

Sector: Gatore	
Water Source: Samuko-A	Type: Spring
Structure	Data
1. Intake	1 no.
2. Water Conveyance Pipe	Material: uPVC(PN10) Dia.: D50mm, Length: L=72m
3. Receiving Tank	Material: Reinforced Concrete Volume: 55m <sup>3</sup>
4. Transmission Pump	158L/min x 180mH x 11kw x 400V Number : 2 nos
5. Generator	Output: 50 kVA
6. Transmission Pipe	Material: Polyethylene Lined Steel Pipe(PLSP,30K) Dia.: D100mm, Length: L=463m Material: uPVC(20K) Dia.: D100mm, Length: L=208m Material: uPVC(PN16) Dia.: D110mm, Length: L=349m Material: uPVC(PN10) Dia.: D110mm, Length: L=424m
7. Distribution Reservoir	Material: Reinforced Concrete Volume: 80m <sup>3</sup>
8. Distribution Pipe	Material: Polyethylene Pipe(WEETA,SDR13.6) Dia.: D150mm, Length: L=279m Material: uPVC(PN16) Dia.: D40mm, Length: L=450m Material: uPVC(PN10) Dia.: D160mm, Length: L=551m Dia.: D125mm, Length: L=561m Dia.: D110mm, Length: L=1,375m Dia.: D75mm, Length: L=1,849m Dia.: D40mm, Length: L=3,270m
9. Public Tap Stand	2 taps x 5 3 taps x 3 4 taps x 5
10. Hand Pump	Hand Pump Type: Afridef x 1 no

PLATE No.

BENCH MARK				
NO.	ZONE	NORTHING (m)	EASTING (m)	ELEVATION (m:Gatore Local)
BM B-01	36M	229198.06	9740353.51	1432.3
BM B-02	36M	229521.08	9740462.36	1413.4
BM B-03	36M	229585.07	9740428.59	1423.4
BM B-04	36M	230143.93	9741382.50	1575.1
BM B-05	36M	230334.72	9743520.17	1526.0

Note: Ellipsoid: WGS1984

PUBLIC TAP STAND					
NO.	No. of TAPs	ZONE	NORTHING (m)	EASTING (m)	ELEVATION (m:AMSL)
1	2	36M	9,741,537	230,252	1575
2	4	36M	9,742,707	230,799	1496
3	4	36M	9,743,207	230,574	1519
4	4	36M	9,743,855	229,858	1483
5	3	36M	9,741,321	229,948	1557
6	2	36M	9,743,591	230,414	1526
7	2	36M	9,744,161	230,586	1529
8	4	36M	9,744,751	230,643	1513
9	4	36M	9,744,638	230,195	1512
10	2	36M	9,745,307	230,533	1505
11	2	36M	9,744,713	231,013	1475
12	3	36M	9,744,805	231,853	1373
13	3	36M	9,744,694	230,810	1506

Note: Coordinates are indicating the points of branch on main pipe.

LEGEND

- DISTRIBUTION PIPE
- - - TRANSMISSION PIPE
- ▲ WATER SOURCE/PUMP HOUSE
- PUBLIC STAND
- DISTRIBUTION TANK
- MAINTENANCE ROAD TO BE CONSTRUCTED BY THE CONTRACTOR
- ⊕ BENCH MARK

Pipe Route: Gatore

PIPE LINE NAME	B.P.	EP.	PIPE DIAMETER / LENGTH
WATER CONVEYANCE PIPE			
CO	SAMUKO-A W.S.	COLLECTION TANK	DN50, L=72m
TRANSMISSION PIPE			
TR	PUMPING STA.	TANK MD1	DN100-PLSP/30K, L=463 DN100-uPVC/20K, L=208m DN110-uPVC/PN16, L=349m DN110, L=424m
DISTRIBUTION PIPE			
DS1	TANK MD1	PS03-4	DN150-WEETA/SDR13.6, L=279m DN160, L=551m DN125, L=561m DN110, L=1,375m DN40, L=653m
DS2	JCT01	PS04-3	DN40, L=268m
DS3	JCT02	PS09-4	DN75, L=1,849m DN40, L=676m
DS4	JCT03	PS10-2	DN40, L=199m
DS5	JCT04	PS12-3	DN40-uPVC/PN16, L=450m DN40, L=1,320m
DS6	JCT05	PS13-3	DN40, L=154m

(Pipe class is uPVC PN10 unless otherwise mentioned)

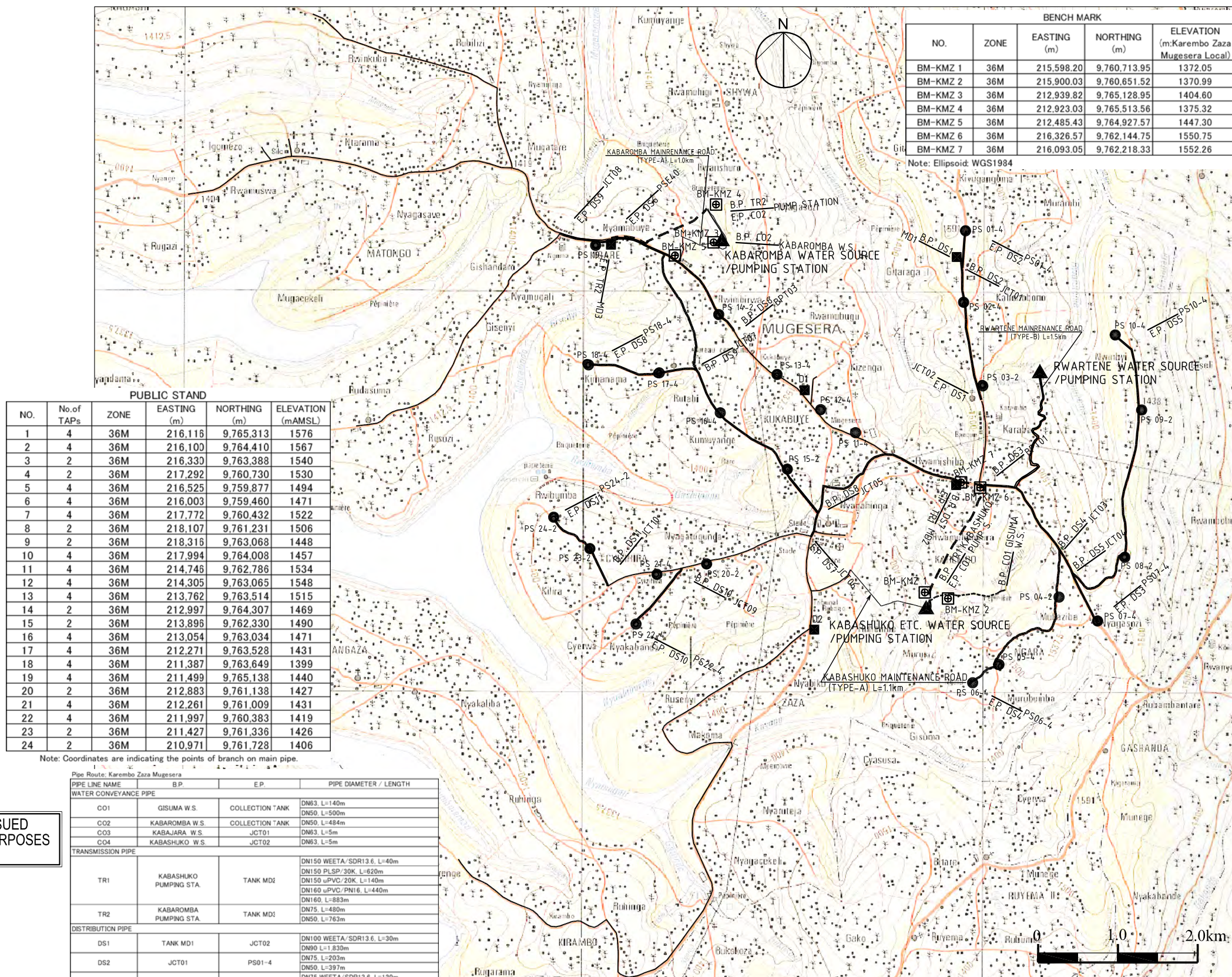
DRAWING ISSUED FOR TENDER PURPOSES ONLY

PROJECT NAME IMPLEMENTATION REVIEW STUDY ON THE PROJECT FOR RURAL WATER SUPPLY			
CLIENT MINISTRY OF INFRASTRUCTURE RWANDA		JAPAN INTERNATIONAL COOPERATION AGENCY	
TITLE GATORE WATER SUPPLY SCHEME GENERAL PLAN OF GATORE SCHEME			
DATE March 2010	SCALE 1:30000	APPROVE	DESIGN
			DRAWING NO. GT_GN_010

Figure 2-8 General Layout Map of Gatore Site

PLATE No.

District: Ngoma	
Sector: Karemba, Zaza, Mugesera	
Water Source: Rwartene, Gisuma, Kabajara, Kabashuko, Kabaromba   Type: Spring	
Structure	Data
1. Intake	2 nos
2. Water Conveyance Pipe	Material: uPVC(PN10) Dia: D63mm, Length: L=150m Dia: D50mm, Length: L=984m
3. Receiving Tank	(1)at Kabashuko W.S. Material: Reinforced Concrete Volume: 100m <sup>3</sup> (2)at Kabaromba W.S. Material: Reinforced Concrete Volume: 30m <sup>3</sup>
4. Transmission Pump	(1) at Rwartene 205L/min x 220mH x 15kw x 400V Number : 2nos (2) at Kabashuko 236L/min x 210mH x 15kw x 400V Number : 2nos (3) at Kabaromba 61L/min x 100mH x 2.2kw x 400V Number : 2nos
5. Generator	(1)at Kabashuko W.S. Output: 65 kVA (2)at Kabaromba W.S. Output: 12.5 kVA
6. Transmission Pipe	Material: Polyethylene Pipe(WEETA,SDR13.6) Dia: D150mm, Length: L=40m Material: Polyethylene Lined Steel Pipe(PLSP,30K) Dia: D150mm, Length: L=620m Material: uPVC(20K) Dia: D150mm, Length: L=140m Material: uPVC(PN16) Dia: D160mm, Length: L=440m Dia: D75mm, Length: L=480m Material: uPVC(PN10) Dia: D160mm, Length: L=883m Dia: D75mm, Length: L=763m
7. Distribution Reservoir	(1)at Kabashuko W.S. Material: Reinforced Concrete (MD2) Volume: 120m <sup>3</sup> (2)at Kabaromba W.S. Material: Reinforced Concrete (MD3) Volume: 40m <sup>3</sup>
8. Distribution Pipe	Material: Polyethylene Pipe(WEETA,SDR13.6) Dia: D100mm, Length: L=69m Dia: D75mm, Length: L=120m Dia: D50mm, Length: L=786m Material: uPVC(PN10) Dia: D110mm, Length: L=5,404m Dia: D90mm, Length: L=4,436m Dia: D75mm, Length: L=1,139m Dia: D63mm, Length: L=1,692m Dia: D50mm, Length: L=3,258m Dia: D40mm, Length: L=7,907m
9. Break Pressure Tank	Material: Wet Masonry Number: 4nos
10. Public Tap Stand	2 taps x 9 4 taps x 15 Existing Stand to be Rehabilitated x 27



LEGEND

- DISTRIBUTION PIPE
- TRANSMISSION PIPE
- WATER SOURCE/PUMP HOUSE
- PUBLIC STAND
- DISTRIBUTION TANK
- MAINTENANCE ROAD TO BE CONSTRUCTED BY THE CONTRACTOR
- BENCH MARK

DRAWING ISSUED FOR TENDER PURPOSES ONLY

PIPE LINE NAME	BP	EP	PIPE DIAMETER / LENGTH
<b>WATER CONVEYANCE PIPE</b>			
CO1	GISUMA W.S	COLLECTION TANK	DN63, L=140m
CO2	KABAROMBA W.S	COLLECTION TANK	DN50, L=500m
CO3	KABAJARA W.S	JCT01	DN50, L=484m
CO4	KABASHUKO W.S	JCT02	DN63, L=5m
<b>TRANSMISSION PIPE</b>			
TR1	KABASHUKO PUMPING STA.	TANK MD2	DN150 WEETA/SDR13.6, L=40m DN150 PLSP/30K, L=620m DN150 uPVC/20K, L=140m DN160 uPVC/PN16, L=440m DN160, L=883m
TR2	KABAROMBA PUMPING STA.	TANK MD3	DN75, L=480m DN50, L=763m
<b>DISTRIBUTION PIPE</b>			
DS1	TANK MD1	JCT02	DN100 WEETA/SDR13.6, L=30m DN90, L=1,830m
DS2	JCT01	PS01-4	DN75, L=203m DN50, L=397m
DS3	BPT01	PS07-4	DN75 WEETA/SDR13.6, L=120m DN50 WEETA/SDR13.6, L=50m DN63, L=1,692m DN63, L=561m
DS4	JCT03	PS06-4	DN75, L=936m DN40, L=1,643m
DS5	JCT04	PS10-4	DN50 WEETA/SDR13.6, L=736m DN50, L=2,861m DN40, L=306m
DS6	BPT03	PSE 40	DN40, L=1,999m
DS7	TANK MD2	JCT06	DN90, L=2,606m
DS8	JCT05	PS18-4	DN100 WEETA/SDR13.6, L=39m DN110, L=2,554m DN40, L=1,336m
DS9	JCT07	JCT08	DN110, L=2,850m
DS10	JCT09	PW 22-4	DN40, L=820m
DS11	JCT10	PS24-2	DN40, L=1,142m

(If there is no class it means uPVC PN10)

PROJECT NAME IMPLEMENTATION REVIEW STUDY ON THE PROJECT FOR RURAL WATER SUPPLY			
CLIENT MINISTRY OF INFRASTRUCTURE RWANDA		JAPAN INTERNATIONAL COOPERATION AGENCY	
TITLE KAREMBO ZAZA MUGESERA WATER SUPPLY SCHEME GENERAL PLAN OF KAREMBO ZAZA MUGESERA SCHEME			
DATE March 2010	SCALE 1:55556	APPROVE	DESIGN
			DRAWING NO. KZM_GN_010

Figure 2-9 General Layout Map of Karemba Zaza Mugesera Site