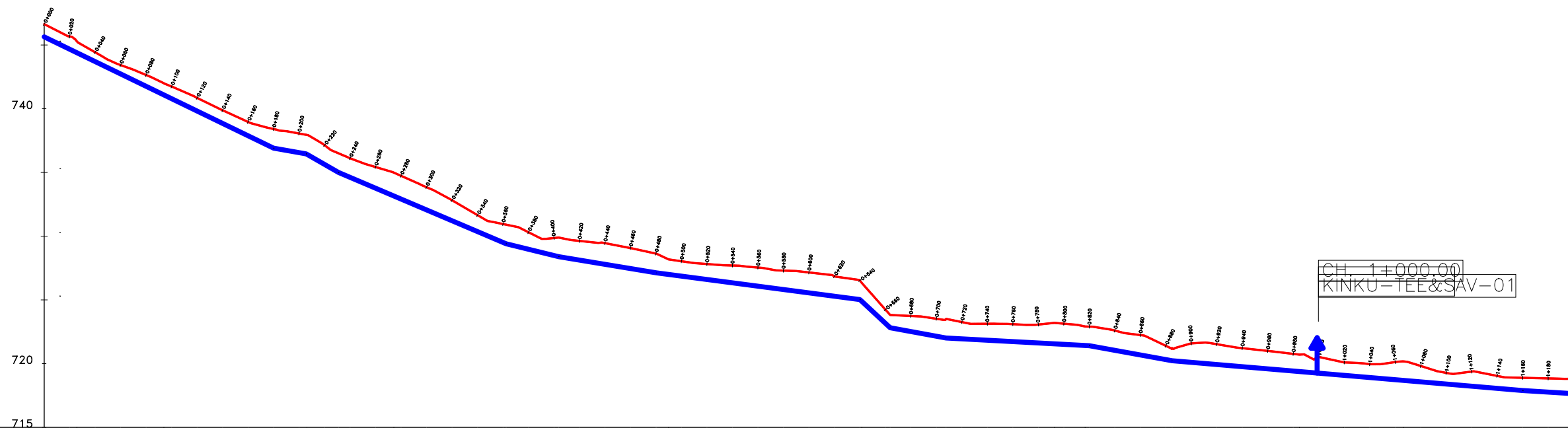


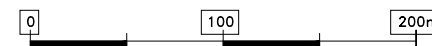
- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - - - - - FENCE / HEDGE
  - CONTOURS
  - RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS	TYPE OF PIPE AND SIZE	GEOLOGICAL CONDITION
0+000.00	746.64	745.64	1.00			
0+020.00	745.67	744.67	1.00			
0+040.00	744.43	743.43	1.00			
0+060.00	743.42	742.42	1.00			
0+080.00	742.64	741.64	1.00			
0+100.00	741.08	740.08	1.00			
0+120.00	739.82	738.82	1.00			
0+140.00	738.85	737.85	1.00			
0+160.00	737.88	736.88	1.00			
0+180.00	736.91	735.91	1.00			
0+200.00	735.05	734.05	1.00			
0+220.00	733.63	732.63	1.00			
0+240.00	731.50	730.50	1.00			
0+260.00	729.43	728.43	1.00			
0+280.00	727.34	726.34	1.00			
0+300.00	725.84	724.84	1.00			
0+320.00	723.82	722.82	1.00			
0+340.00	721.65	720.65	1.00			
0+360.00	719.51	718.51	1.00			
0+380.00	717.31	716.31	1.00			
0+400.00	715.06	714.06	1.00			
0+420.00	712.77	711.77	1.00			
0+440.00	710.44	711.44	1.00			
0+460.00	708.07	709.07	1.00			
0+480.00	705.66	706.66	1.00			
0+500.00	703.21	704.21	1.00			
0+520.00	700.72	701.72	1.00			
0+540.00	698.20	699.20	1.00			
0+560.00	695.65	696.65	1.00			
0+580.00	693.07	694.07	1.00			
0+600.00	690.46	691.46	1.00			
0+620.00	687.82	688.82	1.00			
0+640.00	685.15	686.15	1.00			
0+660.00	682.45	683.45	1.00			
0+680.00	679.72	680.72	1.00			
0+700.00	676.96	677.96	1.00			
0+720.00	674.17	675.17	1.00			
0+740.00	671.35	672.35	1.00			
0+760.00	668.50	669.50	1.00			
0+780.00	665.62	666.62	1.00			
0+800.00	662.71	663.71	1.00			
0+820.00	659.78	660.78	1.00			
0+840.00	656.82	657.82	1.00			
0+860.00	653.83	654.83	1.00			
0+880.00	650.81	651.81	1.00			
0+900.00	647.76	648.76	1.00			
0+920.00	644.68	645.68	1.00			
0+940.00	641.57	642.57	1.00			
0+960.00	638.43	639.43	1.00			
0+980.00	635.26	636.26	1.00			
1+000.00	632.06	633.06	1.00			
1+020.00	628.82	629.82	1.00			
1+040.00	625.55	626.55	1.00			
1+060.00	622.25	623.25	1.00			
1+080.00	618.91	619.91	1.00			
1+100.00	615.53	616.53	1.00			
1+120.00	612.11	613.11	1.00			
1+140.00	608.65	609.65	1.00			
1+160.00	605.15	606.15	1.00			
1+180.00	601.61	602.61	1.00			
1+200.00	598.03	599.03	1.00			

**LONGITUDINAL SECTION**



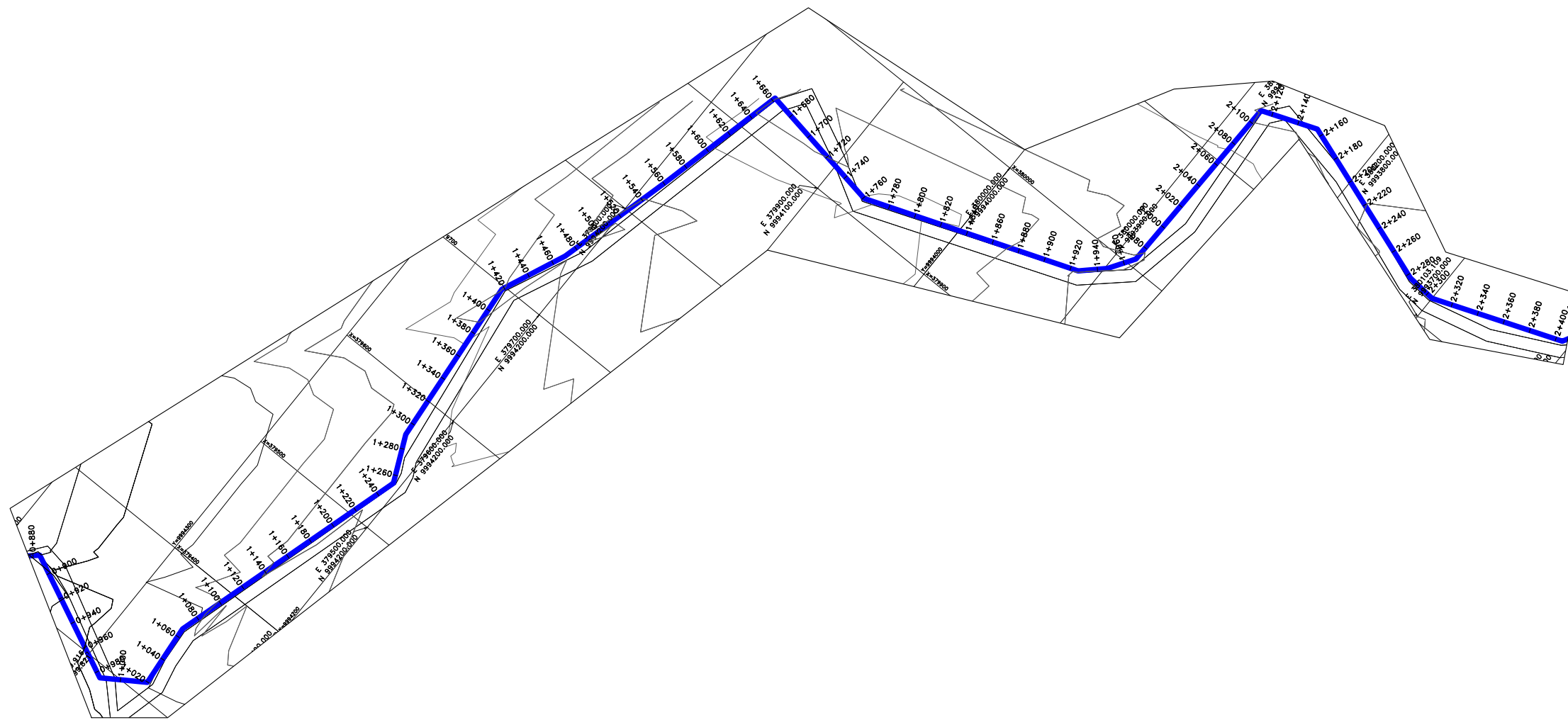
CLIENT: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

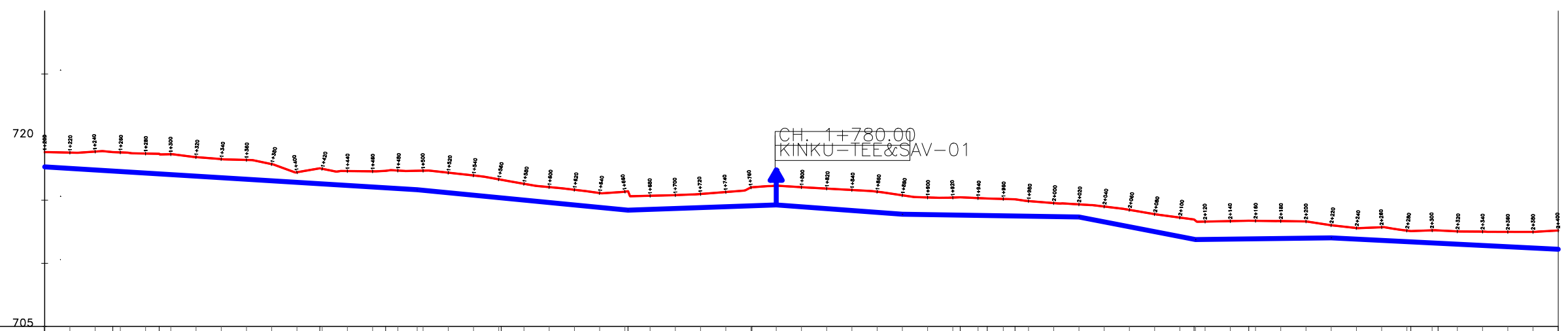
DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 0+000.00 - 1+200.00  
SHEET 1 OF 11**

Designed by: A.M.M      Drawn by: A.M.M  
Checked by: D.N.W      Approved by: D.N.W  
Scale: H- 1:4000, V- 1:400      Date: MAY 2022  
DRG No. **KINKU/01**



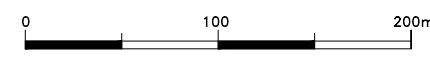
- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - 1480— CONTOURS
  - RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)
1.17	718.81	717.64	1.17
1.25	718.77	717.52	1.25
1.46	718.85	717.40	1.46
1.50	718.91	717.31	1.50
1.51	718.79	717.27	1.51
1.54	718.70	717.15	1.54
1.59	718.68	717.09	1.59
1.61	718.64	717.03	1.61
1.51	718.41	716.91	1.51
1.47	718.26	716.78	1.47
1.53	718.19	716.66	1.53
1.32	717.86	716.54	1.32
0.80	717.22	716.42	0.80
1.22	717.53	716.38	1.22
1.14	717.31	716.17	1.14
1.24	717.29	716.05	1.24
1.34	717.33	715.98	1.34
1.42	717.35	715.93	1.42
1.50	717.33	715.83	1.50
1.55	717.18	715.59	1.55
1.56	716.96	715.40	1.56
1.45	716.66	715.24	1.45
1.29	716.30	715.01	1.29
1.22	716.04	714.82	1.22
1.20	715.83	714.62	1.20
1.14	715.57	714.43	1.14
1.08	715.35	714.27	1.08
1.06	715.40	714.34	1.06
1.08	715.49	714.41	1.08
1.16	715.65	714.49	1.16
1.48	716.01	714.58	1.48
1.53	716.15	714.63	1.53
1.55	716.03	714.48	1.55
1.59	715.92	714.33	1.59
1.63	715.81	714.18	1.63
1.64	715.67	714.04	1.64
1.50	715.39	713.89	1.50
1.36	715.22	713.86	1.36
1.38	715.21	713.83	1.38
1.41	715.23	713.87	1.41
1.37	715.17	713.80	1.37
1.35	715.14	713.78	1.35
1.34	715.10	713.76	1.34
1.32	715.07	713.75	1.32
1.20	714.93	713.73	1.20
1.07	714.77	713.70	1.07
1.00	714.67	713.67	1.00
1.22	714.50	713.52	1.22
1.34	714.23	712.90	1.34
1.39	713.90	712.51	1.39
1.50	713.62	712.12	1.50
1.48	713.48	711.98	1.48
1.41	713.51	711.89	1.41
1.43	713.35	711.92	1.43
1.42	713.37	711.94	1.42
1.38	713.35	711.97	1.38
1.33	713.32	711.99	1.33
1.00	713.02	712.02	1.00
0.88	712.79	711.92	0.88
1.04	712.86	711.82	1.04
0.88	712.58	711.76	0.88
1.00	712.81	711.68	1.00
1.02	712.53	711.51	1.02
1.10	712.51	711.41	1.10
1.18	712.49	711.31	1.18
1.27	712.49	711.21	1.27
1.49	712.60	711.11	1.49

**LONGITUDINAL SECTION**



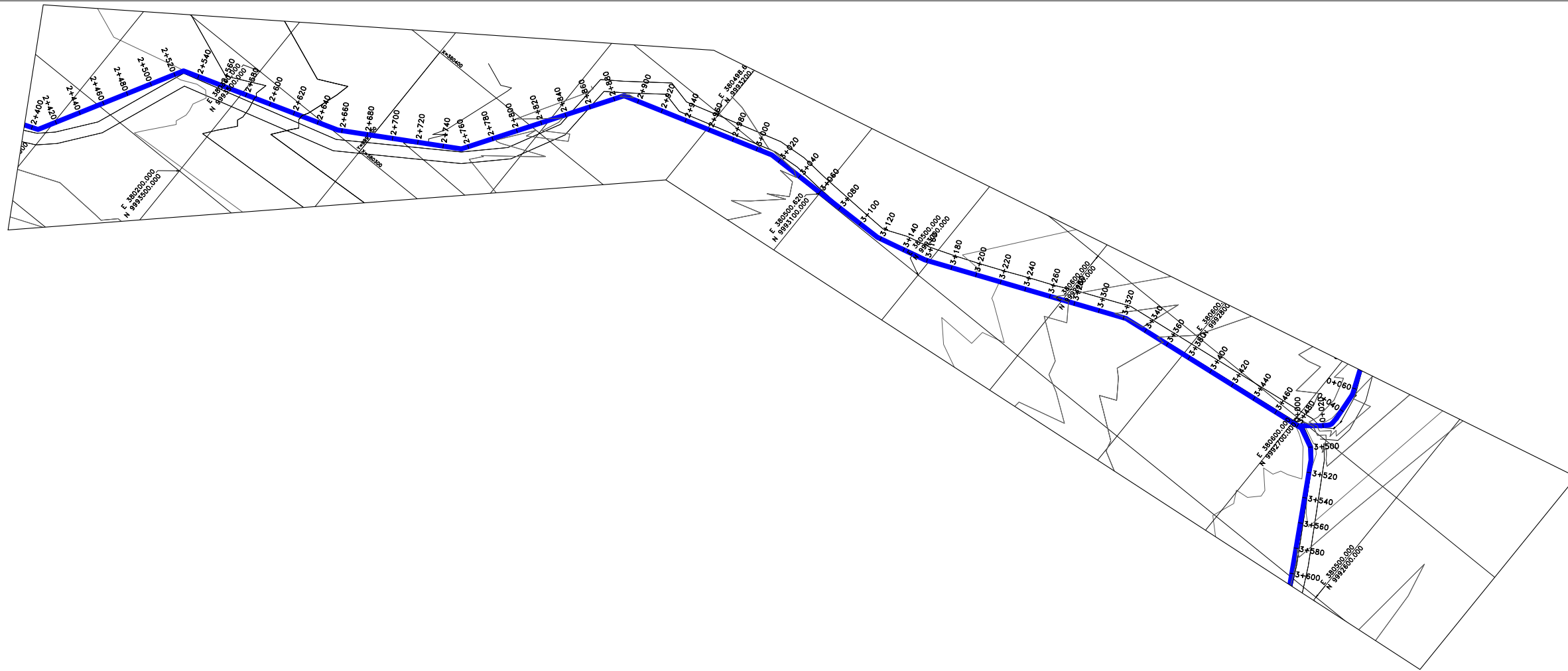
CLIENT: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

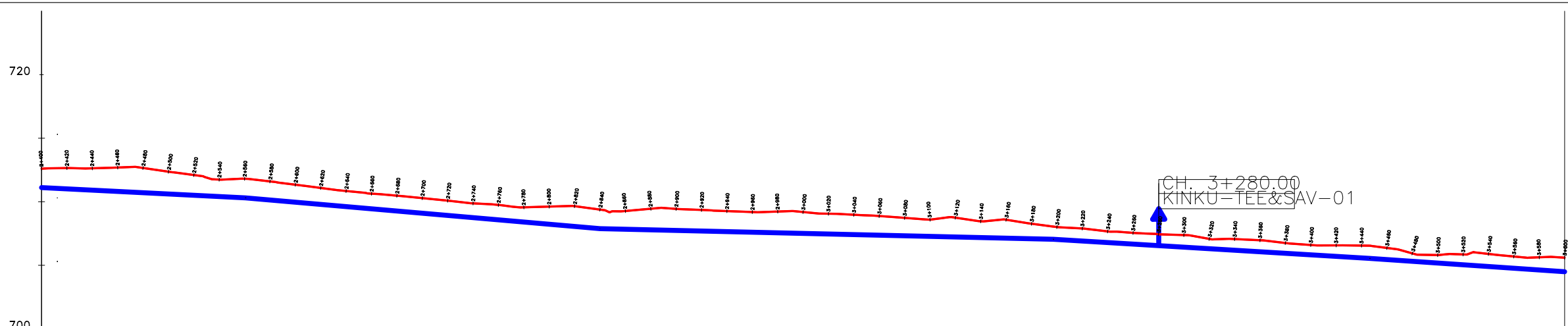
DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 1+200.00 - 2+400.00  
SHEET 2 OF 11**

Designed by: A.M.M	Drawn by: A.M.M
Checked by: D.N.W	Approved by: D.N.W
Scale: H- 1:4000, V- 1:400	Date: MAY 2022
DRG No. <b>KINKU/02</b>	REV



- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - 1480--- CONTOURS
  - RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS	TYPE OF PIPE AND SIZE	GEOLOGICAL CONDITION
2+400.00	712.60	711.11	1.49			
2+420.00	712.65	711.01	1.64			
2+440.00	712.63	710.91	1.72			
2+460.00	712.69	710.81	1.88			
2+480.00	712.66	710.71	1.95			
2+500.00	712.37	710.61	1.76			
2+520.00	712.10	710.51	1.59			
2+537.58	712.00	710.47	1.53			
2+540.00	711.74	710.41	1.33			
2+560.00	711.81	710.31	1.50			
2+580.00	711.60	710.14	1.46			
2+600.00	711.34	709.96	1.38			
2+620.00	711.08	709.79	1.29			
2+640.00	710.85	709.62	1.23			
2+660.00	710.66	709.47	1.19			
2+680.00	710.48	709.27	1.21			
2+700.00	710.28	709.10	1.18			
2+720.00	710.09	708.92	1.16			
2+740.00	709.87	708.75	1.12			
2+760.00	709.80	708.62	1.18			
2+780.00	709.56	708.40	1.16			
2+800.00	709.62	708.23	1.39			
2+820.00	709.65	708.06	1.60			
2+840.00	709.39	707.88	1.50			
2+860.00	709.27	707.84	1.43			
2+880.00	709.45	707.79	1.66			
2+888.18	709.52	707.77	1.75			
2+900.00	709.44	707.74	1.70			
2+920.00	709.36	707.70	1.66			
2+940.00	709.26	707.65	1.61			
2+960.00	709.19	707.60	1.59			
2+980.00	709.23	707.55	1.67			
3+000.00	709.19	707.51	1.68			
3+012.60	709.07	707.48	1.59			
3+020.00	709.06	707.46	1.60			
3+040.00	708.99	707.41	1.58			
3+060.00	708.88	707.37	1.51			
3+080.00	708.73	707.32	1.41			
3+100.00	708.59	707.27	1.32			
3+120.00	708.79	707.23	1.56			
3+140.00	708.46	707.18	1.28			
3+160.00	708.54	707.14	1.40			
3+180.00	708.27	707.09	1.18			
3+200.00	708.05	707.05	1.00			
3+220.00	707.90	706.91	0.99			
3+240.00	707.67	706.79	0.88			
3+260.00	707.55	706.67	0.88			
3+280.00	707.45	706.55	0.90			
3+300.00	707.38	706.43	0.95			
3+320.00	707.08	706.29	0.79			
3+340.00	707.06	706.18	0.88			
3+360.00	706.87	706.06	0.81			
3+380.00	706.75	705.94	0.81			
3+400.00	706.60	705.82	0.78			
3+420.00	706.57	705.70	0.87			
3+440.00	706.55	705.58	0.97			
3+460.00	706.44	705.54	1.00			
3+480.00	706.36	705.45	0.92			
3+500.00	705.84	705.31	0.53			
3+520.00	705.80	705.18	0.63			
3+540.00	705.69	705.11	0.78			
3+560.00	705.85	705.04	0.81			
3+580.00	705.89	704.90	0.99			
3+600.00	705.69	704.77	0.92			
3+620.00	705.63	704.63	1.00			
3+640.00	705.60	704.49	1.10			

**LONGITUDINAL SECTION**



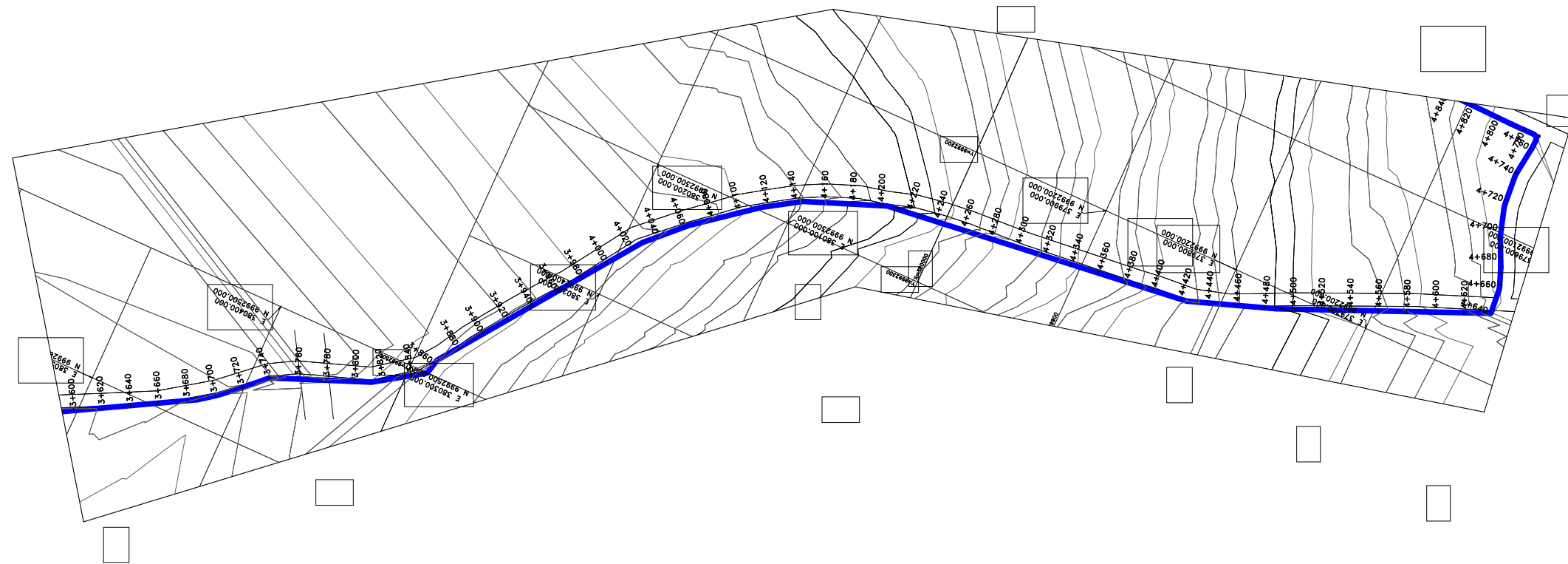
CLIENT: **THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY**  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: **THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY**  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

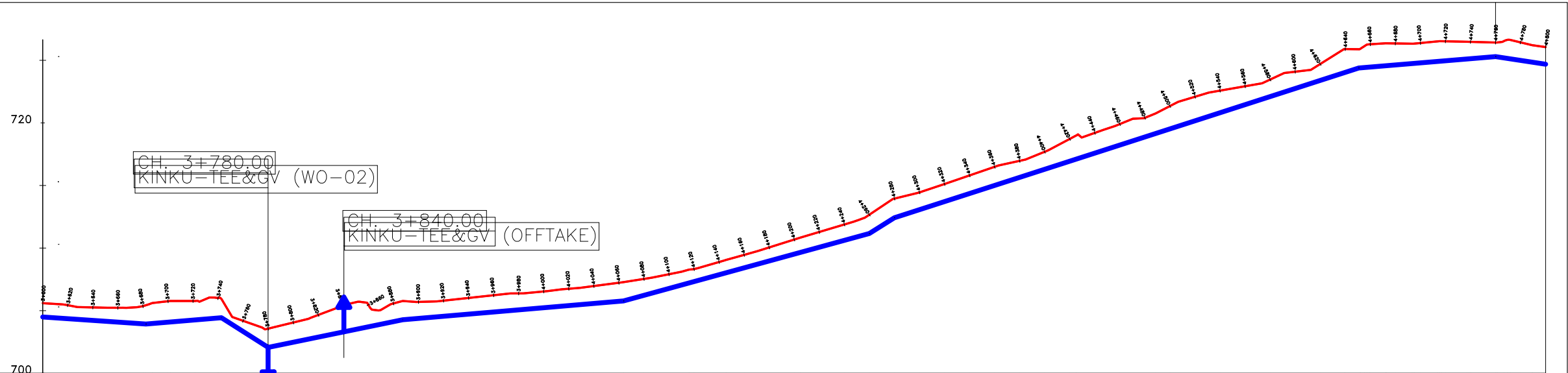
DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 2+400.00 - 3+600.00  
SHEET 3 OF 11**

Designed by: A.M.M	Drawn by: A.M.M
Checked by: D.N.W	Approved by: D.N.W
Scale: H- 1:4000, V- 1:400	Date: MAY 2022
<b>DRG No. KINKU/03</b>	REV



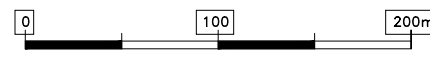
- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - 1480- CONTOURS
  - RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS
3+600.00	705.60	704.49	1.10	
3+620.00	705.44	704.36	1.08	
3+640.00	705.26	704.22	1.04	
3+660.00	705.23	704.09	1.14	
3+680.00	705.16	703.95	1.21	
3+700.00	705.31	703.87	1.44	
3+720.00	705.75	704.09	1.66	
3+740.00	706.77	704.26	1.51	
3+760.00	706.00	704.42	1.58	
3+780.00	704.56	702.06	2.50	
3+800.00	704.05	702.48	1.57	
3+811.83	704.34	702.72	1.62	
3+820.00	704.66	702.89	1.77	
3+840.00	705.41	703.30	2.11	
3+851.51	705.71	703.54	2.17	
3+860.00	705.04	703.77	1.27	
3+880.00	705.58	704.12	1.45	
3+887.46	705.77	704.27	1.50	
3+900.00	705.70	704.38	1.32	
3+920.00	705.80	704.55	1.25	
3+940.00	706.01	704.72	1.29	
3+960.00	706.23	704.89	1.34	
3+980.00	706.38	705.06	1.31	
4+000.00	706.53	705.23	1.30	
4+020.00	706.75	705.40	1.34	
4+028.94	706.82	705.48	1.34	
4+040.00	706.97	705.58	1.39	
4+060.00	707.23	705.76	1.46	
4+080.00	707.53	706.22	1.31	
4+100.00	707.91	706.77	1.13	
4+120.00	708.32	707.32	1.00	
4+140.00	708.89	707.87	1.01	
4+145.38	709.05	708.02	1.03	
4+160.00	709.45	708.42	1.03	
4+180.00	710.05	708.97	1.08	
4+200.00	710.68	709.52	1.16	
4+220.00	711.28	710.07	1.22	
4+240.00	711.88	710.62	1.27	
4+260.00	712.67	711.17	1.50	
4+280.00	713.95	712.42	1.53	
4+300.00	714.45	713.07	1.38	
4+320.00	715.11	713.71	1.40	
4+340.00	715.80	714.36	1.45	
4+360.00	716.49	715.00	1.49	
4+380.00	716.97	715.65	1.32	
4+400.00	717.69	716.29	1.40	
4+420.00	718.72	716.94	1.78	
4+425.30	719.00	717.11	1.89	
4+440.00	719.20	717.58	1.62	
4+460.00	719.91	718.23	1.68	
4+480.00	720.40	718.87	1.53	
4+488.61	720.76	719.15	1.60	
4+500.00	721.34	719.52	1.82	
4+520.00	722.09	720.16	1.92	
4+540.00	722.58	720.81	1.77	
4+560.00	722.93	721.46	1.47	
4+580.00	723.46	722.10	1.36	
4+600.00	724.09	722.75	1.34	
4+620.00	724.70	723.39	1.31	
4+640.00	725.30	724.04	1.26	
4+660.00	725.95	724.69	1.26	
4+680.00	726.58	725.34	1.24	
4+700.00	726.21	724.99	1.21	
4+720.00	726.06	724.84	1.22	
4+740.00	726.06	724.84	1.22	
4+760.00	726.06	724.84	1.22	
4+780.00	726.06	724.84	1.22	
4+800.00	726.06	724.84	1.22	

**LONGITUDINAL SECTION**



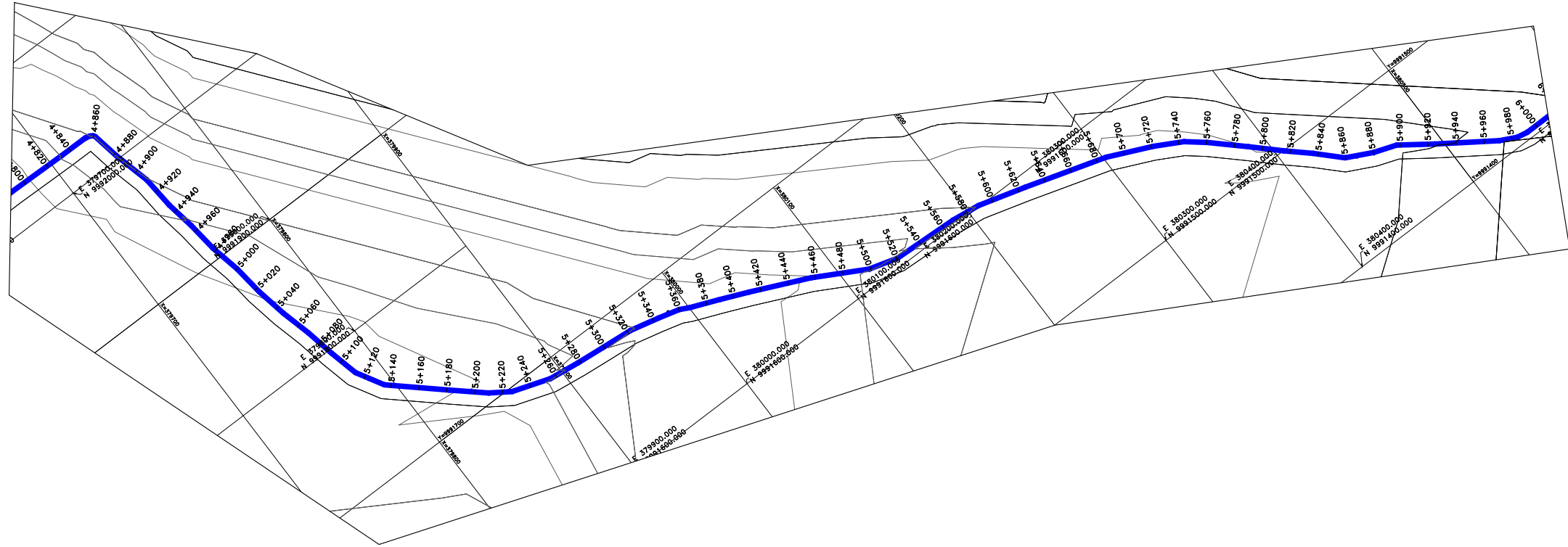
CLIENT: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 3+600.00 - 4+800.00  
SHEET 4 OF 11**

Designed by: A.M.M      Drawn by: A.M.M  
Checked by: D.N.W      Approved by: D.N.W  
Scale: H- 1:4000, V- 1:400      Date: MAY 2022  
DRG No. **KINKU/04**

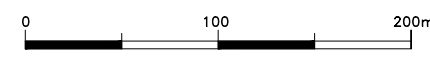


- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - 1480 CONTOURS
  - RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE

GEOLOGICAL CONDITION	
CH. 5+120.00 KINKU-TEE&SAV-01	
DISTANCE IN KILOMETERS	4+800.00
EXISTING GROUND LEVEL (m)	726.06
INVERT LEVELS (m)	724.69
DEPTH OF INVERT (m)	1.37
FLOW PARAMETERS	
DATUM (M)	

**LONGITUDINAL SECTION**



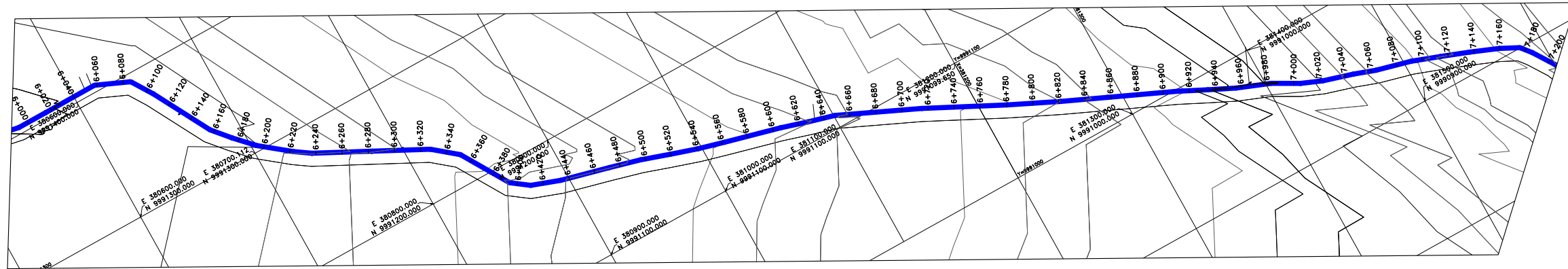
CLIENT: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

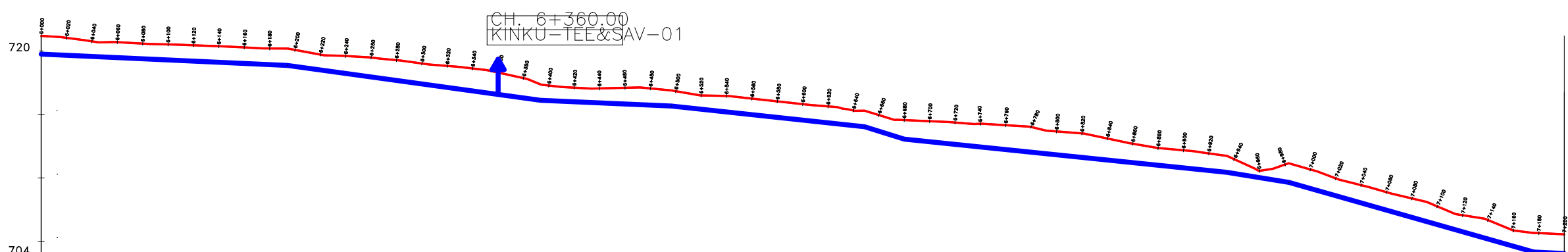
DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 4+800.00 - 6+000.00  
SHEET 5 OF 11**

Designed by: A.M.M	Drawn by: A.M.M
Checked by: D.N.W	Approved by: D.N.W
Scale: H- 1:4000, V- 1:400	Date: MAY 2022
DRG No. <b>KINKU/05</b>	REV



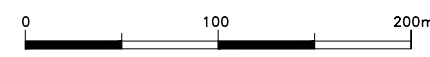
- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - 1480 CONTOURS
  - RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS
6+000.00	721.19	719.76	1.44	
6+020.00	721.08	719.68	1.41	
6+040.00	720.76	719.57	1.19	
6+060.00	720.71	719.44	1.27	
6+080.00	720.58	719.39	1.20	
6+100.00	720.52	719.30	1.22	
6+120.00	720.37	719.27	1.10	
6+140.00	720.45	719.20	1.25	
6+160.00	720.38	719.11	1.27	
6+180.00	720.21	718.95	1.26	
6+200.00	720.19	718.86	1.33	
6+220.00	719.78	718.78	1.21	
6+240.00	719.62	718.62	1.25	
6+260.00	719.48	717.96	1.53	
6+280.00	718.28	717.68	1.60	
6+300.00	719.02	717.41	1.61	
6+320.00	718.83	717.13	1.70	
6+340.00	718.78	717.03	1.75	
6+360.00	718.62	716.89	1.73	
6+380.00	718.30	716.58	1.72	
6+400.00	717.87	716.30	1.57	
6+420.00	717.83	716.13	1.70	
6+440.00	717.18	715.09	2.09	
6+460.00	717.11	715.00	2.11	
6+480.00	716.89	715.84	1.10	
6+500.00	716.89	715.81	1.08	
6+520.00	716.10	715.83	1.28	
6+540.00	717.13	715.76	1.37	
6+560.00	717.05	715.74	1.31	
6+580.00	716.89	715.87	1.02	
6+600.00	716.50	715.43	1.07	
6+620.00	716.48	715.39	1.09	
6+640.00	716.85	714.89	1.96	
6+660.00	716.03	714.77	1.26	
6+680.00	715.82	714.56	1.26	
6+700.00	715.75	714.49	1.26	
6+720.00	715.64	714.34	1.29	
6+740.00	715.58	714.26	1.32	
6+760.00	715.31	714.13	1.18	
6+780.00	715.30	714.09	1.21	
6+800.00	714.95	713.69	1.27	
6+820.00	714.56	713.06	1.50	
6+840.00	714.47	712.85	1.62	
6+860.00	714.49	712.70	1.79	
6+880.00	714.27	712.44	1.83	
6+900.00	714.16	712.24	1.92	
6+920.00	714.00	712.03	2.00	
6+940.00	713.67	711.85	1.84	
6+960.00	713.50	711.68	1.82	
6+980.00	713.11	711.41	1.70	
7+000.00	712.74	711.24	1.51	
7+020.00	712.36	711.00	1.36	
7+040.00	712.18	710.80	1.38	
7+060.00	712.08	710.68	1.39	
7+080.00	711.93	710.59	1.34	
7+100.00	711.74	710.45	1.29	
7+120.00	710.56	710.35	1.21	
7+140.00	710.26	710.09	1.17	
7+160.00	711.08	709.36	1.72	
7+180.00	710.67	709.17	1.50	
7+200.00	710.51	709.04	1.47	
7+220.00	709.87	708.69	1.18	
7+240.00	709.43	708.03	1.40	
7+260.00	709.28	707.88	1.40	
7+280.00	709.28	707.56	1.72	
7+300.00	708.39	706.90	1.49	
7+320.00	708.12	706.58	1.54	
7+340.00	707.76	706.35	1.43	
7+360.00	707.16	705.92	1.24	
7+380.00	707.07	705.76	1.31	
7+400.00	706.80	705.72	1.08	
7+420.00	705.88	704.68	1.24	
7+440.00	704.83	704.12	1.71	
7+460.00	705.63	704.12	1.51	
7+480.00	705.56	704.95	1.61	

**LONGITUDINAL SECTION**



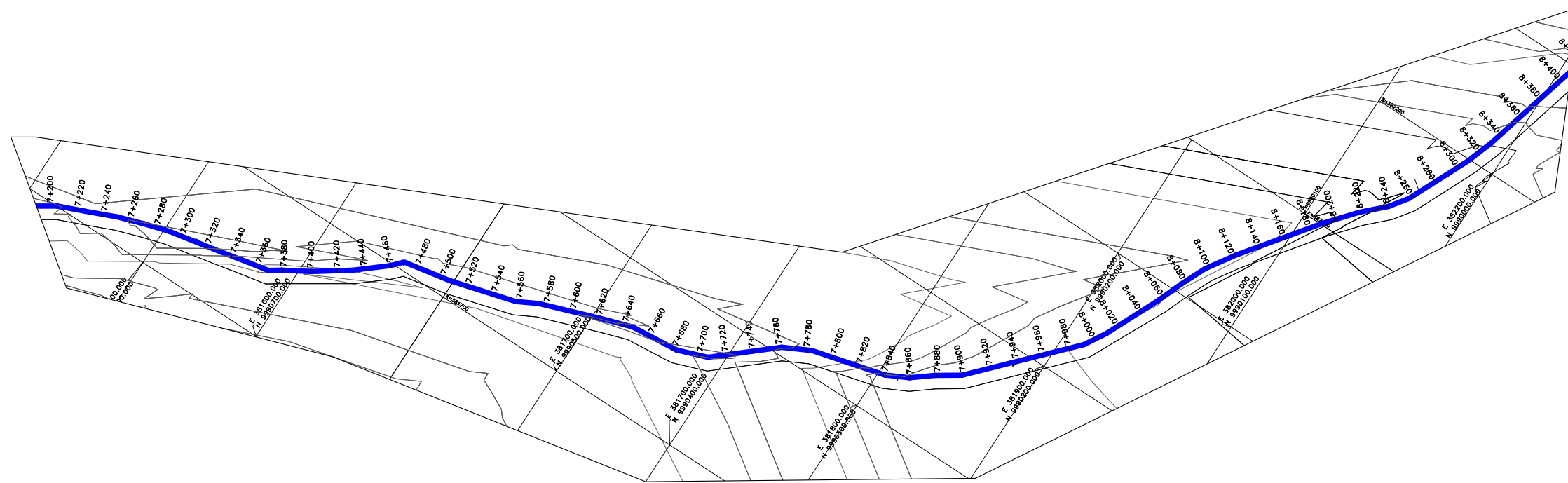
CLIENT: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

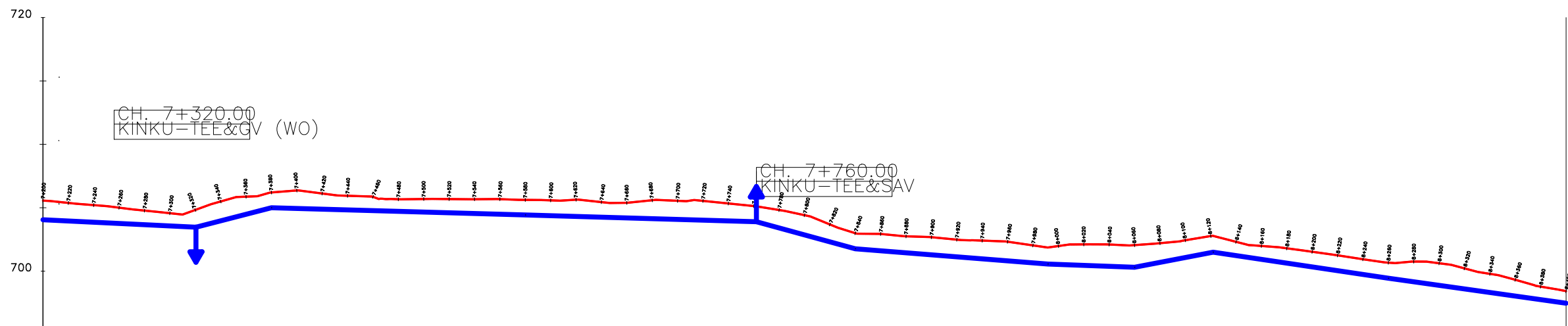
DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 6+000.00 - 7+200.00  
SHEET 6 OF 11**

Designed by: A.M.M	Drawn by: A.M.M
Checked by: D.N.W	Approved by: D.N.W
Scale: H: 1:4000, V: 1:400	Date: MAY 2022
<b>DRG No. KINKU/06</b>	REV



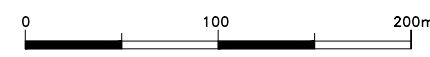
- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - 1480--- CONTOURS
  - ==== RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS	TYPE OF PIPE AND SIZE	GEOLOGICAL CONDITION
7+200.00	705.56	704.05	1.51			
7+220.00	705.33	703.03	1.43			
7+240.00	705.55	703.92	1.35			
7+260.00	705.21	703.86	1.35			
7+280.00	705.13	703.81	1.32			
7+300.00	705.01	703.76	1.25			
7+320.00	704.87	704.87	1.16			
7+340.00	704.78	703.66	1.11			
7+360.00	704.68	703.61	1.08			
7+380.00	704.57	704.57	1.00			
7+400.00	704.85	704.47	1.38			
7+420.00	705.27	703.77	1.50			
7+440.00	705.49	703.97	1.53			
7+460.00	705.84	704.28	1.56			
7+480.00	705.97	704.46	1.51			
7+500.00	706.07	704.73	1.40			
7+520.00	706.39	704.89	1.50			
7+540.00	706.39	704.94	1.45			
7+560.00	706.12	704.89	1.24			
7+580.00	705.97	704.85	1.12			
7+600.00	705.94	704.83	1.11			
7+620.00	705.88	704.79	1.09			
7+640.00	705.81	704.73	1.08			
7+660.00	705.67	704.72	0.95			
7+680.00	705.69	704.66	1.03			
7+700.00	705.70	704.64	1.06			
7+720.00	705.68	704.60	1.08			
7+740.00	705.67	704.55	1.12			
7+760.00	705.68	704.59	1.09			
7+780.00	705.64	704.51	1.13			
7+800.00	705.44	704.26	1.19			
7+820.00	705.35	704.24	1.14			
7+840.00	705.39	704.20	1.19			
7+860.00	705.59	704.14	1.45			
7+880.00	705.55	704.08	1.47			
7+900.00	705.52	704.06	1.46			
7+920.00	705.54	704.02	1.52			
7+940.00	705.34	703.96	1.37			
7+960.00	705.13	703.99	1.14			
7+980.00	704.92	703.91	1.01			
8+000.00	702.86	702.86	1.55			
8+020.00	702.48	702.31	1.37			
8+040.00	702.08	701.75	1.33			
8+060.00	702.08	701.61	1.47			
8+080.00	702.35	701.46	1.89			
8+100.00	702.00	701.39	1.38			
8+120.00	702.48	701.13	1.36			
8+140.00	702.41	700.97	1.44			
8+160.00	702.34	700.82	1.52			
8+180.00	702.03	700.65	1.38			
8+200.00	701.87	700.58	1.30			
8+220.00	701.98	700.53	1.45			
8+240.00	702.10	700.49	1.61			
8+260.00	702.11	700.46	1.66			
8+280.00	702.10	700.38	1.72			
8+300.00	702.03	700.32	1.70			
8+320.00	702.17	700.62	1.55			
8+340.00	702.39	701.83	1.56			
8+360.00	702.78	701.46	1.32			
8+380.00	702.31	701.23	1.09			
8+400.00	701.99	700.93	1.06			
8+420.00	701.80	700.63	1.17			
8+440.00	701.66	700.48	1.18			
8+460.00	701.53	700.34	1.19			
8+480.00	701.33	700.05	1.28			
8+500.00	700.94	699.71	1.20			
8+520.00	700.89	699.49	1.40			
8+540.00	700.76	699.16	1.59			
8+560.00	700.75	699.02	1.73			
8+580.00	700.62	698.88	1.74			
8+600.00	700.50	698.75	1.75			
8+620.00	700.42	698.60	1.82			
8+640.00	699.94	698.45	1.49			
8+660.00	699.79	698.32	1.47			
8+680.00	699.32	698.04	1.28			
8+700.00	698.78	697.75	1.03			
8+720.00	698.43	697.47	0.95			

**LONGITUDINAL SECTION**



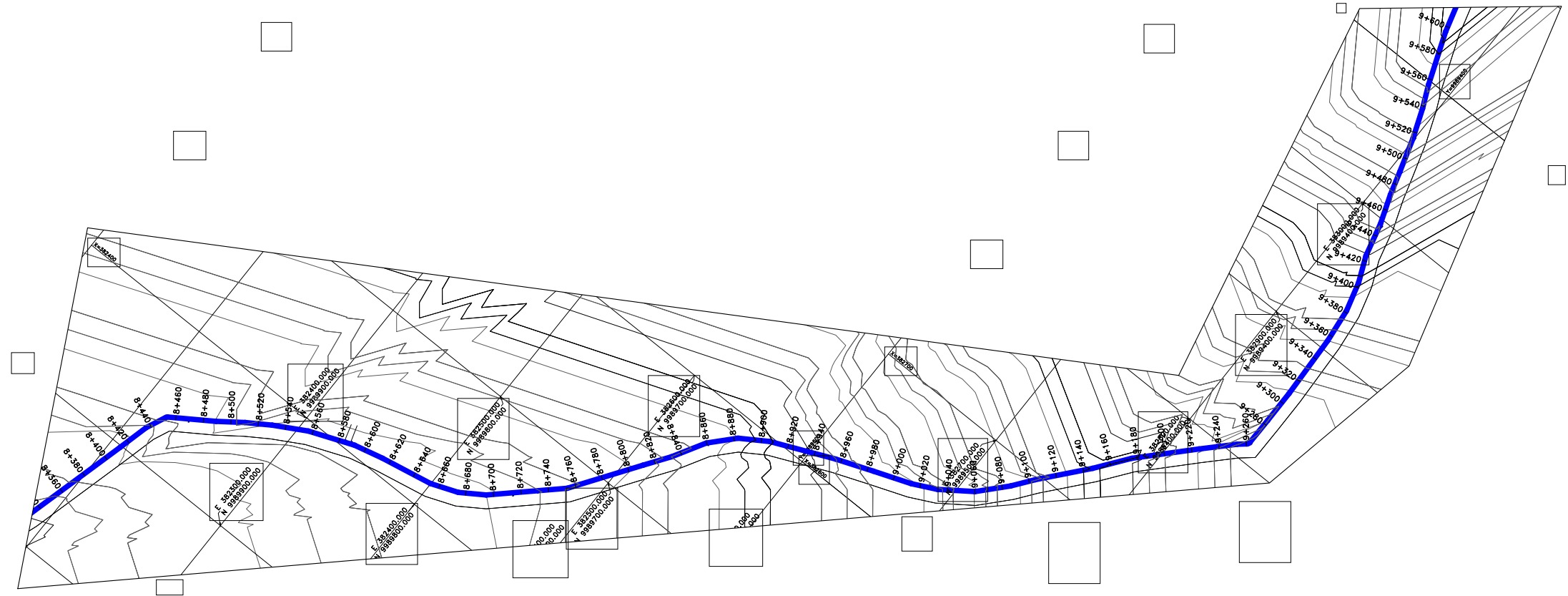
CLIENT: THE CHIEF EXECUTIVE OFFICER  
**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P.O BOX 1292 - 10100,  
 NYERI, KENYA

ENGINEER: THE CHIEF EXECUTIVE OFFICER  
**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P.O BOX 1292 - 10100,  
 NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE RELOCATION PROJECT**

DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND PROFILE SECTION**  
**CH. 7+200.00 - 8+400.00**  
**SHEET 7 OF 11**

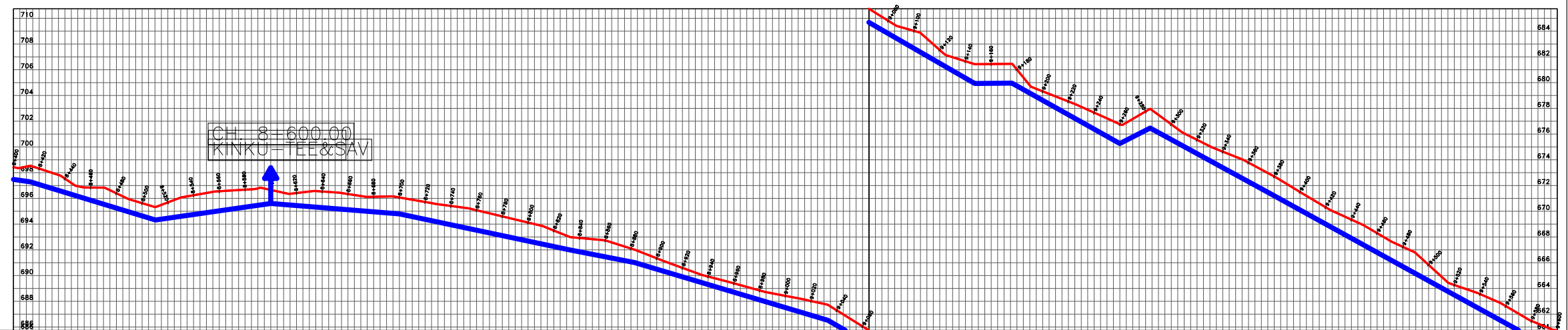
Designed by: A.M.M	Drawn by: A.M.M
Checked by: D.N.W	Approved by: D.N.W
Scale: H- 1:4000, V- 1:400	Date: MAY 2022
<b>DRG No. KINKU/07</b>	REV



- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

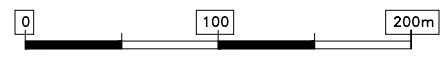
- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - CONTOURS
  - RIVER/STREAM
  - VIKING JOHNSON
  - GATE VALVE
  - SECTIONAL VALVE & No.
  - WASHOUT VALVE & No.
  - AIR VALVE & No.
  - WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE

Kibung'a to Nkundi PROFILE



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS	TYPE OF PIPE AND SIZE	GEOLOGICAL CONDITION
8+400.00	698.43	697.47	0.55			
8+413.08	696.54	697.29	1.25			
8+420.00	696.32	697.08	1.24			
8+430.00	697.75	696.53	1.29			
8+440.00	697.81	696.09	1.89			
8+450.00	695.34	695.86	0.38			
8+460.00	695.40	695.25	1.15			
8+480.00	695.96	694.98	0.99			
8+500.00	695.63	694.64	0.99			
8+510.00	695.32	694.33	1.00			
8+520.00	695.69	694.45	1.23			
8+530.00	696.08	694.60	1.48			
8+540.00	695.24	694.75	1.50			
8+550.00	695.53	694.98	1.55			
8+560.00	696.00	695.32	1.36			
8+580.00	696.83	695.48	1.35			
8+600.00	696.66	695.61	1.05			
8+610.00	696.35	695.49	0.86			
8+620.00	696.54	695.42	0.97			
8+640.00	696.44	695.28	1.26			
8+653.58	696.44	695.17	1.27			
8+660.00	696.34	695.12	1.22			
8+670.00	696.12	695.00	1.12			
8+680.00	696.16	694.84	1.32			
8+700.00	695.07	694.75	1.28			
8+720.00	695.72	694.37	1.35			
8+740.00	695.41	693.95	1.46			
8+750.00	695.68	693.65	1.87			
8+760.00	695.30	693.33	1.97			
8+780.00	694.60	693.10	1.50			
8+800.00	694.12	692.68	1.44			
8+811.20	693.85	692.45	1.41			
8+820.00	693.50	692.26	1.24			
8+832.88	693.09	691.99	1.00			
8+840.00	692.92	691.85	1.07			
8+850.00	692.74	691.45	1.28			
8+860.00	692.69	691.01	1.68			
8+900.00	691.34	690.50	0.84			
8+906.50	691.30	690.30	0.78			
8+920.00	690.60	689.90	0.70			
8+940.00	689.92	689.30	0.62			
8+950.00	689.50	688.84	0.66			
8+960.00	688.95	688.11	0.74			
8+980.00	688.42	687.96	0.91			
9+000.00	688.17	687.12	1.08			
9+013.48	688.02	686.91	1.11			
9+020.00	687.74	686.53	1.20			
9+040.00	687.29	686.12	1.17			
9+060.00	686.03	684.93	1.08			
9+080.00	684.81	683.81	0.99			
9+086.38	684.42	683.43	0.99			
9+100.00	683.96	682.98	1.37			
9+120.00	682.54	681.50	1.03			
9+140.00	681.66	680.35	1.31			
9+160.00	681.44	679.98	1.46			
9+180.00	681.45	679.95	1.50			
9+200.00	681.46	679.98	1.50			
9+220.00	679.32	678.62	0.70			
9+240.00	678.53	677.50	1.03			
9+253.58	678.31	677.19	1.12			
9+260.00	677.67	676.38	1.28			
9+280.00	677.26	675.65	1.61			
9+300.00	676.75	675.57	1.18			
9+308.85	676.14	675.12	1.02			
9+320.00	675.55	674.48	1.07			
9+340.00	674.63	673.39	1.25			
9+360.00	674.00	672.50	1.48			
9+380.00	673.88	671.88	1.80			
9+400.00	671.50	669.60	1.90			
9+420.00	670.60	668.00	1.60			
9+440.00	669.35	667.90	1.45			
9+460.00	668.98	667.40	1.54			
9+480.00	668.30	666.80	1.50			
9+471.48	667.23	666.18	1.46			
9+480.00	666.81	665.70	1.54			
9+500.00	665.85	664.59	1.24			
9+510.00	664.44	663.75	0.69			
9+530.00	663.64	662.48	1.15			
9+550.00	662.93	661.57	1.34			
9+580.00	661.47	660.19	1.28			
9+600.00	660.70	659.20	1.50			

LONGITUDINAL SECTION



CLIENT: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

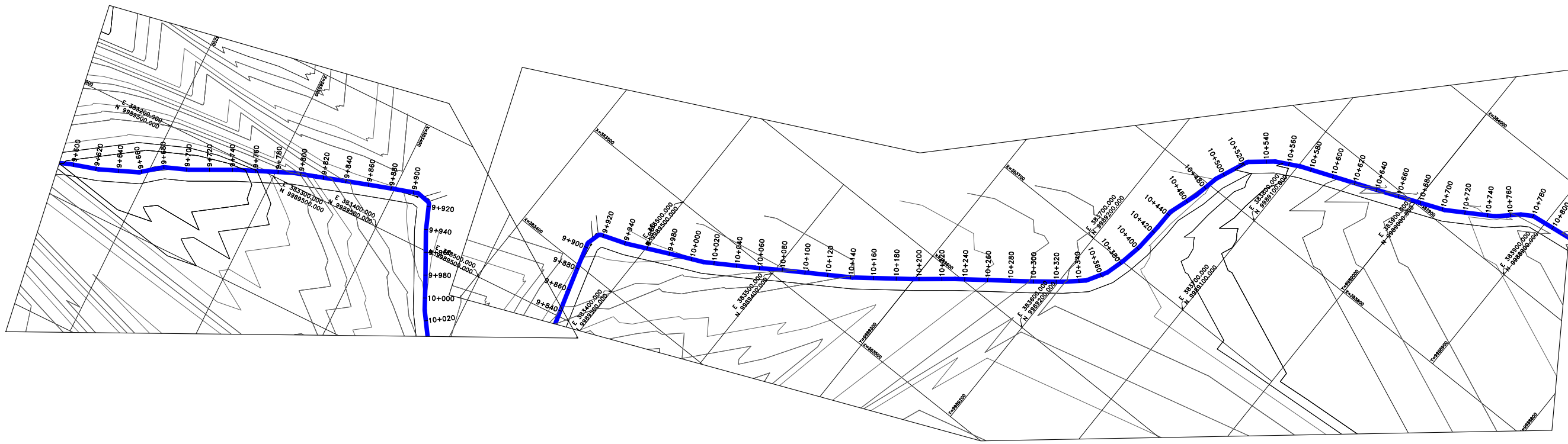
ENGINEER: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 8+400.00 - 9+600.00  
SHEET 8 OF 11**

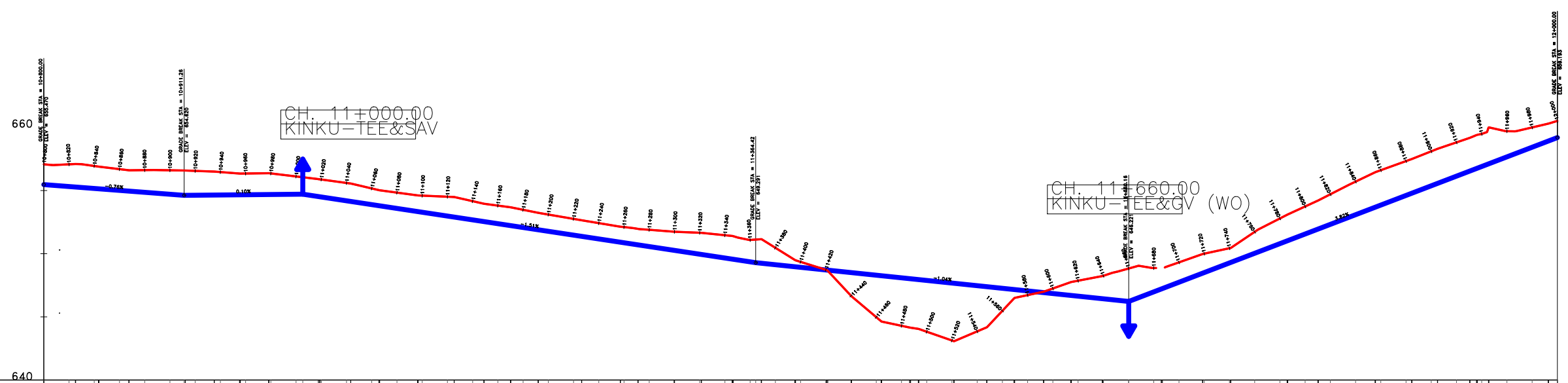
Designed by: A.M.M      Drawn by: A.M.M  
Checked by: D.N.W      Approved by: D.N.W  
Scale: H- 1:4000, V- 1:400      Date: MAY 2022  
DRG No. **KINKU/08**





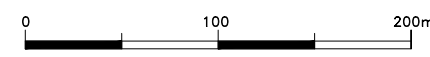
- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - 1480— CONTOURS
  - RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS	TYPE OF PIPE AND SIZE	GEOLOGICAL CONDITION
10+800.00	657.08	655.47	1.61			
10+820.00	657.10	655.32	1.78			
10+840.00	656.84	655.16	1.78			
10+860.00	656.60	654.95	1.65			
10+880.00	656.62	654.86	1.76			
10+900.00	656.60	654.71	1.89			
10+920.00	656.58	654.63	1.95			
10+940.00	656.50	654.54	1.96			
10+960.00	656.33	654.37	1.96			
10+980.00	656.37	654.37	1.69			
11+000.00	656.12	654.71	1.41			
11+020.00	656.05	654.71	1.34			
11+040.00	656.05	654.63	1.42			
11+060.00	655.89	654.13	1.76			
11+080.00	655.17	653.89	1.28			
11+100.00	655.03	653.89	1.14			
11+120.00	654.84	653.58	1.25			
11+140.00	654.63	653.33	1.30			
11+160.00	654.51	652.98	1.53			
11+180.00	654.49	652.99	1.50			
11+200.00	654.16	652.68	1.48			
11+220.00	653.95	652.54	1.41			
11+240.00	653.81	652.38	1.43			
11+260.00	653.67	652.22	1.45			
11+280.00	653.46	652.07	1.40			
11+300.00	653.28	651.89	1.34			
11+320.00	653.10	651.77	1.33			
11+340.00	652.76	651.47	1.29			
11+360.00	652.65	651.37	1.27			
11+380.00	652.42	651.17	1.25			
11+400.00	652.14	650.91	1.23			
11+420.00	651.98	650.70	1.27			
11+440.00	651.89	650.57	1.33			
11+460.00	651.74	650.28	1.46			
11+480.00	651.68	649.98	1.70			
11+500.00	651.46	649.66	1.80			
11+520.00	651.29	649.38	1.91			
11+540.00	651.15	649.28	1.87			
11+560.00	650.47	649.13	1.34			
11+580.00	649.59	648.97	0.62			
11+600.00	649.81	649.70	-0.09			
11+620.00	648.81	648.50	-1.31			
11+640.00	648.88	648.30	-1.58			
11+660.00	644.20	648.09	-3.80			
11+680.00	644.18	648.02	-3.84			
11+700.00	643.82	647.85	-4.03			
11+720.00	643.88	647.68	-3.80			
11+740.00	643.85	647.47	-3.62			
11+760.00	644.18	647.39	-3.21			
11+780.00	645.46	647.26	-1.78			
11+800.00	645.88	647.18	-1.30			
11+820.00	646.72	647.05	-0.33			
11+840.00	648.89	646.92	0.02			
11+860.00	647.25	646.85	0.40			
11+880.00	647.78	646.69	1.09			
11+900.00	648.21	646.45	1.76			
11+920.00	648.83	646.22	2.61			
11+940.00	648.87	646.98	1.89			
11+960.00	649.32	647.74	1.57			
11+980.00	649.88	648.48	1.40			
11+760.00	651.73	650.03	1.70			
11+780.00	652.79	650.80	1.99			
11+800.00	653.74	651.56	2.18			
11+820.00	654.70	652.32	2.38			
11+840.00	655.71	653.09	2.62			
11+860.00	656.48	653.89	2.59			
11+880.00	657.48	654.74	2.74			
11+900.00	658.81	655.58	3.23			
11+920.00	659.17	656.54	2.63			
11+940.00	659.70	657.11	2.59			
11+960.00	659.70	657.67	2.03			
11+980.00	660.00	658.43	1.57			
11+990.00	660.30	658.92	1.38			
12+000.00	660.51	659.19	1.32			

**LONGITUDINAL SECTION**



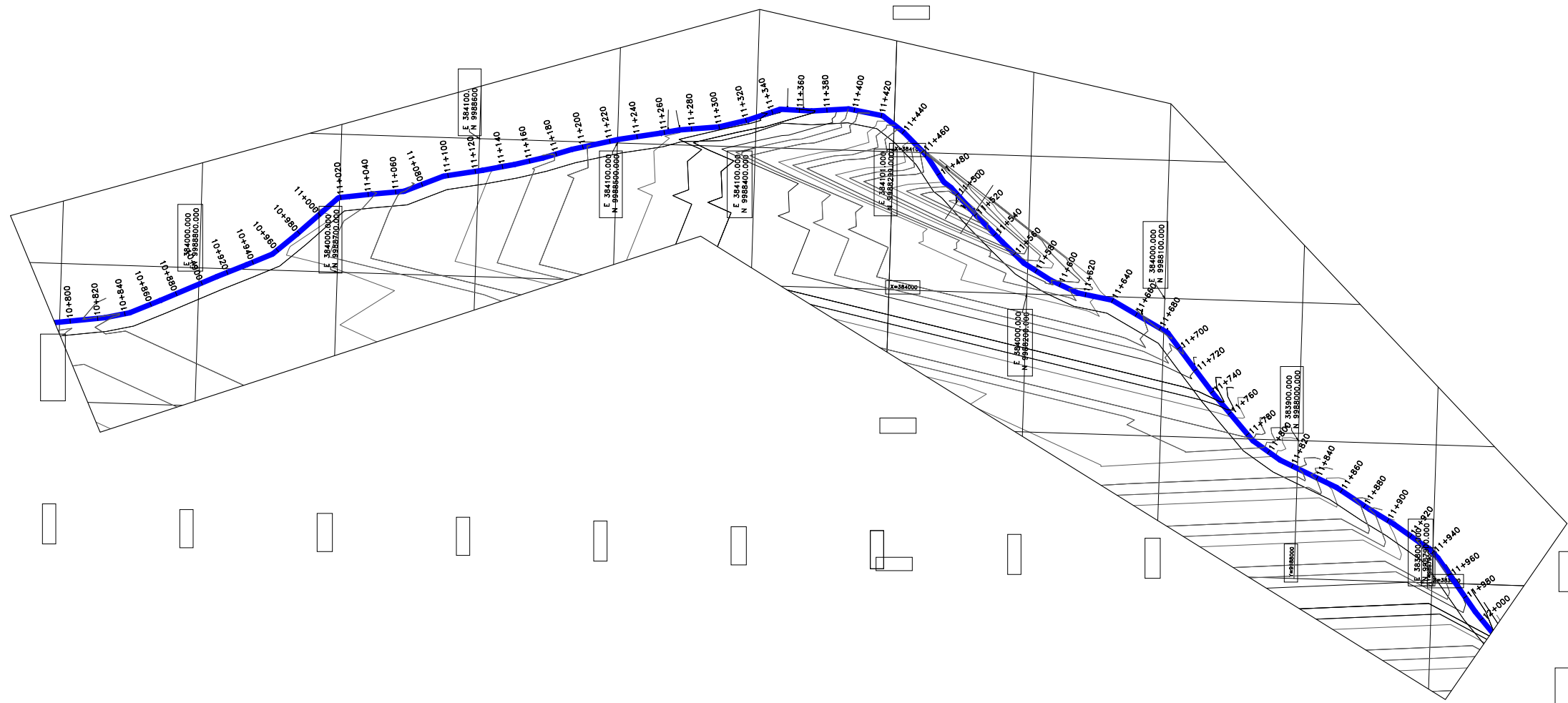
CLIENT: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

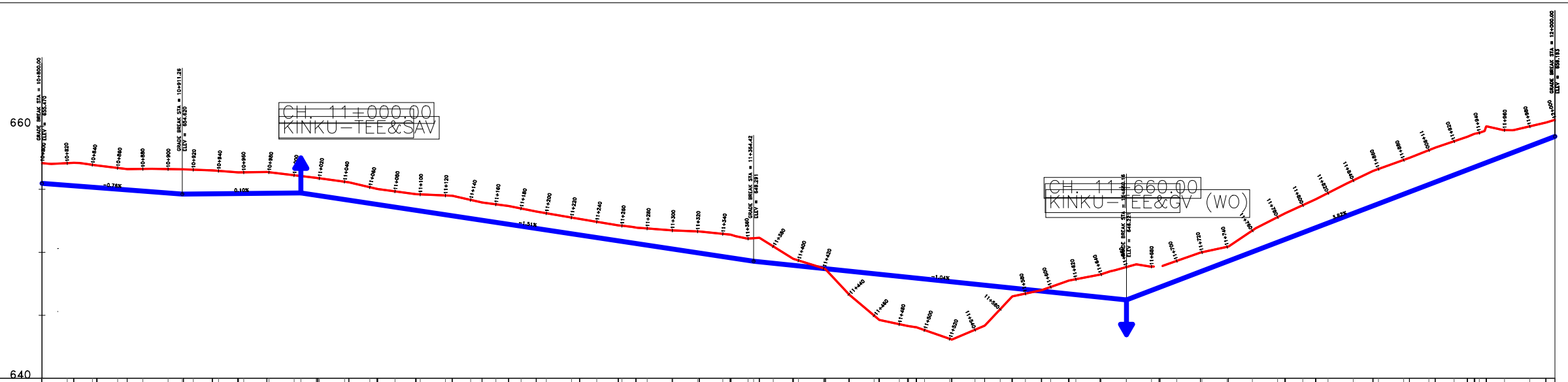
DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 9+600.00 - 10+800.00  
SHEET 9 OF 11**

Designed by: A.M.M	Drawn by: A.M.M
Checked by: D.N.W	Approved by: D.N.W
Scale: H: 1:4000, V: 1:400	Date: MAY 2022
DRG No. KINKU/09	REV



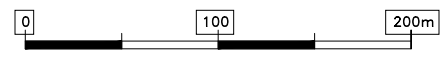
- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - CONTOURS
  - RIVER/STREAM
  - PROPOSED WATER LINE
  - VIKING JOHNSON
  - GATE VALVE
  - SECTIONAL VALVE & No.
  - WASHOUT VALVE & No.
  - AIR VALVE & No.
  - WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS	TYPE OF PIPE AND SIZE	GEOLOGICAL CONDITION
10+800.00	657.08	655.47	1.61			
10+820.00	657.06	655.28	1.78			
10+840.00	656.86	655.19	1.67			
10+860.00	656.69	655.01	1.68			
10+880.00	656.50	654.95	1.55			
10+900.00	656.52	654.86	1.66			
10+920.00	656.60	654.71	1.89			
10+940.00	656.56	654.63	1.93			
10+960.00	656.50	654.63	1.87			
10+980.00	656.39	654.69	1.68			
11+000.00	656.32	654.69	1.63			
11+020.00	656.12	654.71	1.41			
11+040.00	656.05	654.71	1.34			
11+060.00	656.09	654.81	1.28			
11+080.00	656.56	654.12	1.44			
11+100.00	655.56	654.12	1.44			
11+120.00	655.17	653.89	1.28			
11+140.00	655.92	653.89	1.23			
11+160.00	654.84	653.58	1.25			
11+180.00	653.67	653.22	1.45			
11+200.00	653.48	652.07	1.40			
11+220.00	652.76	651.89	1.34			
11+240.00	652.85	651.57	1.27			
11+260.00	652.42	651.17	1.25			
11+280.00	652.14	650.81	1.33			
11+300.00	651.98	650.70	1.27			
11+320.00	651.89	650.57	1.33			
11+340.00	651.74	650.25	1.48			
11+360.00	651.88	649.84	1.78			
11+380.00	651.46	649.66	1.80			
11+400.00	651.26	649.53	1.83			
11+420.00	651.07	649.28	1.73			
11+440.00	651.15	649.28	1.80			
11+460.00	650.47	649.13	1.34			
11+480.00	649.25	648.83	0.42			
11+500.00	648.88	648.70	0.06			
11+520.00	648.88	648.59	0.01			
11+540.00	648.85	648.47	0.04			
11+560.00	648.48	648.25	0.23			
11+580.00	648.48	648.05	0.43			
11+600.00	648.99	648.92	0.08			
11+620.00	648.85	648.75	0.10			
11+640.00	648.76	648.63	0.13			
11+660.00	648.25	648.41	0.84			
11+680.00	648.83	648.22	0.61			
11+700.00	648.97	648.97	0.00			
11+720.00	649.32	649.32	0.00			
11+740.00	649.45	649.45	0.00			
11+760.00	650.45	650.45	0.00			
11+780.00	652.79	650.80	1.99			
11+800.00	653.09	651.09	2.00			
11+820.00	653.74	651.56	2.18			
11+840.00	654.22	651.98	2.24			
11+860.00	654.70	652.52	2.38			
11+880.00	655.71	653.09	2.62			
11+900.00	656.44	653.89	2.55			
11+920.00	657.33	654.79	2.54			
11+940.00	658.30	655.88	2.42			
11+960.00	659.17	656.14	2.67			
11+980.00	659.38	656.58	2.81			
11+999.84	659.98	657.11	2.88			
12+000.00	659.70	657.67	2.03			
12+000.00	660.00	658.43	1.57			
12+000.00	660.30	659.92	1.38			
12+000.00	660.51	659.19	1.32			

**LONGITUDINAL SECTION**



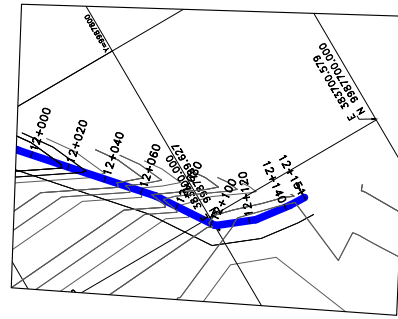
CLIENT: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY  
P.O BOX 1292 - 10100,  
NYERI, KENYA

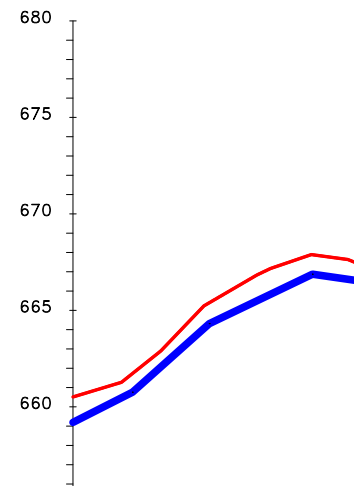
PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION  
CH. 10+800.00 - 12+000.00  
SHEET 10 OF 11**

Designed by: A.M.M	Drawn by: A.M.M
Checked by: D.N.W	Approved by: D.N.W
Scale: H: 1:4000, V: 1:400	Date: MAY 2022
DRG No. <b>KINKU/10</b>	REV



### Kibung'a to Nkundi



DISTANCE IN KILOMETERS	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	DEPTH OF INVERT (m)	FLOW PARAMETERS	DATUM (m)	TYPE OF PIPE AND SIZE
12+000.00	660.51	659.19	1.32			
12+020.00	661.12	660.21	0.91			
12+025.00	661.77	660.46	0.91			
12+030.00	661.75	660.76	0.97			
12+040.00	662.45	661.57	0.88			
12+060.00	664.41	663.36	1.05			
12+065.00	664.30	664.09	1.02			
12+080.00	665.94	664.76	1.18			
12+100.00	667.05	665.20	1.84			
12+105.00	667.66	666.09	1.88			
12+110.00	667.83	666.65	1.82			
12+151.09	667.28	666.49	0.80			

### LONGITUDINAL SECTION



- NOTES:**
1. CONTOUR LEVELS ARE IN METERS AT TWO METER INTERVALS
  2. GRID VALUES ARE IN METERS AT 100 METER INTERVALS
  3. GEOLOGICAL CONDITIONS INDICATED ON DRAWING ARE FOR GENERAL GUIDANCE ONLY
  4. MINIMUM PIPELINE SLOPES TO BE 1:200
  5. DRAWING TO BE READ IN CONJUNCTION WITH STANDARD DRAWINGS

- LEGEND:**
- MURRAM ROAD
  - FENCE / HEDGE
  - 1480--- CONTOURS
  - ==== RIVER/STREAM
  - V.J. VIKING JOHNSON
  - GV GATE VALVE
  - SV-01 SECTIONAL VALVE & No.
  - WO-01 WASHOUT VALVE & No.
  - SAV-01 AIR VALVE & No.
  - WM WATER METER
  - PROPOSED MASONRY CHAMBER
  - PROPOSED VALVE BOX
  - PROPOSED WATER LINE

CLIENT: **THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY**  
P.O BOX 1292 - 10100,  
NYERI, KENYA

ENGINEER: **THE CHIEF EXECUTIVE OFFICER  
TANA WATER WORKS  
DEVELOPMENT AGENCY**  
P.O BOX 1292 - 10100,  
NYERI, KENYA

PROJECT TITLE:  
**KIBUNG'A KAKIMIKI PIPELINE  
RELOCATION PROJECT**

DRAWING TITLE:  
**KIBUNG'A TO NKUNDI PLAN AND  
PROFILE SECTION**  
**CH. 12+000.00 - 12+151.09**  
**SHEET 11 OF 11**

Designed by: A.M.M	Drawn by: A.M.M
Checked by: D.N.W	Approved by: D.N.W
Scale: H- 1:4000, V- 1:400	Date: MAY 2022

DRG No. **KINKU/11** REV