.6	EO item 3.1 for excavation in coral	m ³	100		
3.1.7	EO item 3.1 for reinstatement of bitumen surfaced roads	m	100		
3.1.8	EO item 3.1 for reinstatement of murrum surfaced roads	m	100		
3.1.9	EO item 3.1 for reinstatement of paths and driveways	m	150		
3.1.10	EO item 3.1 for external protection with tape wrapping	m	100		
	Sub-Total Carried Forward				

Item No. 5

Replace:

	<u>PART 4: DN 300mm Maktaba Street - Kamata (in both sides) via Bibi Titi Mohamed</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
4.1	DN 300 Operating Pressure at 10 bars				
4.1.1	DN 300 pipeline Class S4 bedding, cover not exceeding 1.5	m	4,000		
4.1.2	EO for DN 300 pipe at HDD crossing	m	30		
4.1.3	EO item 11.1 for Class S4 bedding	m	500		
4.1.4	EO item 11.1 for concrete bed and surround	m	100		
4.1.5	EO item 11.1 for pipes with cover exceeding 1.5 m but not exceeding 2.5 m	m	400		
4.1.6	EO item 11.1 for pipes with cover exceeding 2.5 m not exceeding 3.5m	m	100		
4.1.7	EO item 11.1 for excavation in rock	m ³	100		
4.1.8	EO item 11.1 for excavation in coral	m ³	100		
4.1.9	EO item 11.1 for reinstatement of bitumen surfaced roads	m	500		
4.1.10	EO item 11.1 for reinstatement of murrum surfaced roads	m	100		
4.1.11	EO item 11.1 for reinstatement of road shoulder	m	1,000		
4.1.12	EO item 11.1 for reinstatement of paths and driveways	m	200		
4.1.13	EO item 11.1 for external protection with tape wrapping	m	950		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
	Material : Select Ferrous Materials				
4.1.14	DN 300 11 1/4 ⁰	Nr	10		
4.1.15	DN 300 22 1/2 ⁰	Nr	15		
4.1.16	DN 300 45 ⁰	Nr	12		
4.1.17	DN 300 90 ⁰	Nr	10		
	Sub-Total Carried Forward				

With:

	<u>PART 4: DN 300mm Maktaba Street - Kamata (in both sides) via Bibi Titi Mohamed</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
4.1	DN 300 Operating Pressure at 10 bars				
4.1.1	DN 300 pipeline Class S4 bedding, cover not exceeding 1.5	m	4,000		
4.1.2	EO for DN 300 pipe at HDD crossing	m	30		
4.1.3	EO item 4.1 for Class S4 bedding	m	500		
4.1.4	EO item 4.1 for concrete bed and surround	m	100		
4.1.5	EO item 4.1.1 for pipes with cover exceeding 1.5 m but not exceeding 2.5 m	m	400		
4.1.6	EO item 4.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5m	m	100		
4.1.7	EO item 4.1 for excavation in rock	m ³	100		
4.1.8	EO item 4.1 for excavation in coral	m ³	100		
4.1.9	EO item 4.1 for reinstatement of bitumen surfaced roads	m	500		
4.1.10	EO item 4.1 for reinstatement of murrum surfaced roads	m	100		
4.1.11	EO item 4.1 for reinstatement of road shoulder	m	1,000		
4.1.12	EO item 4.1 for reinstatement of paths and driveways	m	200		
4.1.13	EO item 4.1 for external protection with tape wrapping	m	950		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
	Material : Select Ferrous Materials				
4.1.14	DN 300 11 1/4 ⁰	Nr	10		
4.1.15	DN 300 22 1/2 ⁰	Nr	15		
4.1.16	DN 300 45 ⁰	Nr	12		
4.1.17	DN 300 90 ⁰	Nr	10		
	Sub-Total Carried Forward				

Item No. 6

Replace:

	<u>PART 5: DN 300mm Kamata - Mandela Road (in both sides)</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
5.1	DN 300 Operating Pressure at 10 bars				
5.1.1	DN 300 pipeline Class S4 bedding, cover not exceeding 1.5	m	10,000		
5.1.2	EO for DN 300 pipe at HDD crossing	m	30		
5.1.3	EO item 11.1 for Class S4 bedding	m	500		
5.1.4	EO item 11.1 for concrete bed and surround	m	100		
5.1.5	EO item 11.1 for pipes with cover exceeding 1.5 m but not exceeding 2.5 m	m	700		
5.1.6	EO item 11.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
5.1.7	EO item 11.1 for excavation in rock	m ³	140		
5.1.8	EO item 11.1 for excavation in coral	m ³	140		
5.1.9	EO item 11.1 for reinstatement of bitumen surfaced roads	m	1000		
5.1.10	EO item 11.1 for reinstatement of murrum surfaced roads	m	100		
5.1.11	EO item 11.1 for reinstatement of road shoulder	m	1,500		
5.1.12	EO item 11.1 for reinstatement of paths and driveways	m	200		
5.1.13	EO item 11.1 for external protection with tape wrapping	m	950		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
	Material : Select Ferrous Materials				
5.1.14	DN 300 11 1/4 ⁰	Nr	15		
5.1.15	DN 300 22 1/2 ⁰	Nr	10		
5.1.16	DN 300 45 ⁰	Nr	8		
5.1.17	DN 300 90 ⁰	Nr	10		
	Sub-Total Carried Forward				

With:

	PART 5: DN 300mm Kamata - Mandela Road (in both sides)				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
5.1	DN 300 Operating Pressure at 10 bars				
5.1.1	DN 300 pipeline Class S4 bedding, cover not exceeding 1.5	m	10,000		
5.1.2	EO for DN 300 pipe at HDD crossing	m	30		
5.1.3	EO item 5.1 for Class S4 bedding	m	500		
5.1.4	EO item 5.1 for concrete bed and surround	m	100		
5.1.5	EO item 5.1.1 for pipes with cover exceeding 1.5 m but not exceeding 2.5 m	m	700		
5.1.6	EO item 5.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
5.1.7	EO item 5.1 for excavation in rock	m ³	140		
5.1.8	EO item 5.1 for excavation in coral	m ³	140		
5.1.9	EO item 5.1 for reinstatement of bitumen surfaced roads	m	1000		
5.1.10	EO item 5.1 for reinstatement of murrum surfaced roads	m	100		
5.1.11	EO item 5.1 for reinstatement of road shoulder	m	1,500		
5.1.12	EO item 5.1 for reinstatement of paths and driveways	m	200		
5.1.13	EO item 5.1 for external protection with tape wrapping	m	950		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u> Material : Select Ferrous Materials				
5.1.14	DN 300 11 1/4 ⁰	Nr	15		
5.1.15	DN 300 22 1/2 ⁰	Nr	10		
5.1.16	DN 300 45 ⁰	Nr	8		
5.1.17	DN 300 90 ⁰	Nr	10		
	Sub-Total Carried Forward				

Item No. 7

Replace:

	<u>PART 6: DN 250mm (10") Kamata - Mandela Road</u> <u>(in both sides)</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
6.1	DN 250 Operating Pressure at 10 bars				
6.1.1	DN 250 pipeline Class S3 bedding, cover not exceeding 1.5 m	m	10,000		
6.1.2	EO item 3.1.1 for concrete bed and surround	m	100		
6.1.3	EO item 3.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	130		
6.1.4	EO item 3.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
6.1.5	EO item 3.1.1 for excavation in coral	m ³	100		
6.1.6	EO item 3.1.1 for reinstatement of bitumen surfaced roads	m	100		
6.1.7	EO item 3.1.1 for reinstatement of murram surfaced roads	m	100		
6.1.8	EO item 3.1.1 for reinstatement of paths and driveway	m	120		
6.1.9	EO item 3.1.1 for external protection with tape wrapping	m	110		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u> Material : Select Ferrous Materials				
6.1.10	DN 250 11 1/4 ⁰	Nr	15		
6.1.11	DN 250 22 1/2 ⁰	Nr	16		
6.1.12	DN 250 45 ⁰	Nr	16		
6.1.13	DN 250 90 ⁰	Nr	10		
	<u>APPURTENANCES</u>				
	For Appurtenances: Air Valves, Washouts, and Fire Hydrants, specify pipe and fititngs materials				
	<u>FITTING MATERIALS</u> Material: Select Ferrous Materials AIR VALVES on road				
6.1.14	Single air valve complete with pipework, fittings and chamber	Nr	4		
	Sub-Total Carried Forward				

With:

	<u>PART 6: DN 250mm (10") Kamata - Mandela Road (in both sides)</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
6.1	DN 250 Operating Pressure at 10 bars				
6.1.1	DN 250 pipeline Class S3 bedding, cover not exceeding 1.5 m	m	10,000		
6.1.2	EO item 6.1 for concrete bed and surround	m	100		
6.1.3	EO item 6.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	130		
6.1.4	EO item 6.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
6.1.5	EO item 6.1 for excavation in coral	m ³	100		
6.1.6	EO item 6.1 for reinstatement of bitumen surfaced roads	m	100		
6.1.7	EO item 6.1 for reinstatement of murrum surfaced roads	m	100		
6.1.8	EO item 6.1 for reinstatement of paths and driveways	m	120		
6.1.9	EO item 6.1 for external protection with tape wrapping	m	110		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
	Material : Select Ferrous Materials				
6.1.10	DN 250 11 1/4 ⁰	Nr	15		
6.1.11	DN 250 22 1/2 ⁰	Nr	16		
6.1.12	DN 250 45 ⁰	Nr	16		
6.1.13	DN 250 90 ⁰	Nr	10		
	<u>APPURTENANCES</u>				
	For Appurtenances: Air Valves, Washouts, and Fire Hydrants, specify pipe and fititngs materials				
	<u>FITTING MATERIALS</u>				
	Material: Select Ferrous Materials				
	<u>AIR VALVES</u> on road				
6.1.14	Single air valve complete with pipework, fittings and chamber	Nr	4		
	Sub-Total Carried Forward				

Item No. 8

Replace:

PART 7: DN 400mm Kamata - Mandela Road				
All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
7.1	DN 400 Operating Pressure at 10 bars			
7.1.1	DN 400 pipeline Class S4 bedding, cover not exceeding 1.5m	m	5,500	
7.1.2	EO for DN 450 PE pipe at HDD crossing	m	30	
7.1.3	EO item 10.1 for Class S4 bedding	m	500	
7.1.4	EO item 10.1 for concrete bed and surround	m	100	
7.1.5	EO item 10.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	700	
7.1.6	EO item 10.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100	
7.1.7	EO item 10.1 for excavation in rock	m3	140	
7.1.8	EO item 10.1 for excavation in coral	m3	140	
7.1.9	EO item 10.1 for reinstatement of bitumen surfaced roads	m	1,500	
7.1.10	EO item 10.1 for reinstatement of murrum surfaced roads	m	100	
7.1.11	EO item 10.1 for reinstatement of road shoulder	m	1,500	
7.1.12	EO item 10.1 for reinstatement of paths and driveways	m	200	
7.1.13	EO item 10.1 for external protection with tape wrapping	m	950	
<u>BENDS</u>				
<u>FITTING MATERIALS</u>				
Material: Select Ferrous Materials				
7.1.14	DN 400 11 1/0	Nr	10	
7.1.15	DN 400 22 1/0	Nr	10	
7.1.16	DN 400 45 0	Nr	8	
7.1.17	DN 400 90 0	Nr	8	
Sub-Total Carried Forward				

With:

	<u>PART 7: DN 400mm Kamata - Mandela Road</u>			
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning			
7.1	DN 400 Operating Pressure at 10 bars			
7.1.1	DN 400 pipeline Class S4 bedding, cover not exceeding 1.5m	m	5,500	
7.1.2	EO for DN 450 PE pipe at HDD crossing	m	30	
7.1.3	EO item 7.1 for Class S4 bedding	m	500	
7.1.4	EO item 7.1 for concrete bed and surround	m	100	
7.1.5	EO item 7.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	700	
7.1.6	EO item 7.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100	
7.1.7	EO item 7.1 for excavation in rock	m ³	140	
7.1.8	EO item 7.1 for excavation in coral	m ³	140	
7.1.9	EO item 7.1 for reinstatement of bitumen surfaced roads	m	1,500	
7.1.10	EO item 7.1 for reinstatement of murrum surfaced roads	m	100	
7.1.11	EO item 7.1 for reinstatement of road shoulder	m	1,500	
7.1.12	EO item 7.1 for reinstatement of paths and driveways	m	200	
7.1.13	EO item 7.1 for external protection with tape wrapping	m	950	
	<u>BENDS</u>			
	<u>FITTING MATERIALS</u>			
	Material: Select Ferrous Materials			
7.1.14	DN 400 11 1/0	Nr	10	
7.1.15	DN 400 22 1/0	Nr	10	
7.1.16	DN 400 45 0	Nr	8	
7.1.17	DN 400 90 0	Nr	8	
	Sub-Total Carried Forward			

With:

	PART 8: DN 525 mm Nkurumah/Lumumba to Tazara & Mandela Section				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
8.1	DN 525 Operating Pressure at 10 bars				
8.1.1	DN 525 pipeline Class S3 bedding, cover not exceeding 1.5 m	m	8,000		
8.1.2	EO item 8.1 for Class 3 bedding	m	150		
8.1.3	EO item 8.1 for concrete bed and surround	m	100		
8.1.4	EO item 8.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	200		
8.1.5	EO item 8.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
8.1.6	EO item 8.1 for excavation in rock	m ³	120		
8.1.7	EO item 8.1 for excavation in coral	m ³	120		
8.1.8	EO item 8.1 for reinstatement of bitumen surfaced roads	m	100		
8.1.9	EO item 8.1 for reinstatement of murram surfaced road	m	100		
8.1.10	EO item 8.1 for reinstatement of road shoulder	m	1,500		
8.1.11	EO item 8.1 for reinstatement of paths and driveways	m	100		
8.1.12	EO item 8.1 for external protection with tape wrapping	m	150		
	BENDS				
	FITTINGS MATERIAL Material : Select Ferrous Materials				
8.1.13	DN 525 11 1/4 ⁰	Nr	14		
8.1.14	DN 525 22 1/2 ⁰	Nr	8		
8.1.15	DN525 45 ⁰	Nr	8		
8.1.16	DN 525 90 ⁰	Nr	5		
	Sub-Total Carried Forward				

Item No. 10**Replace:**

	PART 9: Mandela to Tazara Workshop (Mchicha)				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
9.1	DN 600 Operating Pressure at 10 bars				
	PIPE MATERIAL				
9.1.1	DN 600 pipeline Class S3 bedding, cover not exceeding 1.5 mcover not exceeding 1.5 m	m	500		
9.1.2	EO item 13.1.1 for Class 3 bedding	m	100		
9.1.3	EO item 4.1.1 for concrete bed and surround	m	100		
9.1.4	EO item 13.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
9.1.5	EO item 13.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
9.1.6	EO item 13.1.1 for excavation in rock	m ³	100		
9.1.7	EO item 13.1.1 for excavation in coral	m ³	100		
9.1.8	EO item 13.1.1 for reinstatement of bitumen surfaced roads	m	100		
9.1.9	EO item 13.1.1 for reinstatement of murrum surfaced roads	m	100		
9.1.10	EO item 13.1.1 for reinstatement of road shoulder	m	100		
9.1.11	EO item 13.1.1 for reinstatement of paths and driveways	m	100		
9.1.12	EO item 13.1.1 for external protection with tape wrapping	m	80		
	BENDS				
	FITTINGS MATERIAL				
	Material: Select Ferrous Materials				
9.1.13	DN 600 11 1/4 ^o	Nr	5		
9.1.14	DN 600 22 1/2 ^o	Nr	4		
9.1.15	DN 600 45 ^o	Nr	4		
9.1.16	DN 600 90 ^o	Nr	2		
	Sub-Total Carried Forward				

With:

	<u>PART 9: Mandela to Tazara Workshop (Mchicha)</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
9.1	DN 600 Operating Pressure at 10 bars				
	<u>PIPE MATERIAL</u>				
9.1.1	DN 600 pipeline Class S3 bedding, cover not exceeding 1.5 m	m	500		
9.1.2	EO item 9.1 for Class 3 bedding	m	100		
9.1.3	EO item 9.1 for concrete bed and surround	m	100		
9.1.4	EO item 9.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
9.1.5	EO item 9.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
9.1.6	EO item 9.1 for excavation in rock	m ³	100		
9.1.7	EO item 9.1 for excavation in coral	m ³	100		
9.1.8	EO item 9.1 for reinstatement of bitumen surfaced roads	m	100		
9.1.9	EO item 9.1 for reinstatement of murrum surfaced roads	m	100		
9.1.10	EO item 9.1 for reinstatement of road shoulder	m	100		
9.1.11	EO item 9.1 for reinstatement of paths and driveways	m	100		
9.1.12	EO item 9.1 for external protection with tape wrapping	m	80		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
	Material: Select Ferrous Materials				
9.1.13	DN 600 11 1/4 ⁰	Nr	5		
9.1.14	DN 600 22 1/2 ⁰	Nr	4		
9.1.15	DN 600 45 ⁰	Nr	4		
9.1.16	DN 600 90 ⁰	Nr	2		
	Sub-Total Carried Forward				

Item No. 11**Replace:**

	<u>PART 10: DN 300mm Mandela Road to Kipawa</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
10.1	DN 300 Operating Pressure at 10 bars				
10.1.1	DN 300 pipeline Class S4 bedding, cover not exceeding 1.5	m	3,000		
10.1.2	EO for DN 300 pipe at HDD crossing	m	30		
10.1.3	EO item 11.1 for Class S4 bedding	m	100		
10.1.4	EO item 11.1 for concrete bed and surround	m	100		
10.1.5	EO item 11.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
10.1.6	EO item 11.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
10.1.7	EO item 11.1 for excavation in rock	m ³	100		
10.1.8	EO item 11.1 for excavation in coral	m ³	100		
10.1.9	EO item 11.1 for reinstatement of bitumen surfaced roads	m	300		
10.1.10	EO item 11.1 for reinstatement of murrum surfaced roads	m	100		
10.1.11	EO item 11.1 for reinstatement of road shoulder	m	100		
10.1.12	EO item 11.1 for reinstatement of paths and driveways	m	100		
10.1.13	EO item 11.1 for external protection with tape wrapping	m	1,000		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
	Material : Select Ferrous Materials				
10.1.14	DN 300 11 1/40	Nr	12		
10.1.15	DN 300 22 1/20	Nr	10		
10.1.16	DN 300 45 0	Nr	10		
10.1.17	DN 300 90 0	Nr	10		
	Sub-Total Carried Forward				

With:

	PART 10: DN 300mm Mandela Road to Kipawa				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
10.1	DN 300 Operating Pressure at 10 bars				
10.1.1	DN 300 pipeline Class S4 bedding, cover not exceeding 1.5	m	3,000		
10.1.2	EO for DN 300 pipe at HDD crossing	m	30		
10.1.3	EO item 10.1 for Class S4 bedding	m	100		
10.1.4	EO item 10.1 for concrete bed and surround	m	100		
10.1.5	EO item 10.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
10.1.6	EO item 10.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
10.1.7	EO item 10.1 for excavation in rock	m ³	100		
10.1.8	EO item 10.1 for excavation in coral	m ³	100		
10.1.9	EO item 10.1 for reinstatement of bitumen surfaced roads	m	300		
10.1.10	EO item 10.1 for reinstatement of murrum surfaced roads	m	100		
10.1.11	EO item 10.1 for reinstatement of road shoulder	m	100		
10.1.12	EO item 10.1 for reinstatement of paths and driveways	m	100		
10.1.13	EO item 10.1 for external protection with tape wrapping	m	1,000		
	BENDS				
	FITTINGS MATERIAL				
	Material : Select Ferrous Materials				
10.1.14	DN 300 11 1/40	Nr	12		
10.1.15	DN 300 22 1/20	Nr	10		
10.1.16	DN 300 45 0	Nr	10		
10.1.17	DN 300 90 0	Nr	10		
	Sub-Total Carried Forward				

Item No. 12

Replace:

<u>PART 11: DN 200mm Mandela (Mchicha) to Kipawa</u>					
All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning					
11.1	DN 200 Operating Pressure at 10 bars				
11.1.1	DN 200 pipeline Class S3 bedding, cover not exceeding 1.5 m cover not exceeding 1.5 m	m	2,000		
11.1.2	EO item 4.1.1 for Class 3 bedding	m	150		
11.1.3	EO item 4.1.1 for concrete bed and surround	m	100		
11.1.4	EO item 4.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
11.1.5	EO item 4.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
11.1.6	EO item 4.1.1 for excavation in coral	m ³	100		
11.1.7	EO item 4.1.1 for reinstatement of bitumen surfaced roads	m	100		
11.1.8	EO item 4.1.1 for reinstatement of murrum surfaced roads	m	100		
11.1.9	EO item 4.1.1 for reinstatement of paths and driveways	m	100		
11.1.10	EO item 4.1.1 for external protection with tape wrapping	m	100		
<u>BENDS</u>					
<u>FITTINGS MATERIAL</u>					
Material: Select Ferrous Materials					
11.1.11	DN 200 11 1/4 ^o	Nr	10		
11.1.12	DN 200 22 1/2 ^o	Nr	8		
11.1.13	DN 200 45 ^o	Nr	8		
11.1.14	DN 200 90 ^o	Nr	5		
Sub-Total Carried Forward					

Item No. 13

Replace:

<u>PART 12: DN 400mm KIPAWA TO GONGOLAMBOTO (Mzambarauni)</u>				
All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
12.1	DN 400 Operating Pressure at 10 bars			
12.1.1	DN 400 pipeline Class S4 bedding, cover not exceeding 1.5	m	6,000	
12.1.2	EO for DN 450 PE pipe at HDD crossing	m	30	
12.1.3	EO item 10.1 for Class S4 bedding	m	500	
12.1.4	EO item 10.1 for concrete bed and surround	m	100	
12.1.5	EO item 10.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	500	
12.1.6	EO item 10.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100	
12.1.7	EO item 10.1 for excavation in rock	m ³	100	
12.1.8	EO item 10.1 for excavation in coral	m ³	100	
12.1.9	EO item 10.1 for reinstatement of bitumen surfaced roads	m	1,000	
12.1.10	EO item 10.1 for reinstatement of murrum surfaced roads	m	100	
12.1.11	EO item 10.1 for reinstatement of road shoulder	m	400	
12.1.12	EO item 10.1 for reinstatement of paths and driveways	m	100	
12.1.13	EO item 10.1 for external protection with tape wrapping	m	500	
<u>BENDS</u>				
<u>FITTINGS MATERIAL</u>				
Material: Select Ferrous Materials				
12.1.14	DN 400 11 1/4 0	Nr	10	
12.1.15	DN 400 22 1/2 0	Nr	10	
12.1.16	DN 400 45 0	Nr	8	
12.1.17	DN 400 90 0	Nr	8	
Sub-Total Carried Forward				

Item No. 14

Replace:

<u>PART 13: DN 300mm ROZANA TO MSIMBAZI STREET</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning			
13.1	DN 300 Operating Pressure at 10 bars			
13.1.1	DN 300 pipeline Class S4 bedding, cover not exceeding 1.5	m	3,000	
13.1.2	EO for DN 300 pipe at HDD crossing	m	30	
13.1.3	EO item 11.1 for Class S4 bedding	m	100	
13.1.4	EO item 11.1 for concrete bed and surround	m	100	
13.1.5	EO item 11.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100	
13.1.6	EO item 11.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100	
13.1.7	EO item 11.1 for excavation in rock	m ³	100	
13.1.8	EO item 11.1 for excavation in coral	m ³	100	
13.1.9	EO item 11.1 for reinstatement of bitumen surfaced roads	m	300	
13.1.10	EO item 11.1 for reinstatement of murrum surfaced roads	m	100	
13.1.11	EO item 11.1 for reinstatement of road shoulder	m	100	
13.1.12	EO item 11.1 for reinstatement of paths and driveways	m	100	
13.1.13	EO item 11.1 for external protection with tape wrapping	m	2,000	
	<u>BENDS</u>			
	<u>FITTINGS MATERIAL</u>			
	Material : Select Ferrous Materials			
13.1.14	DN 300 11 1/4 ⁰	Nr	12	
13.1.15	DN 300 22 1/2 ⁰	Nr	10	
13.1.16	DN 300 45 ⁰	Nr	10	
13.1.17	DN 300 90 ⁰	Nr	10	
	Sub-Total Carried Forward			

With:

	<u>PART 13: DN 300mm ROZANA TO MSIMBAZI STREET</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
13.1	DN 300 Operating Pressure at 10 bars				
13.1.1	DN 300 pipeline Class S4 bedding, cover not exceeding 1.5	m	3,000		
13.1.2	EO for DN 300 pipe at HDD crossing	m	30		
13.1.3	EO item 13.1 for Class S4 bedding	m	100		
13.1.4	EO item 13.1 for concrete bed and surround	m	100		
13.1.5	EO item 13.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
13.1.6	EO item 13.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
13.1.7	EO item 13.1.1 for excavation in rock	m ³	100		
13.1.8	EO item 13.1.1 for excavation in coral	m ³	100		
13.1.9	EO item 13.1 for reinstatement of bitumen surfaced roads	m	300		
13.1.10	EO item 13.1 for reinstatement of murrum surfaced roads	m	100		
13.1.11	EO item 13.1 for reinstatement of road shoulder	m	100		
13.1.12	EO item 13.1 for reinstatement of paths and driveways	m	100		
13.1.13	EO item 13.1 for external protection with tape wrapping	m	2,000		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u> Material : Select Ferrous Materials				
13.1.14	DN 300 11 1/4 ⁰	Nr	12		
13.1.15	DN 300 22 1/2 ⁰	Nr	10		
13.1.16	DN 300 45 ⁰	Nr	10		
13.1.17	DN 300 90 ⁰	Nr	10		
	Sub-Total Carried Forward				

Item No. 15

Replace:

<u>PART 14: DN 150mm (6") MANDELA ROAD TO MSIMBAZI STREET</u>					
All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning					
14.1	DN 150 Operating Pressure at 10 bars				
14.1.1	DN 150 pipeline Class S3 bedding, cover not exceeding 1.5 mcover not exceeding 1.5 m	m	4,000		
14.1.2	EO item 6.1.1 for Class 3 bedding	m	100		
14.1.3	EO item 6.1.1 for concrete bed and surround	m	100		
14.1.4	EO item 6.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
14.1.5	EO item 6.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
14.1.6	EO item 6.1.1 for excavation in rock	m ³	70		
14.1.7	EO item 6.1.1 for excavation in coral	m ³	70		
14.1.8	EO item 6.1.1 for reinstatement of bitumen surfaced roads	m	100		
14.1.9	EO item 6.1.1 for reinstatement of murrum surfaced roads	m	100		
14.1.10	EO item 6.1.1 for reinstatement of road shoulder	m	100		
14.1.11	EO item 6.1.1 for reinstatement of paths and driveways	m	100		
14.1.12	EO item 6.1.1 for external protection with tape wrapping	m	100		
<u>BENDS</u>					
<u>FITTINGS MATERIAL</u>					
Material : Select Ferrous Materials					
14.1.13	DN 150 11 1/4 ⁰	Nr	10		
14.1.14	DN 150 22 1/2 ⁰	Nr	8		
14.1.15	DN 150 45 ⁰	Nr	8		
14.1.16	DN 150 90 ⁰	Nr	5		
Sub-Total Carried Forward					

With:

	<u>PART 14: DN 150mm (6") MANDELA ROAD TO MSIMBAZI STREET</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
14.1	DN 150 Operating Pressure at 10 bars				
14.1.1	DN 150 pipeline Class S3 bedding, cover not exceeding 1.5 mcover not exceeding 1.5 m	m	4,000		
14.1.2	EO item 14.1 for Class 3 bedding	m	100		
14.1.3	EO item 14.1 for concrete bed and surround	m	100		
14.1.4	EO item 14.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
14.1.5	EO item 14.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	100		
14.1.6	EO item 14.1 for excavation in rock	m ³	70		
14.1.7	EO item 14.1 for excavation in coral	m ³	70		
14.1.8	EO item 14.1 for reinstatement of bitumen surfaced roads	m	100		
14.1.9	EO item 14.1 for reinstatement of murrum surfaced roads	m	100		
14.1.10	EO item 14.1 for reinstatement of road shoulder	m	100		
14.1.11	EO item 14.1 for reinstatement of paths and driveways	m	100		
14.1.12	EO item 14.1 for external protection with tape wrapping	m	100		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u> Material : Select Ferrous Materials				
14.1.13	DN 150 11 1/4 ⁰	Nr	10		
14.1.14	DN 150 22 1/2 ⁰	Nr	8		
14.1.15	DN 150 45 ⁰	Nr	8		
14.1.16	DN 150 90 ⁰	Nr	5		
	Sub-Total Carried Forward				

Item No. 16

Replace:

	<u>PART 15: DN 600mm TAZARA JUNCTION TO UHURU ROAD</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
15.1	DN 600 Operating Pressure at 10 bars				
	<u>PIPE MATERIAL</u>				
15.1.1	DN 600 pipeline Class S3 bedding, cover not exceeding 1.5 mcover not exceeding 1.5 m	m	620		
15.1.2	EO item 13.1.1 for Class 3 bedding	m	100		
15.1.3	EO item 4.1.1 for concrete bed and surround	m	100		
15.1.4	EO item 13.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
15.1.5	EO item 13.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	60		
15.1.6	EO item 13.1.1 for excavation in rock	m ³	50		
15.1.7	EO item 13.1.1 for excavation in coral	m ³	50		
15.1.8	EO item 13.1.1 for reinstatement of bitumen surfaced roads	m	100		
15.1.9	EO item 13.1.1 for reinstatement of murram surfaced roads	m	100		
15.1.10	EO item 13.1.1 for reinstatement of road shoulder	m	100		
15.1.11	EO item 13.1.1 for reinstatement of paths and driveways	m	100		
15.1.12	EO item 13.1.1 for external protection with tape wrapping	m	80		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
	Material : Select Ferrous Materials				
15.1.13	DN 600 11 1/4 0	Nr	3		
15.1.14	DN 600 22 1/2 0	Nr	4		
15.1.15	DN 600 45 0	Nr	4		
15.1.16	DN 600 90 0	Nr	2		
	Sub-Total Carried Forward				

With:

	<u>PART 15: DN 600mm TAZARA JUNCTION TO UHURU ROAD</u>				
	All pipework and appertunances to include supply of pipes, fittings and chambers, excavation, bedding, install, backfilling, testing and commissioning				
15.1	DN 600 Operating Pressure at 10 bars				
	<u>PIPE MATERIAL</u>				
15.1.1	DN 600 pipeline Class S3 bedding, cover not	m	620		
15.1.2	EO item 15.1 for Class 3 bedding	m	100		
15.1.3	EO item 15.1 for concrete bed and surround	m	100		
15.1.4	EO item 15.1.1 for pipes with cover exceeding 1.5 m not exceeding 2.5 m	m	100		
15.1.5	EO item 15.1.1 for pipes with cover exceeding 2.5 m not exceeding 3.5 m	m	60		
15.1.6	EO item 15.1 for excavation in rock	m ³	50		
15.1.7	EO item 15.1 for excavation in coral	m ³	50		
15.1.8	EO item 15.1 for reinstatement of bitumen surfaced roads	m	100		
15.1.9	EO item 15.1 for reinstatement of murrum surfaced roads	m	100		
15.1.10	EO item 15.1 for reinstatement of road shoulder	m	100		
15.1.11	EO item 15.1 for reinstatement of paths and driveways	m	100		
15.1.12	EO item 15.1 for external protection with tape wrapping	m	80		
	<u>BENDS</u>				
	<u>FITTINGS MATERIAL</u>				
	Material : Select Ferrous Materials				
15.1.13	DN 600 11 1/4 0	Nr	3		
15.1.14	DN 600 22 1/2 0	Nr	4		
15.1.15	DN 600 45 0	Nr	4		
15.1.16	DN 600 90 0	Nr	2		
	Sub-Total Carried Forward				

A revised BoQ of Series 11000 in MS Excel is attached as **Appendix 1**.

Section IX - Particular– Particular Conditions - Part A – Contract Data

Item 17:

Replace

amount of insurance required for liability for breach of professional duty	19.2.3(a)	<i>100% the amount of the design agreement for the specific design obligation</i>
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With

amount of insurance required for liability for breach of professional duty	19.2.3(a)	<i>N/A</i>
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