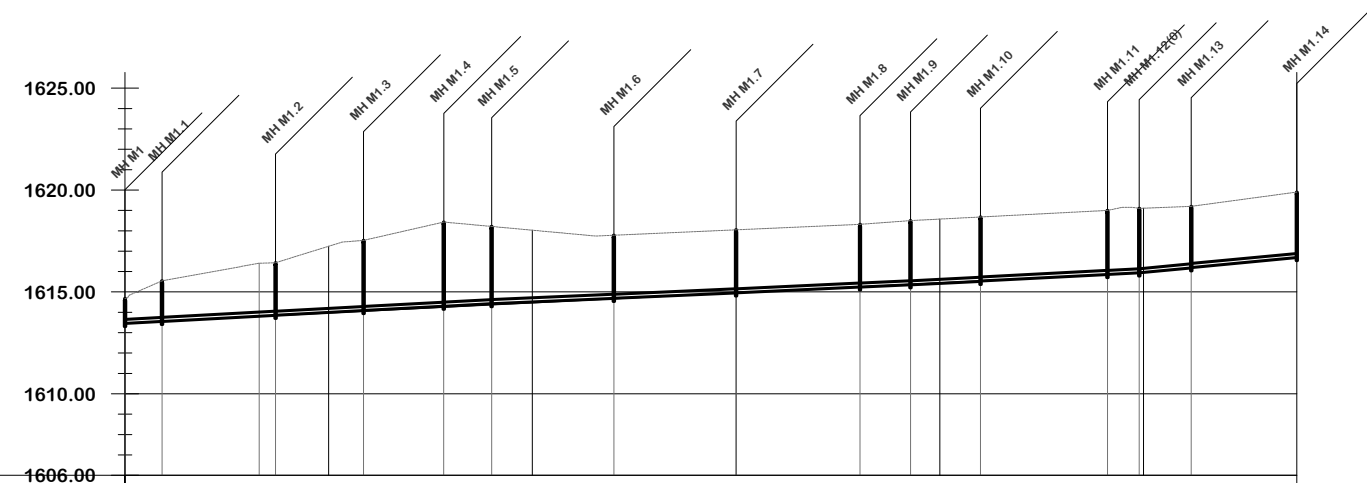




- NOTES**
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
  2. ALL LEVELS ARE IN METERS AND COORDINATES ARE BASED ON UTM.
  3. THE MANHOLE INVERT LEVELS AND PIPE SLOPES ARE AS SHOWN ON DRAWINGS UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
  4. MANHOLE TO BE 25MM ABOVE THE GROUND ADJACENT TO ROAD, 150MM ON VERGES, AND 500MM ON OPEN GROUND. THE DEPTHS INDICATED ON THE DRAWING EXCLUDE THESE PROVISIONS.
  5. SEWERS ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE TYPE 'D' HAUNCH.
  6. FOR BEDDING, HAUNCH AND MANHOLE DETAILS REFER TO THE APPROVED STANDARD DRAWINGS.
  7. ALL ROAD AND RIVER CROSSINGS TYPE 'D' HAUNCH TO BE ADOPTED.
  8. ACTUAL POSITION OF MANHOLES IS AS SHOWN OR AS DIRECTED BY THE ENGINEER ON SITE.

- LEGEND:**
- PROPOSED SEWER LINE ALIGNMENT
  - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
 TR — TARMAC ROAD  
 ER — EARTH ROAD  
 GR — GRAVEL ROAD  
 — CUT



TYPE & SIZE OF PIPE	OD 200MM DWC HDPE																													
EXISTING GROUND LEVEL (m)	1614.68	1615.58	1615.94	1616.30	1616.62	1617.24	1617.60	1618.05	1618.40	1618.21	1618.03	1617.84	1617.78	1617.87	1617.96	1618.05	1618.14	1618.22	1618.31	1618.46	1618.57	1618.68	1618.78	1618.88	1618.99	1619.11	1619.19	1619.42	1619.69	
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+560	0+575.26
TRENCH BOTTOM LEVELS (m)	1614.68	1615.58	1615.94	1616.30	1616.62	1617.24	1617.60	1618.05	1618.40	1618.21	1618.03	1617.84	1617.78	1617.87	1617.96	1618.05	1618.14	1618.22	1618.31	1618.46	1618.57	1618.68	1618.78	1618.88	1618.99	1619.11	1619.19	1619.42	1619.69	
DEPTH OF PIPE INVERT (m)		-2.018	-2.280	-2.542	-2.763	-3.28	-3.539	-3.896	-4.142	-3.858	-3.57	-3.290	-3.128	-3.117	-3.106	-3.10	-3.084	-3.073	-3.063	-3.108	-3.12	-3.129	-3.133	-3.137	-3.140	-3.15	-3.034	-3.078	-3.154	
SLOPE OF PIPE	7:185	1:186	1:187	1:189	1:188	1:226	1:224	1:214	1:225	1:203	1:194	1:190	1:104	1:106																
MANHOLE No. & POSITION		382072.1497 10025806.6564		382064.8060 10025813.0260	10025861.6915		382049.9550 10025902.7400		382027.8720 10025935.2960	10025910.2788 10025950.9357		381965.4296 10025990.7956		381920.5833 10026030.6555		381875.1152 10026071.0682	381871.2605 10026095.5723		381866.6530 10026142.1500	381866.1240 10026207.6900		381890.2380 10026220.3900								

**FOR CONSTRUCTION**

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REV	REVISIONS	SIGN	DATE	APPROVED
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	ISSUED FOR CONSTRUCTION BY			
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TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
 NYERI

PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

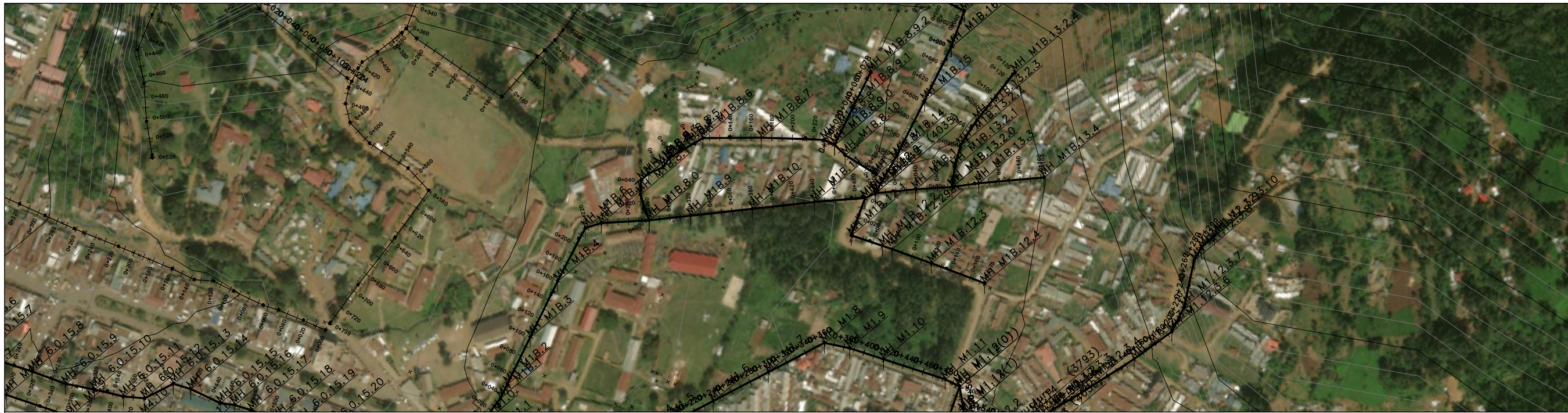
Civil/Structural Engineers

TANA WATER WORKS DEVELOPMENT AGENCY  
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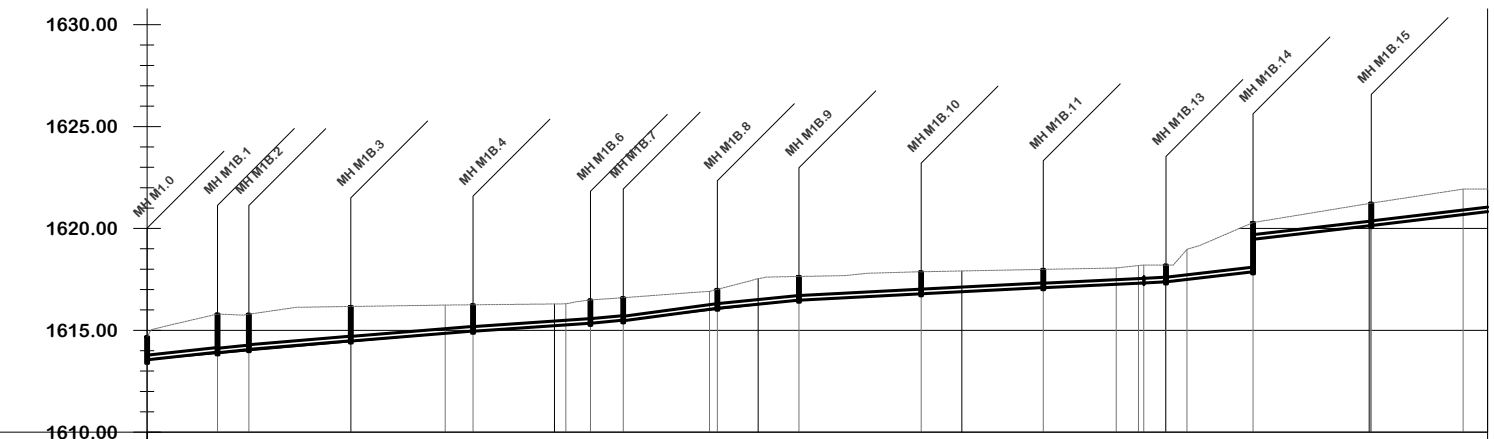
Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
 MAUA GIRLS 1  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/MG- PD REV



- NOTES**
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TYPE & SIZE OF PIPE	OD 200MM DWC HDPE																																			
EXISTING GROUND LEVEL (m)	1614.68	1615.46	1615.78	1615.94	1616.14	1616.17	1616.20	1616.23	1616.25	1616.27	1616.29	1616.51	1616.65	1616.80	1617.01	1617.53	1617.64	1617.68	1617.82	1617.88	1617.91	1617.95	1617.99	1618.03	1618.11	1618.20	1619.30	1620.16	1620.57	1620.90	1621.23	1621.53	1621.84	1624.93		
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+560	0+580	0+600	0+620	0+640	0+658.10		
TRENCH BOTTOM LEVELS (m)		1613.73	1613.91	1614.08	1614.26	1614.44	1614.61	1614.79	1614.96	1615.10	1615.23	1615.37	1615.57	1615.80	1616.03	1616.26	1616.48	1616.58	1616.69	1616.79	1616.90	1617.00	1617.10	1617.20	1617.29	1617.40	1617.62	1617.84	1619.67	1619.90	1620.14	1620.37	1620.61	1620.82		
DEPTH OF PIPE INVERT (m)		1.731	1.871	1.854	1.882	1.74	1.589	1.443	1.291	1.177	1.06	1.134	1.077	0.999	0.984	1.28	1.162	1.096	1.131	1.083	1.02	0.953	0.888	0.834	0.819	0.80	1.683	2.322	0.902	0.994	1.09	1.158	1.228	1.11		
SLOPE OF PIPE		1:91	1:100	1:119	1:123	1:145	1:106	1:75	1:100	1:192	1:195	1:207	1:197	1:86	1:86	1:84																				
MANHOLE No. & POSITION			382035.5210 10025788.3700 382020.2046 10025799.7820		381970.4158 10025904.3722		381924.2310 10025808.6300 381870.6788 10025809.9411		381865.3006 10025814.2386 381843.5753 10025829.3907		381823.6680 10025834.5592		381806.4500 10025907.2018		381779.1230 10025960.6174		381751.7959 10026014.0331		381735.4880 10026018.6590 381719.6560 10026022.2233 381703.5287 10026067.2500		381680.9760 10026072.4100		381623.7618 10026076.6868		381578.5180 10026083.8800											


- LEGEND:**
- PROPOSED SEWER LINE ALIGNMENT
  - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
 TR — TARMAC ROAD  
 ER — EARTH ROAD  
 GR — GRAVEL ROAD  
 — CUT

**FOR CONSTRUCTION**

signed \_\_\_\_\_

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	ISSUED FOR CONSTRUCTION BY			
	CHECKED			

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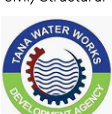


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PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers



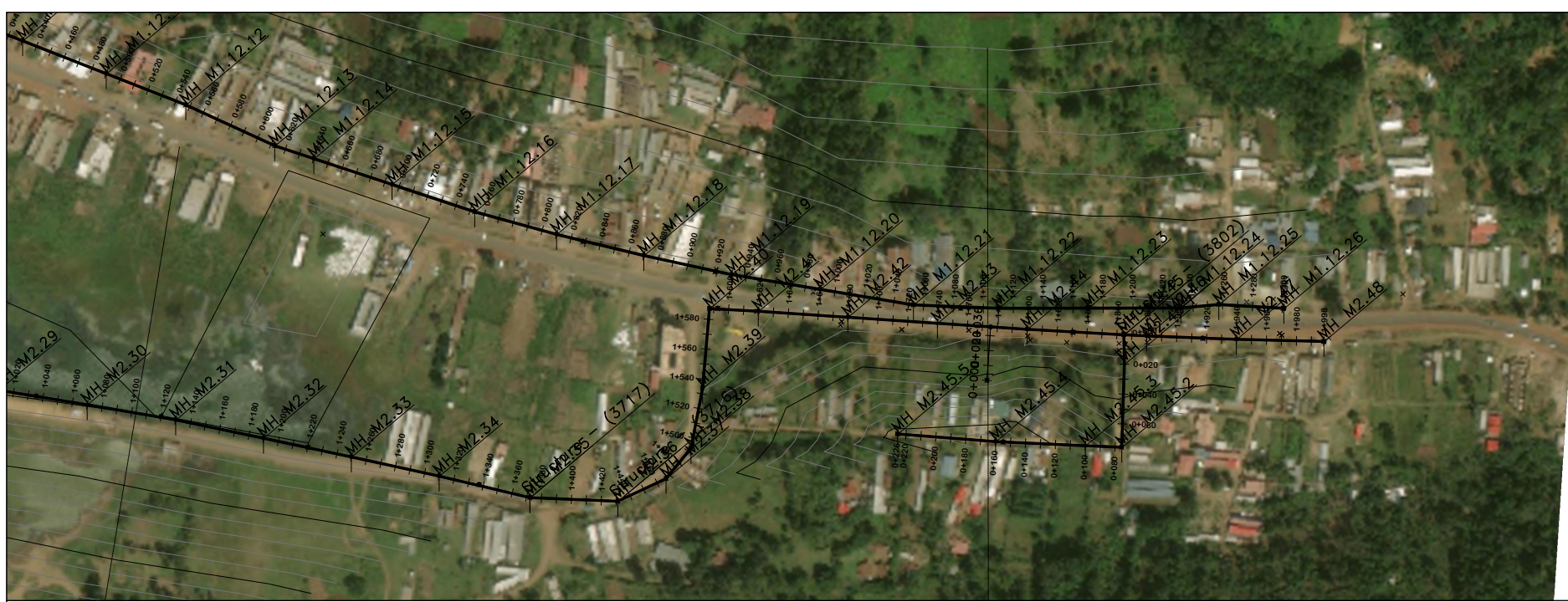
TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
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Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
 MAUA GIRLS 2 LINE  
 PLAN AND PROFILE (SHEET 1 OF 1)

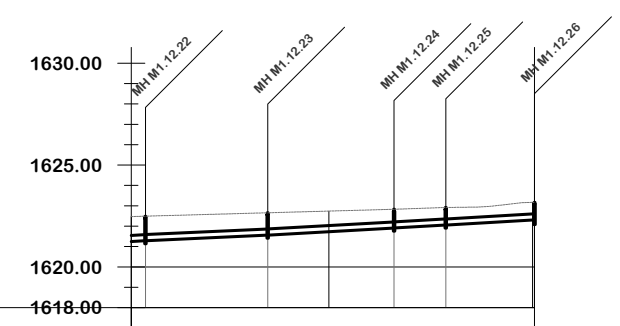
Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/OLMSP/MG2L-10026083-8800





- NOTES**
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- LEGEND:**
- PROPOSED SEWER LINE ALIGNMENT
  - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
 TR — TARMAC ROAD  
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 GR — GRAVEL ROAD  
 — CUT



TYPE & SIZE OF PIPE	OD 200MM DWC HDPE PIPE										
EXISTING GROUND LEVEL (m)	1622.47	1622.52	1622.57	1622.63	1622.69	1622.74	1622.80	1622.86	1622.92	1622.98	1623.17
CHAINAGE	1+103	1+120	1+140	1+160	1+180	1+200	1+220	1+240	1+260	1+280	1+301
TRENCH BOTTOM LEVELS (m)	1621.25	1621.33	1621.42	1621.52	1621.62	1621.73	1621.84	1621.95	1622.07	1622.18	1622.30
DEPTH OF PIPE INVERT (m)	1.23	1.187	1.150	1.114	1.068	1.01	0.955	0.903	0.852	0.798	0.87
SLOPE OF PIPE	1:169	1:219		1:179			1:175	1:172			
MANHOLE No. & POSITION	382081.4167 10027234.4522		382077.4504 10027294.3210			382073.3510 10027396.2000		382068.3860 10027381.3000			

**FOR CONSTRUCTION**

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REV	REVISIONS	SIGN	DATE	APPROVED
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	ISSUED FOR CONSTRUCTION BY			
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TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
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PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers

TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
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Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
 KHETIAS LINE  
 PLAN AND PROFILE (SHEET 2 OF 2)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/KL-2 PD REV







- NOTES**
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- LEGEND:**
- PROPOSED SEWER LINE ALIGNMENT
  - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
 TR — TARMAC ROAD  
 ER — EARTH ROAD  
 GR — GRAVEL ROAD  
 — CUT

FOR CONSTRUCTION  
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REV	REVISIONS	SIGN	DATE	APPROVED
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	ISSUED FOR CONSTRUCTION BY			
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TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
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PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers

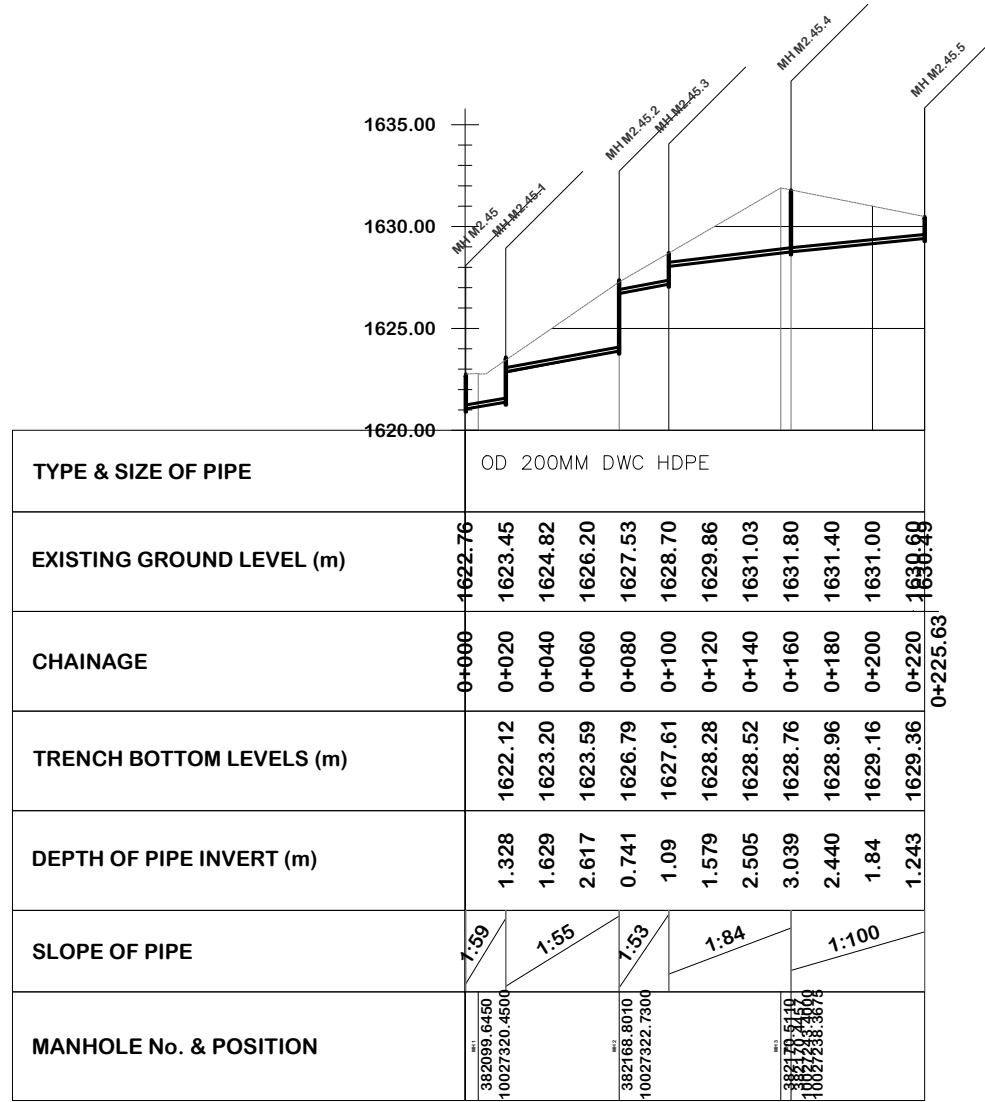
TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
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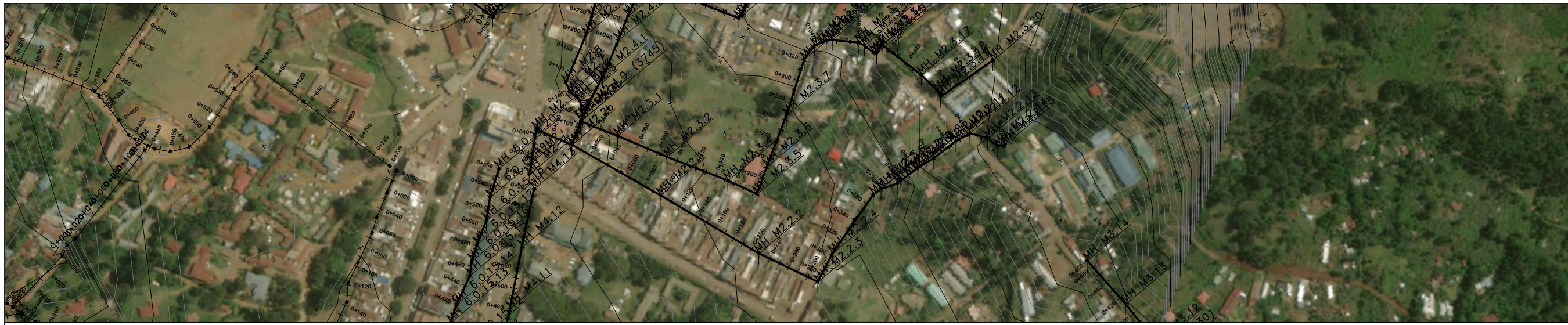
Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
 TOTAL LAST MILE 1  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:

C STATUS DRAWING No. TWWDA/MALMSP/TLM1 PD REV





**NOTES**

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**LEGEND:**

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- EXISTING GROUND PROFILE
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- PIPE INVERT PROFILE
  
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- PN — NOMINAL PRESSURE
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- ER — EARTH ROAD
- GR — GRAVEL ROAD
- CUT

FOR CONSTRUCTION  
signed

REV	REVISIONS	SIGN	DATE	APPROVED
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TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
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PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

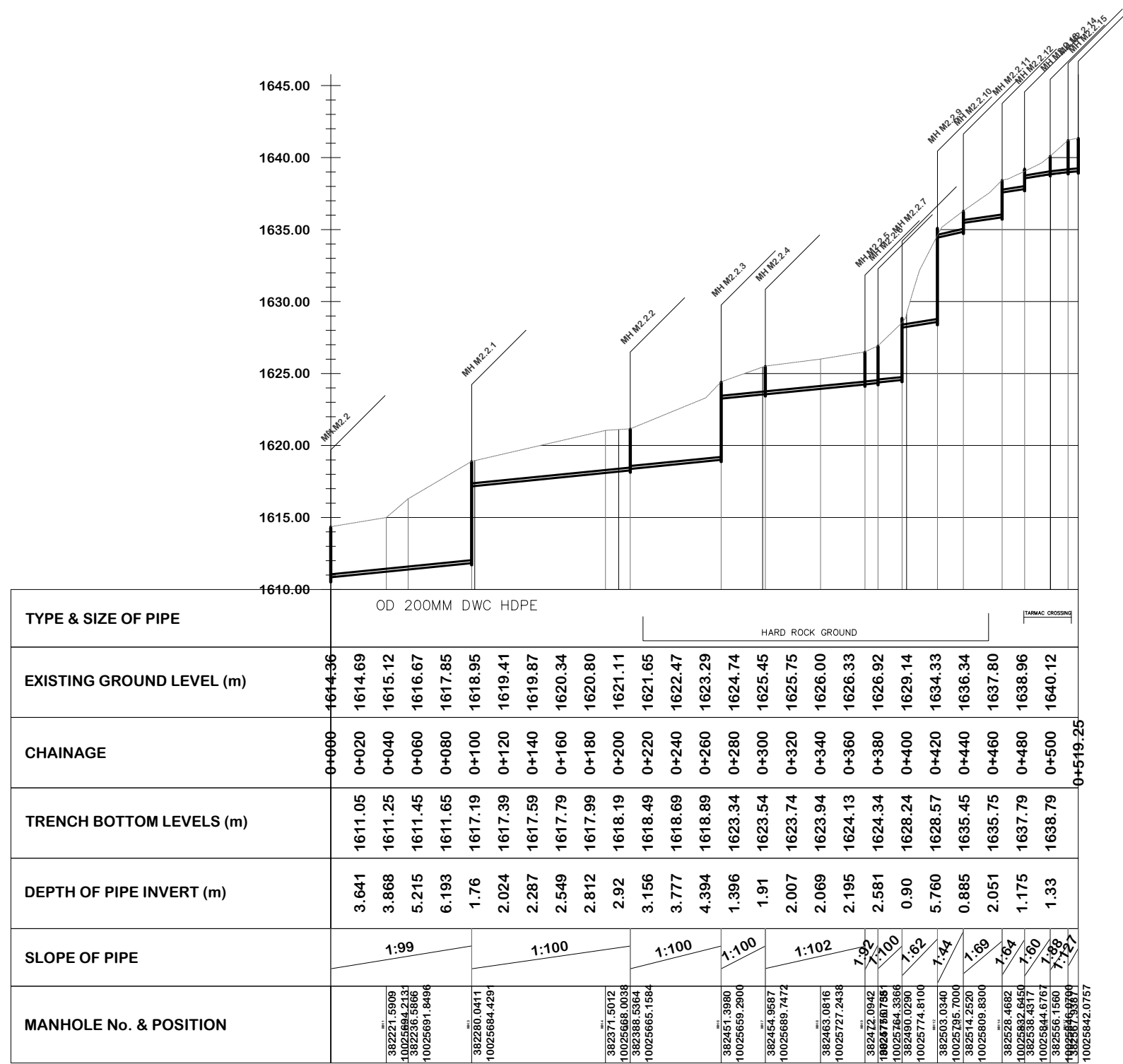
Civil/Structural Engineers



TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

Drawing Title  
MAUA LAST MILE SEWERAGE PROJECT  
NYMBENE HOSPITAL LINE  
PLAN AND PROFILE (SHEET 1 OF 1)

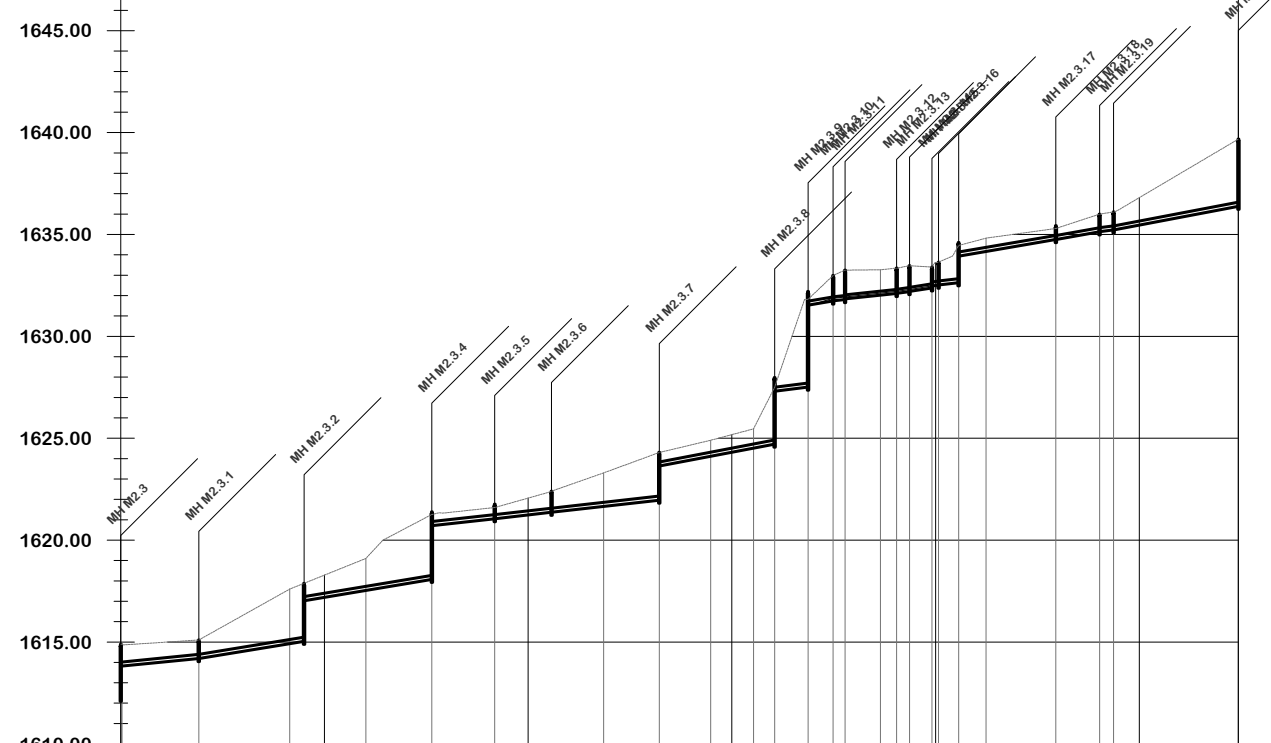
Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/NHL- PD REV







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TYPE & SIZE OF PIPE	OD 200MM DWC HDPE																													
EXISTING GROUND LEVEL (m)	1614.89	1614.98	1615.19	1616.31	1617.43	1618.28	1619.09	1620.59	1621.35	1621.56	1622.06	1622.70	1623.41	1624.14	1624.67	1625.18	1627.31	1632.06	1633.25	1633.34	1633.62	1634.69	1635.03	1635.33	1635.98	1636.81	1637.99	1639.17	1639.68	
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+548.67	
TRENCH BOTTOM LEVELS (m)	1614.01	1614.22	1614.55	1614.88	1617.19	1617.53	1617.86	1620.79	1621.01	1621.24	1621.47	1621.69	1621.91	1623.93	1624.31	1624.70	1631.58	1631.98	1632.20	1632.50	1634.08	1634.43	1634.77	1635.12	1635.46	1635.84	1636.22			
DEPTH OF PIPE INVERT (m)	0.969	0.970	1.763	2.556	1.09	1.562	2.732	0.552	0.551	0.83	1.236	1.719	2.227	0.738	0.86	2.610	0.489	1.271	1.145	1.12	0.608	0.604	0.554	0.858	1.34	2.146	2.949			
SLOPE OF PIPE	1:100	1:61	1:60	1:92	1:87	1:89	1:53	1:80	1:69	1:93	1:94	1:73	1:64	1:50	1:58	1:56	1:78	1:53												
MANHOLE No. & POSITION	382183.9980 10025724.2630	382221.7060 10025723.4700	382303.6320 10025720.5600	382266.3230 10025721.3700	382303.6320 10025720.5600	382356.0489 10025720.3419	382366.8464 10025718.0766	382366.4110 10025771.5100	382366.8780 10025798.8200	382365.4960 10025824.0100	382364.2570 10025824.0100	382366.4240 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100	382366.7962 10025824.0100


- LEGEND:**
- PROPOSED SEWER LINE ALIGNMENT
  - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
 TR — TARMAC ROAD  
 ER — EARTH ROAD  
 GR — GRAVEL ROAD  
 — CUT

**FOR CONSTRUCTION**

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REV	REVISIONS	SIGN	DATE	APPROVED
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	BY			
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	ISSUED FOR CONSTRUCTION BY			
	CHECKED			

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TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
 NYERI

PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

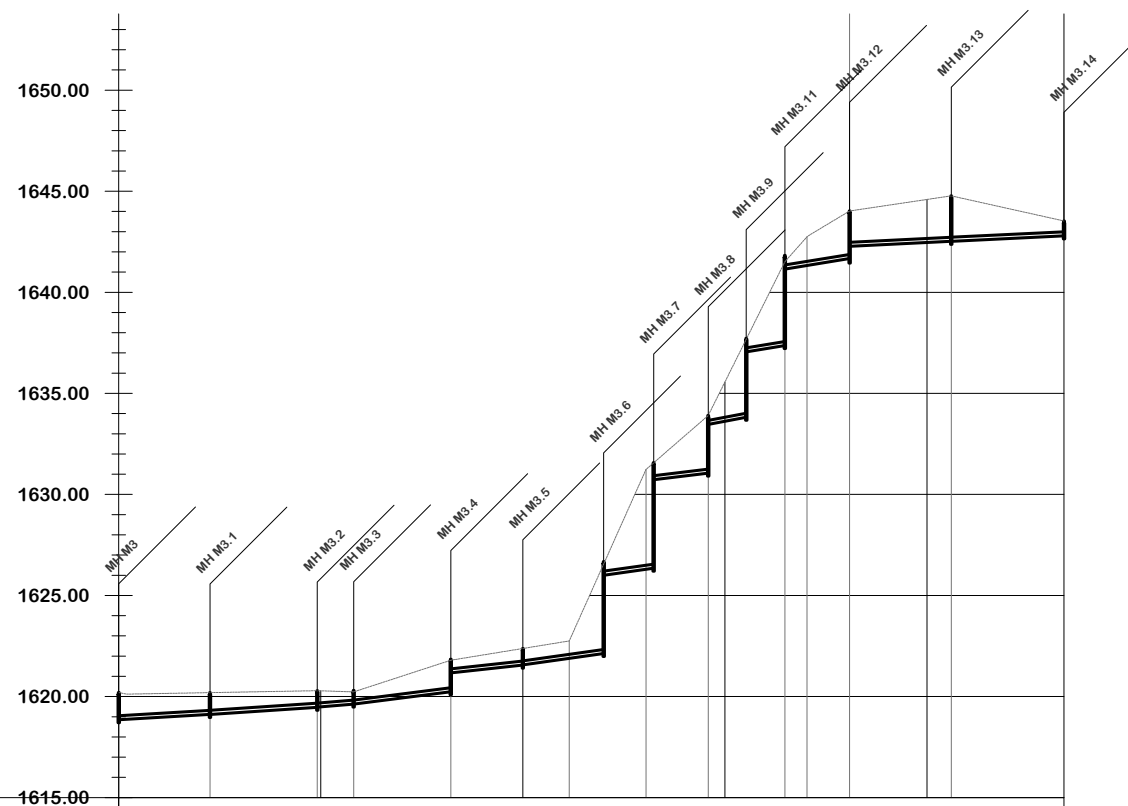
Civil/Structural Engineers



TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
 NYERI

Drawing Title  
 MAUA LAST MILE SEWERAGE PROJECT  
 LIVESTOCK MARKET  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:



TYPE & SIZE OF PIPE	OD 200MM DWC HDPE		HARD ROCK GROUND																							
EXISTING GROUND LEVEL (m)	1620.20	1620.15	1620.18	1620.22	1620.26	1620.28	1620.35	1621.00	1621.66	1622.05	1622.38	1622.70	1626.56	1631.02	1632.89	1635.56	1639.57	1642.68	1643.92	1644.30	1644.59	1644.59	1644.15	1643.70		
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+467.83	
TRENCH BOTTOM LEVELS (m)		1618.97	1619.09	1619.22	1619.35	1619.48	1619.67	1619.93	1620.18	1621.34	1621.56	1621.84	1624.07	1626.28	1630.91	1633.62	1637.21	1641.32	1641.64	1642.36	1642.46	1642.56	1642.65	1642.75		
DEPTH OF PIPE INVERT (m)		1.179	1.098	1.005	0.909	0.80	0.677	1.076	1.475	0.713	0.82	0.859	2.490	4.742	1.976	1.94	2.366	1.358	2.280	1.933	2.13	2.037	1.495	0.953		
SLOPE OF PIPE		1:171	1:151	1:121	1:79	1:92	1:71	1:71	1:89	1:53	1:67	1:62	1:202	1:210												
MANHOLE No. & POSITION			3826600.4786 10025535.0414		382646.8798 10025505.2322	382664.7060 10025506.7400		382688.2710 10025541.1400		382729.8590 10025590.5300	382750.4384 10025622.4580	382766.9720 10025648.4600	382772.1790 10025686.6389	382779.5580 10025717.2050	382736.3533 10025742.9693											

NOTES

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- ALL LEVELS ARE IN METERS AND COORDINATES ARE BASED ON UTM.
- THE MANHOLE INVERT LEVELS AND PIPE SLOPES ARE AS SHOWN ON DRAWINGS UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
- MANHOLE TO BE 25MM ABOVE THE GROUND ADJACENT TO ROAD, 150MM ON VERGES, AND 500MM ON OPEN GROUND. THE DEPTHS INDICATED ON THE DRAWING EXCLUDE THESE PROVISIONS.
- SEWERS ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE TYPE 'D' HAUNCH.
- FOR BEDDING, HAUNCH AND MANHOLE DETAILS REFER TO THE APPROVED STANDARD DRAWINGS.
- ALL ROAD AND RIVER CROSSINGS TYPE 'D' HAUNCH TO BE ADOPTED.
- ACTUAL POSITION OF MANHOLES IS AS SHOWN OR AS DIRECTED BY THE ENGINEER ON SITE.

LEGEND:

- PROPOSED SEWER LINE ALIGNMENT
- EXISTING GROUND PROFILE
- EXISTING PIPE ROAD CROSSING
- PIPE INVERT PROFILE
- DN - NOMINAL DIAMETER
- PN - NOMINAL PRESSURE
- TR - TARMAC ROAD
- ER - EARTH ROAD
- GR - GRAVEL ROAD
- CUT

FOR CONSTRUCTION  
signed \_\_\_\_\_

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TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers



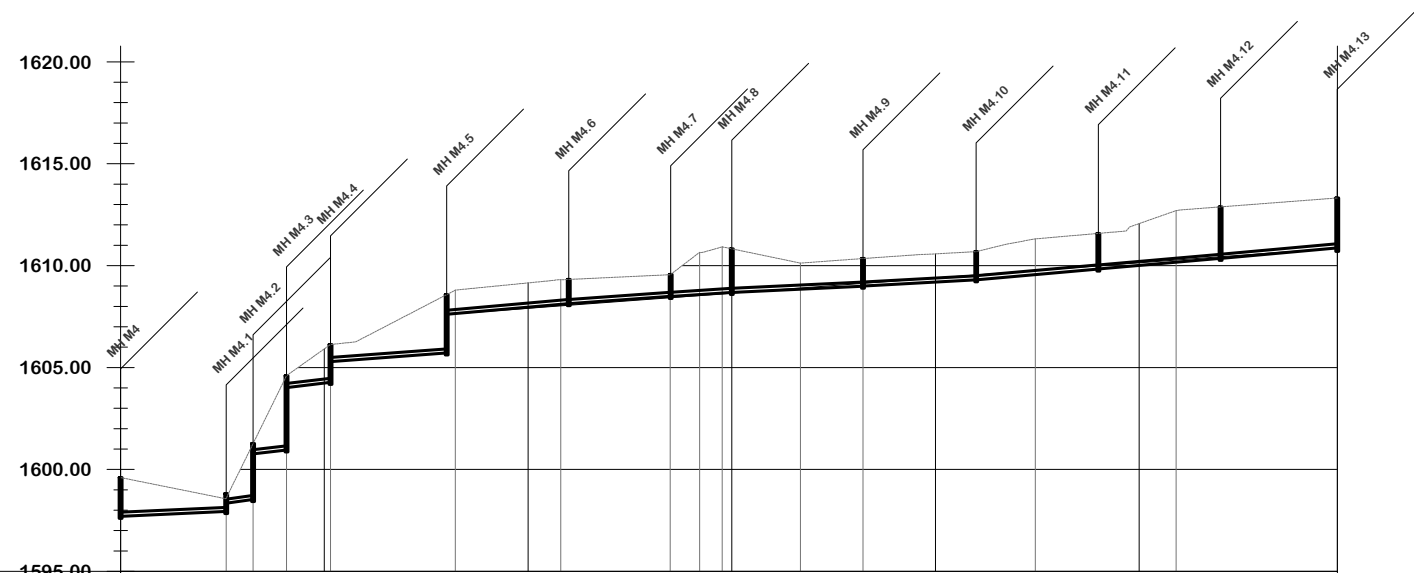
TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

Drawing Title  
MAUA LAST MILE SEWERAGE PROJECT  
MAUA TVET LINE  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/MTL-PD REV



- NOTES**
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TYPE & SIZE OF PIPE	OD 200MM DWC HDPE PIPE	
EXISTING GROUND LEVEL (m)	1599.60	1613.32
CHAINAGE	0+000	0+597.29
TRENCH BOTTOM LEVELS (m)	1597.79	1610.86
DEPTH OF PIPE INVERT (m)	1.407	2.46
SLOPE OF PIPE	1:219	1:111
MANHOLE No. & POSITION	MH M4	MH M4.13

- LEGEND:**
- PROPOSED SEWER LINE ALIGNMENT
  - - - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
 TR — TARMAC ROAD  
 ER — EARTH ROAD  
 GR — GRAVEL ROAD  
 — CUT

**FOR CONSTRUCTION**

signed \_\_\_\_\_

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TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100 NYERI

PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

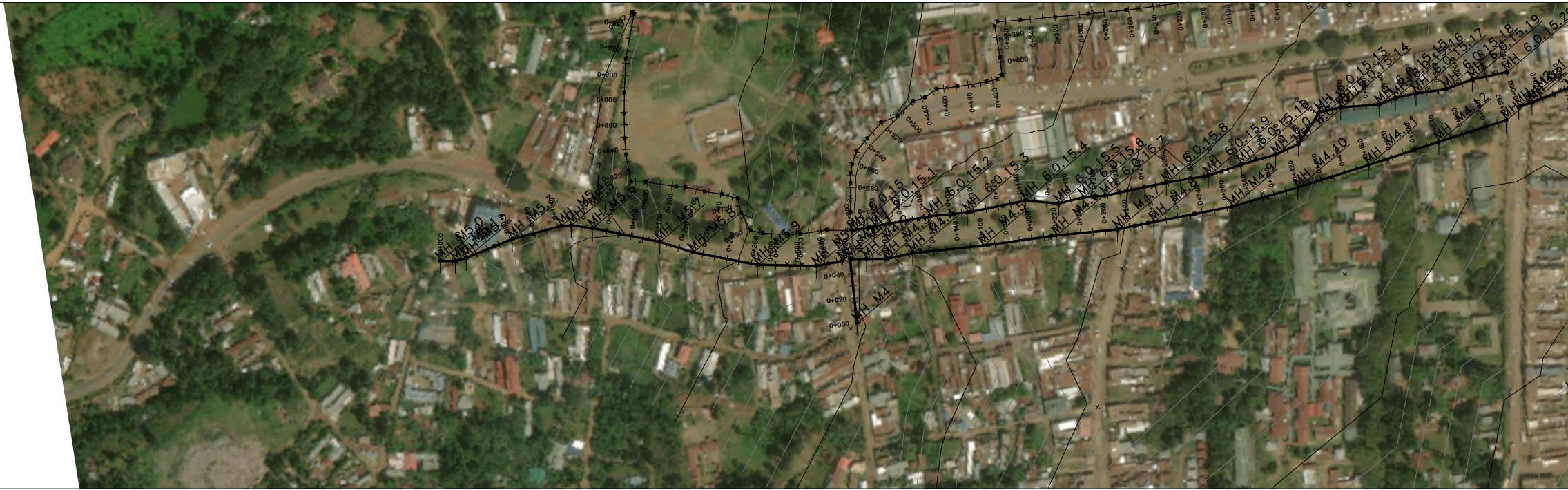
Civil/Structural Engineers

TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100 NYERI

Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
 METHODIST LINE 1  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWDA/MALMSP/ML1 PD

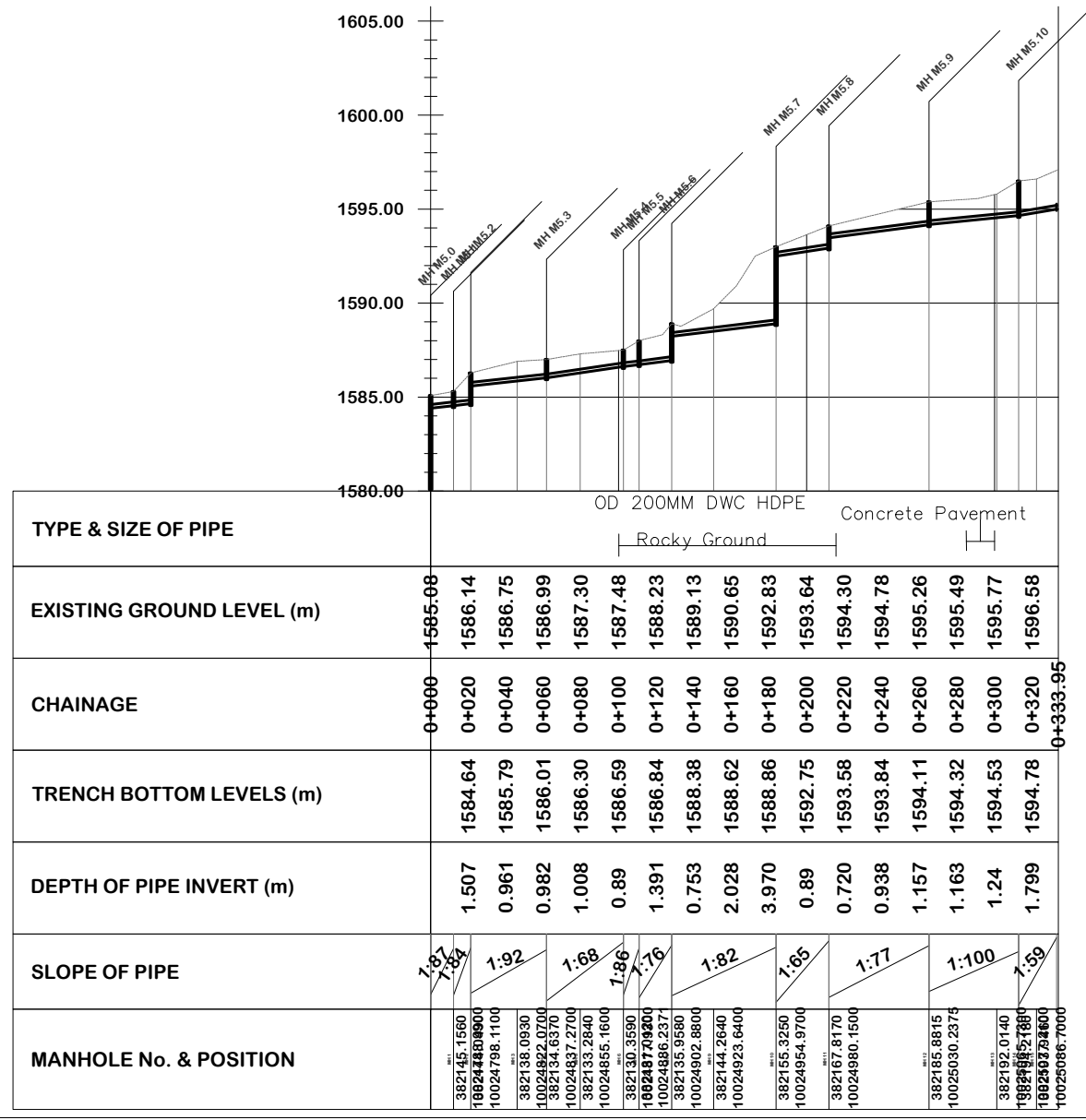


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  8. ACTUAL POSITION OF MANHOLES IS AS SHOWN OR AS DIRECTED BY THE ENGINEER ON SITE.

- LEGEND:**
- PROPOSED SEWER LINE ALIGNMENT
  - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
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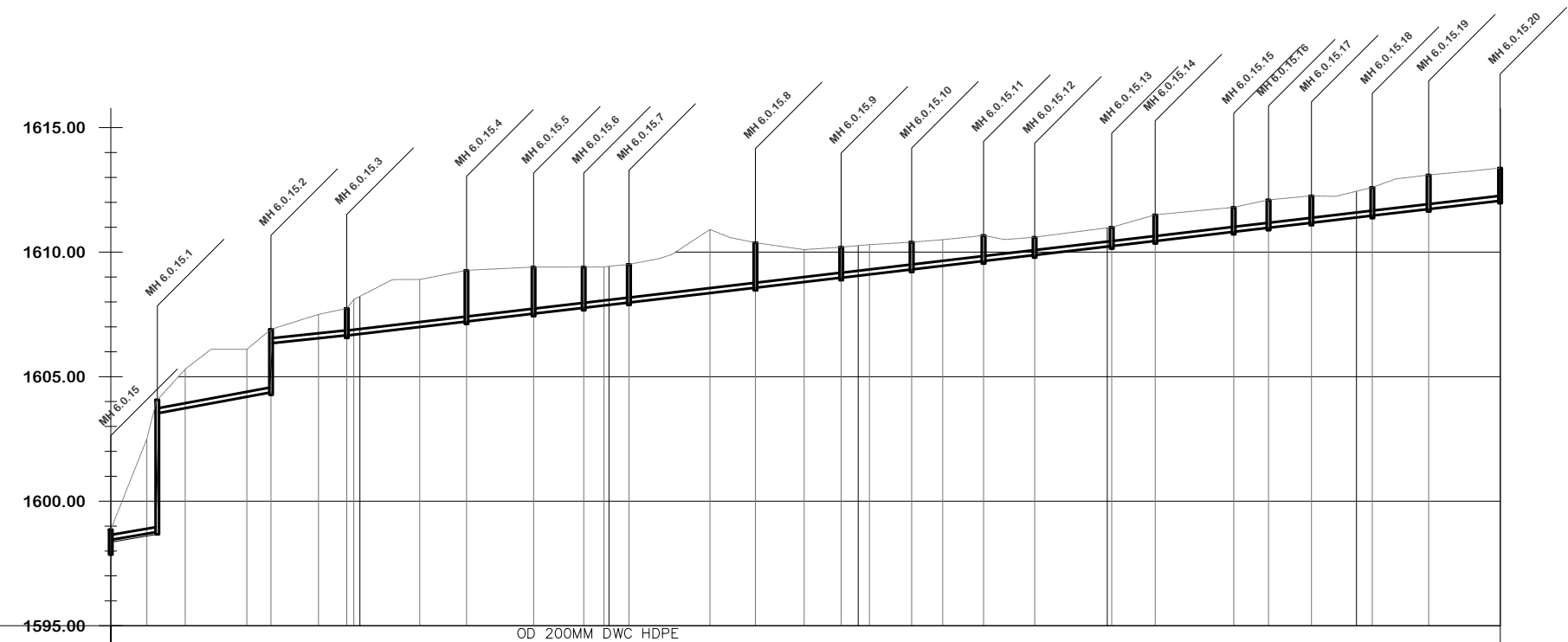
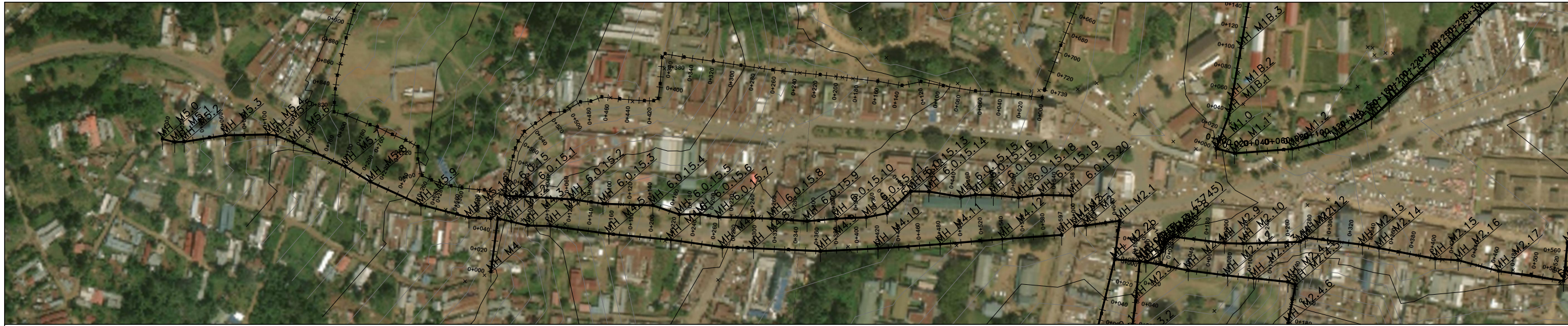
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 TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100 NYERI

PROJECT  
 MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers  
 TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100 NYERI

Drawing Title  
 MAUA LAST MILE SEWERAGE PROJECT  
 METHODIST LINE 2  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/ML2
PD REV	



TYPE & SIZE OF PIPE	Tarmac Crossing		Concrete Pavement		OD 200MM DWC HDPE																										
EXISTING GROUND LEVEL (m)	1598.86	1604.21	1606.08	1606.54	1607.39	1608.22	1608.90	1609.21	1609.35	1609.40	1609.43	1609.74	1610.88	1610.36	1610.11	1610.26	1610.39	1610.56	1610.51	1610.72	1610.98	1611.51	1611.70	1612.00	1612.24	1612.44	1612.99	1613.20	1613.38		
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+557.73		
TRENCH BOTTOM LEVELS (m)		1603.56	1603.93	1604.29	1606.50	1606.72	1606.95	1607.18	1607.42	1607.65	1607.88	1608.12	1608.35	1608.59	1608.82	1609.05	1609.29	1609.52	1609.75	1609.99	1610.22	1610.46	1610.69	1610.92	1611.16	1611.39	1611.63	1611.86			
DEPTH OF PIPE INVERT (m)		0.649	2.152	2.250	0.891	1.51	1.950	2.032	1.936	1.750	1.55	1.622	2.523	1.776	1.292	1.21	1.104	1.042	0.760	0.730	0.76	1.051	1.008	1.075	1.085	1.05	1.367	1.344			
SLOPE OF PIPE	1:59	1:54		1:94	1:86		1:86	1:85	1:86	1:86		1:85	1:85	1:85	1:85	1:85	1:86	1:86	1:86	1:85	1:86	1:86	1:85	1:86	1:86	1:86	1:86	1:86			
MANHOLE No. & POSITION		MH 6.0.15.1 382169.7630 10025124.6200	MH 6.0.15.2 382169.6310 10025139.9900	MH 6.0.15.3 382169.7660 10025174.3700	MH 6.0.15.4 382169.8370 10025193.3800	MH 6.0.15.5 382170.3410 10025207.5700	MH 6.0.15.6 382169.0810 10025252.7100	MH 6.0.15.7 382174.6840 10025278.8000	MH 6.0.15.8 382172.0000 10025316.9300	MH 6.0.15.9 382172.1490 10025349.4200	MH 6.0.15.10 382171.4161 10025367.6141	MH 6.0.15.11 382171.2020 10025387.1600	MH 6.0.15.12 382171.0390 10025402.0400	MH 6.0.15.13 382169.6920 10025413.2700	MH 6.0.15.14 382166.3340 10025429.9200	MH 6.0.15.15 382163.7100 10025442.0900	MH 6.0.15.16 382162.6950 10025458.4700	MH 6.0.15.17 382157.0850 10025478.1900	MH 6.0.15.18 382134.2010 10025498.9900	MH 6.0.15.19 382133.0450 10025516.4300	MH 6.0.15.20 382135.6070 10025547.8300										

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- LEGEND:
- PROPOSED SEWER LINE ALIGNMENT
  - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
 TR — TARMAC ROAD  
 ER — EARTH ROAD  
 GR — GRAVEL ROAD  
 — CUT

FOR CONSTRUCTION  
 signed

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TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
 NYERI

PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers

TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100  
 NYERI

Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
 EQUITY BANK LINE  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/EBL PD REV



**NOTES**

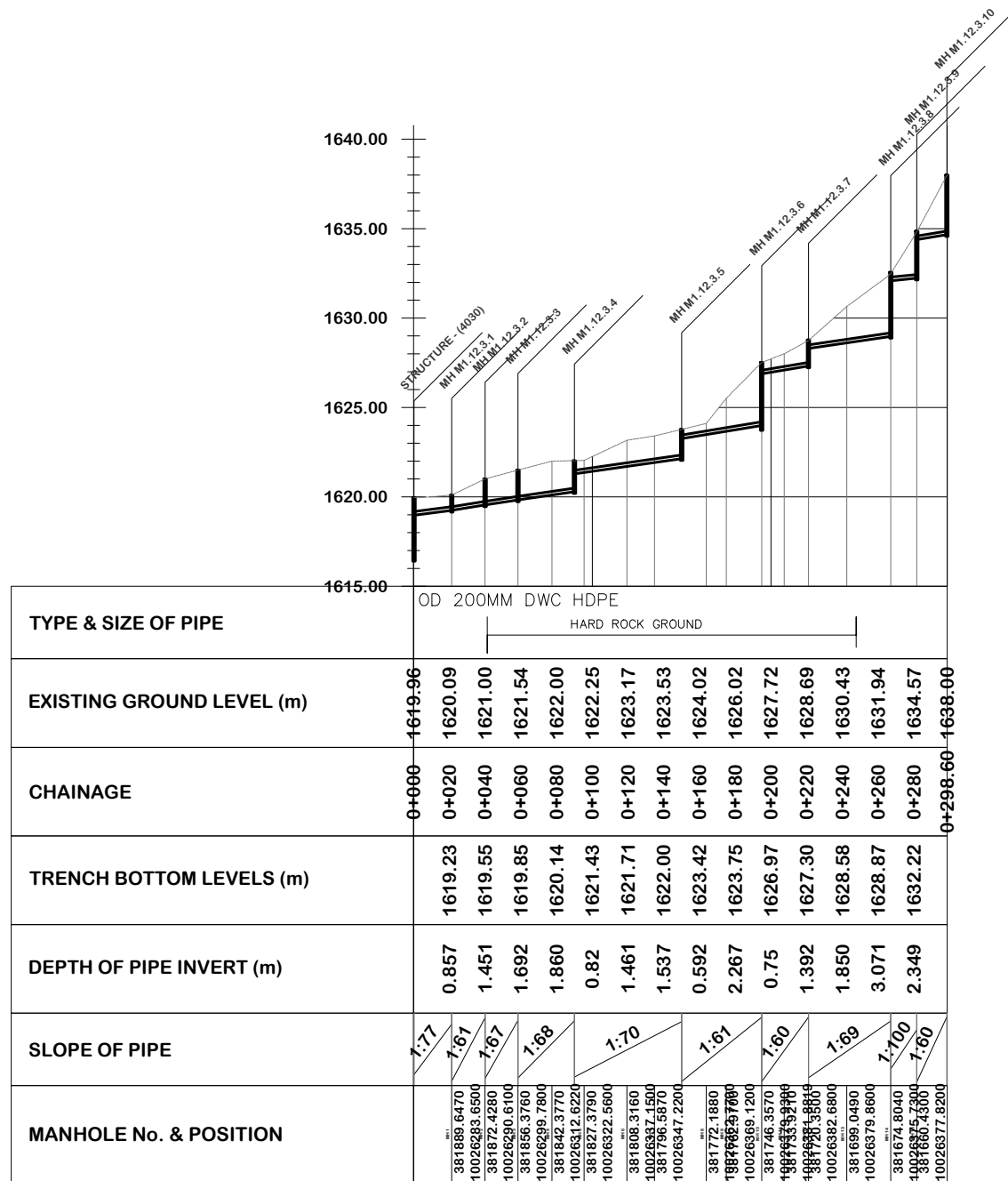
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**LEGEND:**


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- EXISTING GROUND PROFILE
- EXISTING PIPE ROAD CROSSING
- PIPE INVERT PROFILE
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TANA WATER WORKS DEVELOPMENT AGENCY  
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PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers



TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
MILIMANI FLATS LINE  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/MFL PD REV



**NOTES**

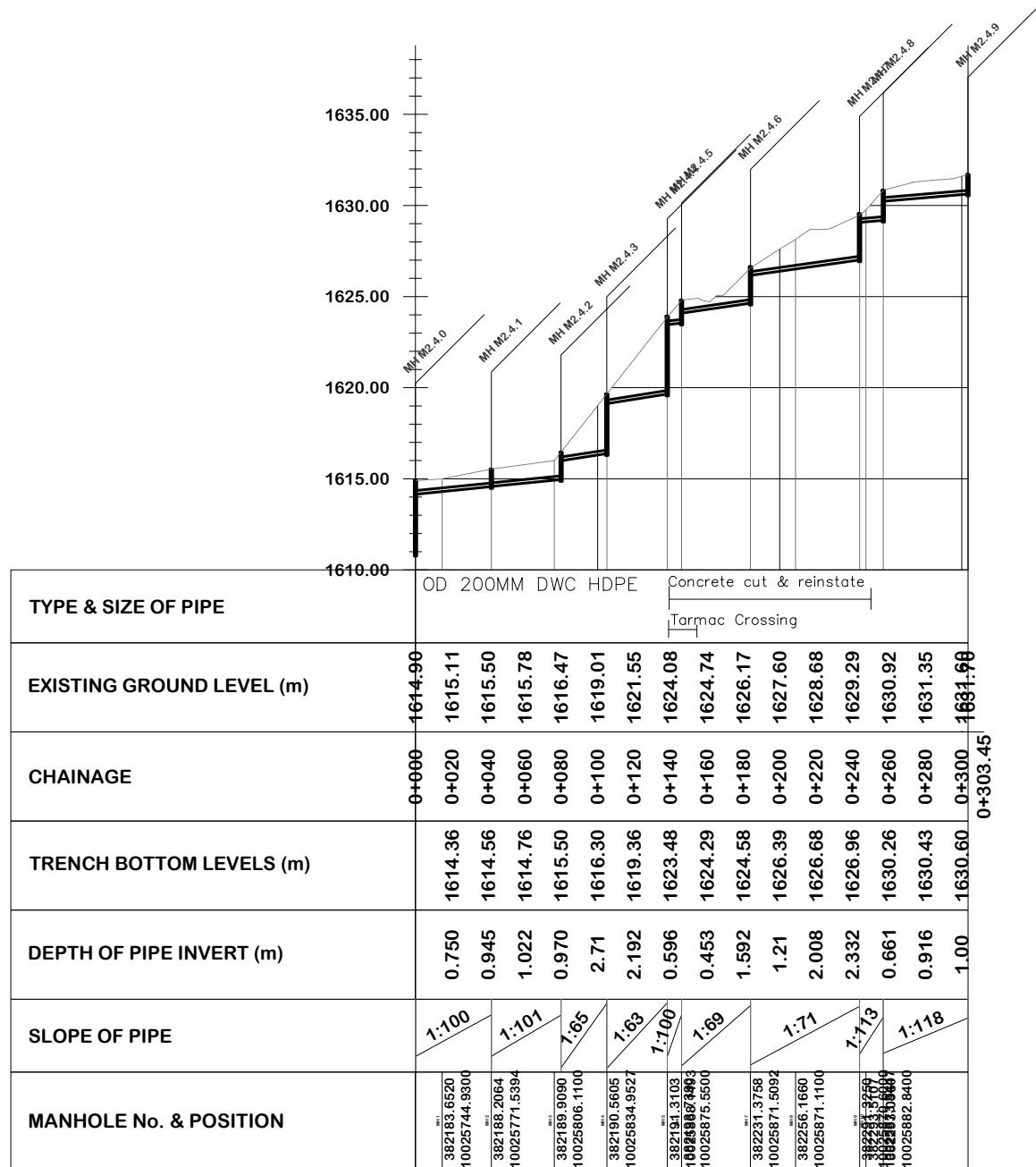
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**LEGEND:**

- PROPOSED SEWER LINE ALIGNMENT
- EXISTING GROUND PROFILE
- EXISTING PIPE ROAD CROSSING
- PIPE INVERT PROFILE
  
- DN — NOMINAL DIAMETER
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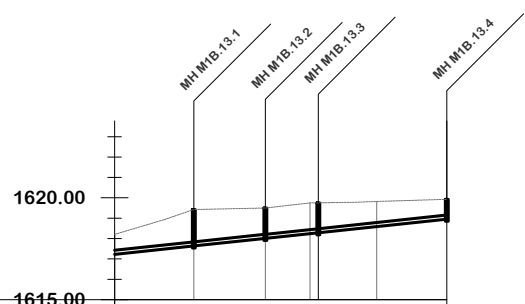
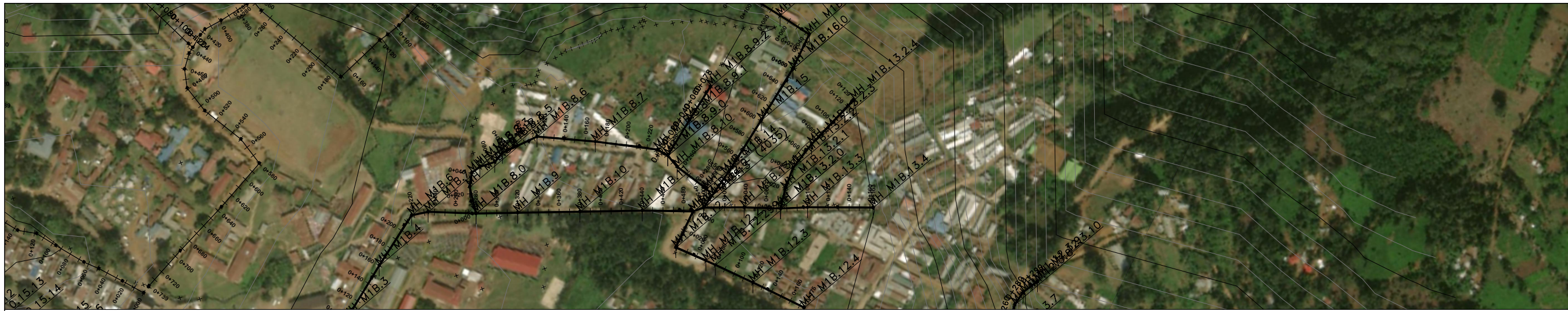
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**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

PROJECT  
**MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT**

Civil/Structural Engineers  

**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

Drawing Title  
**MAUA LAST MILE SEWERAGE PROJECT**  
 BEI SAWA LINE  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:



TYPE & SIZE OF PIPE	OD 200MM DWC HDPE										
EXISTING GROUND LEVEL (m)	1618.20	1618.80	1619.43	1619.47	1619.57	1619.76	1619.79	1619.85	1619.92	1619.92	1619.92
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+163.08	
TRENCH BOTTOM LEVELS (m)	1617.23	1617.44	1617.65	1617.86	1618.07	1618.28	1618.50	1618.71	1618.92	1618.92	1618.92
DEPTH OF PIPE INVERT (m)	0.98	1.361	1.778	1.609	1.496	1.47	1.292	1.148	0.998	0.998	0.998
SLOPE OF PIPE		1:94	1:94	1:94	1:95	1:95	1:95	1:95	1:95	1:95	1:95
MANHOLE No. & POSITION			381705.8320 10026100.6900	381691.3330 10026132.6800	381680.6610 10026151.8500	381666.2200 10026161.2500					

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8. ACTUAL POSITION OF MANHOLES IS AS SHOWN OR AS DIRECTED BY THE ENGINEER ON SITE.

**LEGEND:**


- PROPOSED SEWER LINE ALIGNMENT
- EXISTING GROUND PROFILE
- EXISTING PIPE ROAD CROSSING
- PIPE INVERT PROFILE
  
- DN — NOMINAL DIAMETER
- PN — NOMINAL PRESSURE
- TR — TARMAC ROAD
- ER — EARTH ROAD
- GR — GRAVEL ROAD
- CUT

FOR CONSTRUCTION

signed

REV	REVISIONS	SIGN	DATE	APPROVED
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	ISSUED FOR CONSTRUCTION BY			
	CHECKED			

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TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers



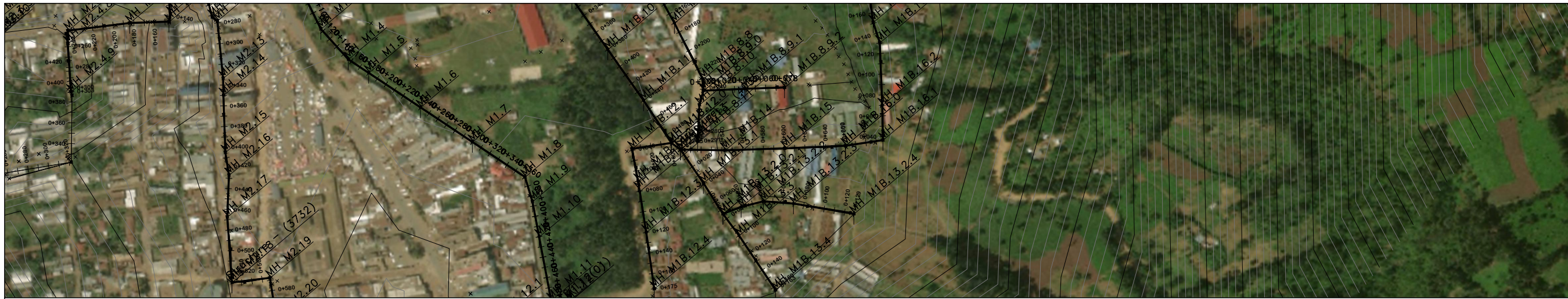
TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
LM 1 LINE  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/LM1 PD REV





**NOTES**

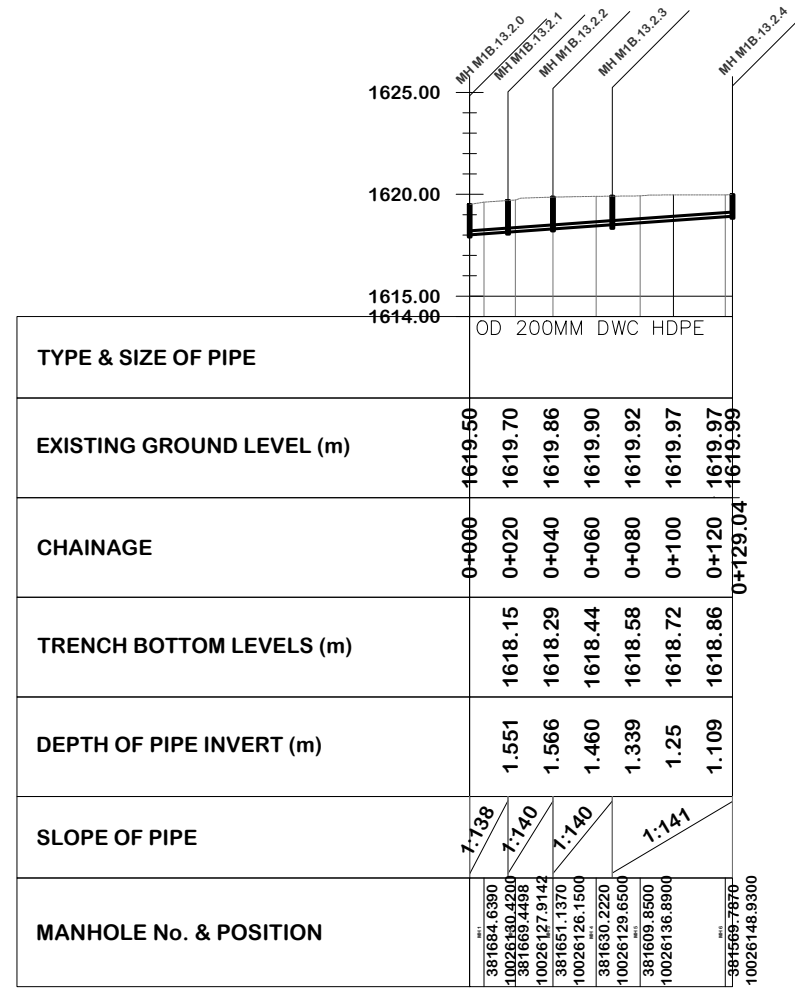
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL LEVELS ARE IN METERS AND COORDINATES ARE BASED ON UTM.
3. THE MANHOLE INVERT LEVELS AND PIPE SLOPES ARE AS SHOWN ON DRAWINGS UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
4. MANHOLE TO BE 25MM ABOVE THE GROUND ADJACENT TO ROAD, 150MM ON VERGES, AND 500MM ON OPEN GROUND. THE DEPTHS INDICATED ON THE DRAWING EXCLUDE THESE PROVISIONS.
5. SEWERS ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE TYPE 'D' HAUNCH.
6. FOR BEDDING, HAUNCH AND MANHOLE DETAILS REFER TO THE APPROVED STANDARD DRAWINGS.
7. ALL ROAD AND RIVER CROSSINGS TYPE 'D' HAUNCH TO BE ADOPTED.
8. ACTUAL POSITION OF MANHOLES IS AS SHOWN OR AS DIRECTED BY THE ENGINEER ON SITE.


**LEGEND:**

- PROPOSED SEWER LINE ALIGNMENT
- EXISTING GROUND PROFILE
- EXISTING PIPE ROAD CROSSING
- PIPE INVERT PROFILE
  
- DN — NOMINAL DIAMETER
- PN — NOMINAL PRESSURE
- TR — TARMAC ROAD
- ER — EARTH ROAD
- GR — GRAVEL ROAD
- CUT


FOR CONSTRUCTION  
signed

REV	REVISIONS	SIGN	DATE	APPROVED
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	ISSUED FOR CONSTRUCTION BY			
	CHECKED			



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**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

PROJECT  
**MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT**

Civil/Structural Engineers  

**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

Drawing Title  
**MAUA LAST MILE SEWERAGE PROJECT**  
 LM 2 LINE  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
C STATUS	DRAWING No. TWWDA/MALMSP/LM2
PD REV	



**NOTES**

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL LEVELS ARE IN METERS AND COORDINATES ARE BASED ON UTM.
3. THE MANHOLE INVERT LEVELS AND PIPE SLOPES ARE AS SHOWN ON DRAWINGS UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
4. MANHOLE TO BE 25MM ABOVE THE GROUND ADJACENT TO ROAD, 150MM ON VERGES, AND 500MM ON OPEN GROUND. THE DEPTHS INDICATED ON THE DRAWING EXCLUDE THESE PROVISIONS.
5. SEWERS ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE TYPE 'D' HAUNCH.
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7. ALL ROAD AND RIVER CROSSINGS TYPE 'D' HAUNCH TO BE ADOPTED.
8. ACTUAL POSITION OF MANHOLES IS AS SHOWN OR AS DIRECTED BY THE ENGINEER ON SITE.

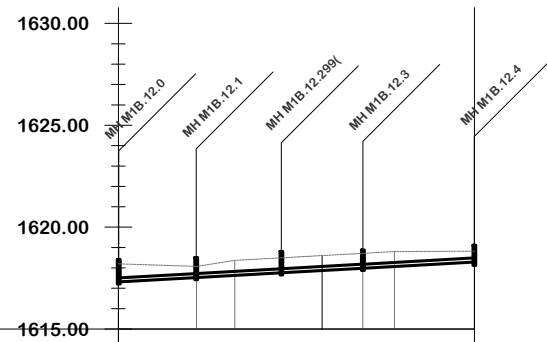
**LEGEND:**

- PROPOSED SEWER LINE ALIGNMENT
- EXISTING GROUND PROFILE
- EXISTING PIPE ROAD CROSSING
- PIPE INVERT PROFILE
- DN - NOMINAL DIAMETER
- PN - NOMINAL PRESSURE
- TR - TARMAC ROAD
- ER - EARTH ROAD
- GR - GRAVEL ROAD
- CUT

FOR CONSTRUCTION  
signed \_\_\_\_\_

REV	REVISIONS	SIGN	DATE	APPROVED
	BY			
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	CHECKED			
	ISSUED FOR CONSTRUCTION BY			
	CHECKED			

TYPE & SIZE OF PIPE	OD 200MM DWC HDPE									
EXISTING GROUND LEVEL (m)	1618.20	1618.13	1618.10	1618.38	1618.49	1618.60	1618.71	1618.80	1618.81	1618.82
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+174.76
TRENCH BOTTOM LEVELS (m)	1617.42	1617.53	1617.65	1617.76	1617.87	1617.98	1618.10	1618.21		
DEPTH OF PIPE INVERT (m)	0.714	0.566	0.739	0.737	0.73	0.732	0.707	0.606		
SLOPE OF PIPE	1:179		1:178		1:178		1:175			
MANHOLE No. & POSITION		381766.4170 10026058.5700	381766.0340 10026077.2600		381766.9127 10026140.1193	381766.6360 10026155.6300				



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 TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100 NYERI

PROJECT  
 MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers  
 TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100 NYERI

Drawing Title  
 MAUA LAST MILE SEWERAGE PROJECT  
 LM 3 LINE  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:

C STATUS DRAWING No. TWWDA/MALMSP/LM3 PD REV

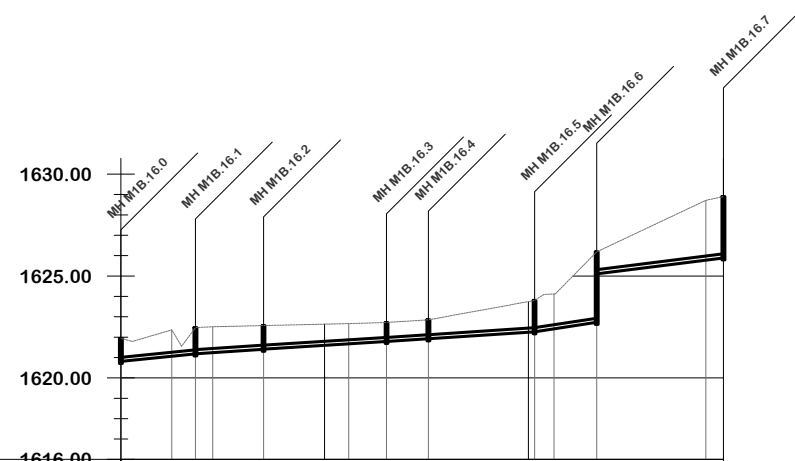






- NOTES**
- ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
  - ALL LEVELS ARE IN METERS AND COORDINATES ARE BASED ON UTM.
  - THE MANHOLE INVERT LEVELS AND PIPE SLOPES ARE AS SHOWN ON DRAWINGS UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
  - MANHOLE TO BE 25MM ABOVE THE GROUND ADJACENT TO ROAD, 150MM ON VERGES, AND 500MM ON OPEN GROUND. THE DEPTHS INDICATED ON THE DRAWING EXCLUDE THESE PROVISIONS.
  - SEWERS ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE TYPE 'D' HAUNCH.
  - FOR BEDDING, HAUNCH AND MANHOLE DETAILS REFER TO THE APPROVED STANDARD DRAWINGS.
  - ALL ROAD AND RIVER CROSSINGS TYPE 'D' HAUNCH TO BE ADOPTED.
  - ACTUAL POSITION OF MANHOLES IS AS SHOWN OR AS DIRECTED BY THE ENGINEER ON SITE.

- LEGEND:**
- PROPOSED SEWER LINE ALIGNMENT
  - EXISTING GROUND PROFILE
  - EXISTING PIPE ROAD CROSSING
  - PIPE INVERT PROFILE
- DN — NOMINAL DIAMETER  
 PN — NOMINAL PRESSURE  
 TR — TARMAC ROAD  
 ER — EARTH ROAD  
 GR — GRAVEL ROAD  
 [Symbol] — CUT




TYPE & SIZE OF PIPE	OD 200MM DWC HDPE PIPE															
EXISTING GROUND LEVEL (m)	1621.94	1622.21	1622.49	1622.54	1622.59	1622.64	1622.69	1622.78	1623.02	1623.38	1623.74	1624.81	1626.49	1627.43	1628.38	
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+295.80
TRENCH BOTTOM LEVELS (m)	1621.01	1621.20	1621.33	1621.46	1621.59	1621.72	1621.85	1621.98	1622.11	1622.24	1622.52	1625.21	1625.45	1625.70		
DEPTH OF PIPE INVERT (m)	1.200	1.289	1.218	1.134	1.05	0.971	0.932	1.036	1.270	1.50	2.286	1.279	1.981	2.682		
SLOPE OF PIPE	1:100	1:151		1:159		1:153		1:151		1:65		1:80				
MANHOLE No. & POSITION	381540.4790 10025657.0800	381542.4990 10025657.2800	381544.5190 10025657.4800	381524.9814 10025650.5995		381520.3190 10025609.0200	381518.9220 10025990.5100	381522.5280 10025970.2700		381522.2260 10025657.0800	381525.5350 10025688.0000					381542.2100 10025657.0800

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 TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100 NYERI

PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers

 TANA WATER WORKS DEVELOPMENT AGENCY  
 P. O. BOX 1292-10100 NYERI

Drawing Title

MAUA LAST MILE SEWERAGE PROJECT  
 LM 5 LINE  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:

C STATUS DRAWING No. TWWDA/MALMSP/LM5 PD REV



**NOTES**

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL LEVELS ARE IN METERS AND COORDINATES ARE BASED ON UTM.
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**LEGEND:**

- PROPOSED SEWER LINE ALIGNMENT
- EXISTING GROUND PROFILE
- EXISTING PIPE ROAD CROSSING
- PIPE INVERT PROFILE
  
- DN — NOMINAL DIAMETER
- PN — NOMINAL PRESSURE
- TR — TARMAC ROAD
- ER — EARTH ROAD
- GR — GRAVEL ROAD
- CUT

FOR CONSTRUCTION  
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TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100 NYERI

PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers

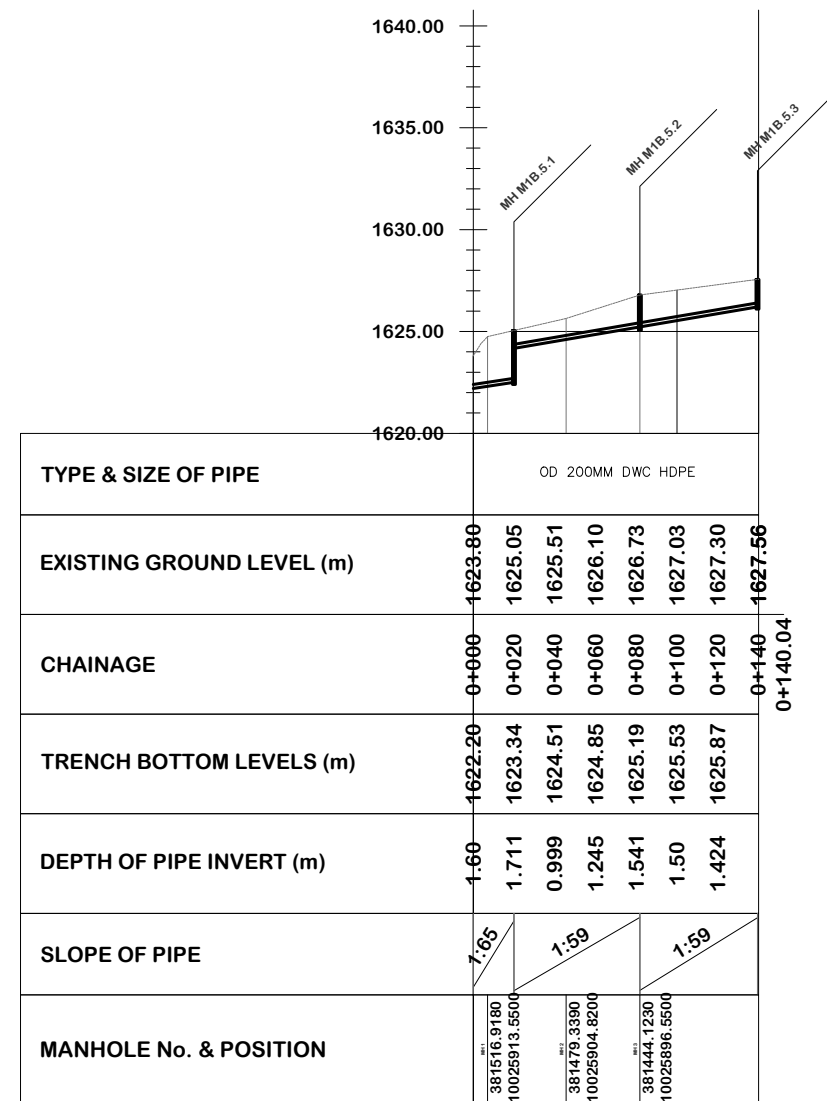


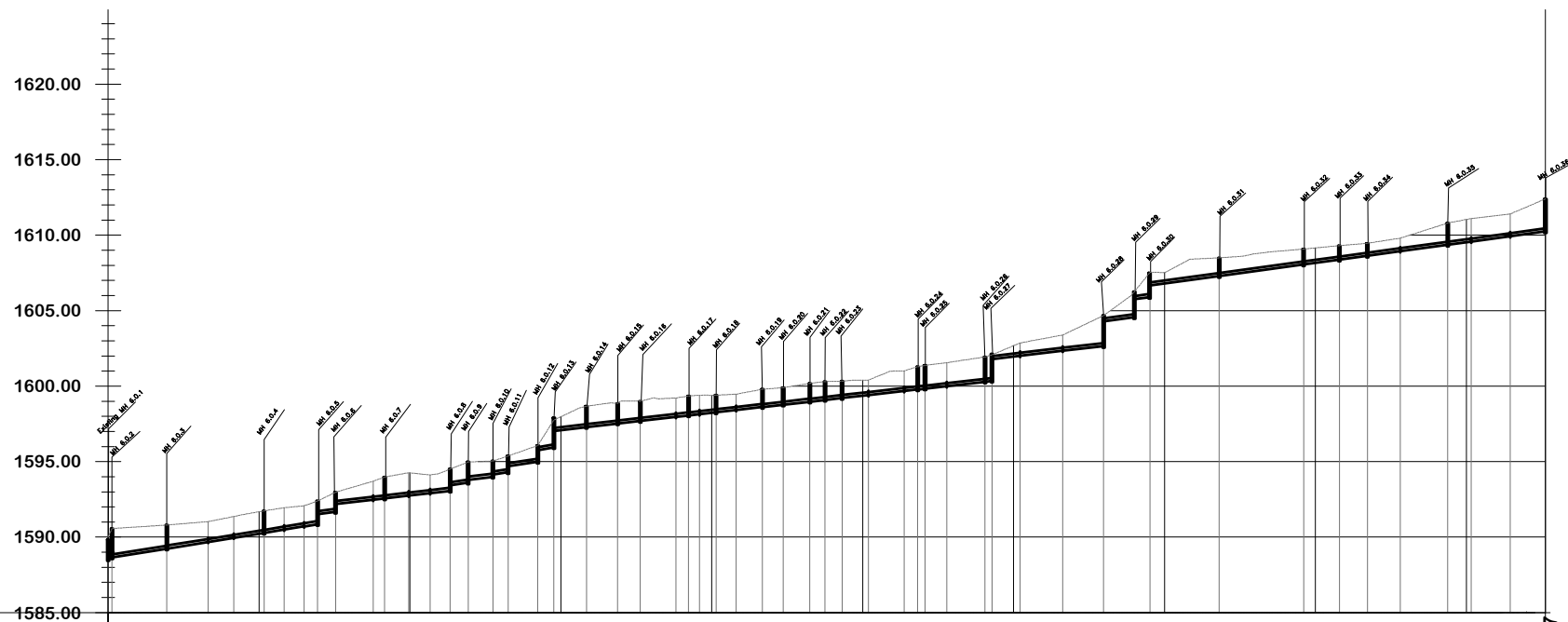
TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100 NYERI

Drawing Title  
MAUA LAST MILE SEWERAGE PROJECT  
LM 5.1 LINE  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by MMM
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:

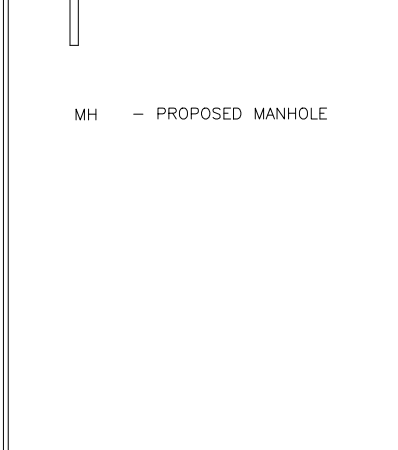
C STATUS DRAWING No. TWWDA/MALMSP/LM5.1 PD REV






CHAINAGE	EXISTING GROUND LEVEL (m)	TRENCH BOTTOM LEVELS (m)	TYPE & SIZE OF PIPE	SLOPE OF PIPE	MANHOLE No. & POSITION	SURVEY REMARKS
0+000	1588.00	1588.00	200MM DIA DWC PIPE	1:62	MH 1 381970.4830	Existing MH
0+020	1590.68	1590.68	200MM DIA DWC PIPE	1:62	MH 2 10024962.7500	
0+040	1590.81	1590.81	200MM DIA DWC PIPE	1:62	MH 3 382004.7940	
0+060	1590.98	1590.98	200MM DIA DWC PIPE	1:62	MH 4 10024950.7100	
0+080	1591.30	1591.30	200MM DIA DWC PIPE	1:62	MH 5 382031.16140	
0+100	1591.68	1591.68	200MM DIA DWC PIPE	1:62	MH 6 10024948.6900	
0+120	1591.98	1591.98	200MM DIA DWC PIPE	1:62	MH 7 10024942.5100	
0+140	1592.45	1592.45	200MM DIA DWC PIPE	1:71	MH 8 382048.2510	
0+160	1593.25	1593.25	200MM DIA DWC PIPE	1:86	MH 9 10024938.9800	
0+180	1593.86	1593.86	200MM DIA DWC PIPE	1:86	MH 10 382041.13360	
0+200	1594.25	1594.25	200MM DIA DWC PIPE	1:86	MH 11 10024927.6800	
0+220	1594.24	1594.24	200MM DIA DWC PIPE	1:86	MH 12 382041.93250	
0+240	1594.98	1594.98	200MM DIA DWC PIPE	1:85	MH 13 10024922.8000	
0+260	1595.21	1595.21	200MM DIA DWC PIPE	1:66	MH 14 382037.7440	
0+280	1595.90	1595.90	200MM DIA DWC PIPE	1:56	MH 15 10024916.5400	
0+300	1597.97	1597.97	200MM DIA DWC PIPE	1:85	MH 16 382040.55660	
0+320	1598.71	1598.71	200MM DIA DWC PIPE	1:88	MH 17 382166.7370	
0+340	1599.02	1599.02	200MM DIA DWC PIPE	1:88	MH 18 382120.6500	
0+360	1599.19	1599.19	200MM DIA DWC PIPE	1:87	MH 19 382127.5150	
0+380	1599.27	1599.27	200MM DIA DWC PIPE	1:88	MH 20 382155.1960	
0+400	1599.39	1599.39	200MM DIA DWC PIPE	1:88	MH 21 10024911.1700	CH 0+230-CH 0+290 Rock
0+420	1599.54	1599.54	200MM DIA DWC PIPE	1:88	MH 22 382124.2580	CH 0+330-CH 0+390 Concrete reinforcement
0+440	1599.84	1599.84	200MM DIA DWC PIPE	1:86	MH 23 10024904.8800	CH 0+400-CH 0+530 Concrete reinforcement
0+460	1600.10	1600.10	200MM DIA DWC PIPE	1:86	MH 24 382124.3810	
0+480	1600.31	1600.31	200MM DIA DWC PIPE	1:86	MH 25 10024896.3810	
0+500	1600.40	1600.40	200MM DIA DWC PIPE	1:87	MH 26 382033.6800	
0+520	1600.99	1600.99	200MM DIA DWC PIPE	1:89	MH 27 10024888.6200	
0+540	1601.35	1601.35	200MM DIA DWC PIPE	1:89	MH 28 382032.5800	
0+560	1601.62	1601.62	200MM DIA DWC PIPE	1:89	MH 29 10024882.5800	
0+580	1601.92	1601.92	200MM DIA DWC PIPE	1:78	MH 30 382031.6840	CH 0+580-CH 0+590 Concrete reinforcement
0+600	1602.68	1602.68	200MM DIA DWC PIPE	1:84	MH 31 382031.8640	
0+620	1603.15	1603.15	200MM DIA DWC PIPE	1:84	MH 32 382023.3890	
0+640	1603.74	1603.74	200MM DIA DWC PIPE	1:87	MH 33 10024871.0600	
0+660	1604.70	1604.70	200MM DIA DWC PIPE	1:87	MH 34 382024.9880	
0+680	1606.26	1606.26	200MM DIA DWC PIPE	1:75	MH 35 10024869.3300	
0+700	1607.52	1607.52	200MM DIA DWC PIPE	1:79	MH 36 382026.7820	
0+720	1608.42	1608.42	200MM DIA DWC PIPE	1:73	MH 37 10024862.2700	
0+740	1608.52	1608.52	200MM DIA DWC PIPE	1:73	MH 38 382028.6160	
0+760	1608.77	1608.77	200MM DIA DWC PIPE	1:73	MH 39 10024857.0500	
0+780	1608.97	1608.97	200MM DIA DWC PIPE	1:73	MH 40 382029.4650	
0+800	1609.15	1609.15	200MM DIA DWC PIPE	1:73	MH 41 10024842.8600	
0+820	1609.34	1609.34	200MM DIA DWC PIPE	1:73	MH 42 382031.2420	
0+840	1609.55	1609.55	200MM DIA DWC PIPE	1:73	MH 43 10024836.8000	
0+860	1609.92	1609.92	200MM DIA DWC PIPE	1:73	MH 44 382033.4410	
0+880	1610.56	1610.56	200MM DIA DWC PIPE	1:73	MH 45 10024827.3500	
0+900	1611.04	1611.04	200MM DIA DWC PIPE	1:73	MH 46 382028.1950	
0+920	1611.30	1611.30	200MM DIA DWC PIPE	1:73	MH 47 10024820.1500	
0+940	1611.87	1611.87	200MM DIA DWC PIPE	1:73	MH 48 382030.3680	
0+952.37	1612.40	1612.40	200MM DIA DWC PIPE	1:73	MH 49 10024812.9100	
					MH 50 382030.8460	
					MH 51 10024805.7100	
					MH 52 382032.8430	
					MH 53 10024804.4800	

- NOTES**
- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
  - COORDINATES ARE BASED ON UTM.
  - LOCATION OF AIR VALVES, WASHOUTS, BENDS AND OTHER FITTINGS AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
  - GROUND AND INVERT LEVEL SHOWN ARE AS SHOWN ON DRAWING UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
  - PIPES ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE.
  - ALL BENDS ARE HORIZONTAL UNLESS OTHERWISE STATED.
  - IN WATER LOGGED AREAS, PIPES TO BE BEDDED WITH SINGLE SIZED OR GRADED AGGREGATES AS PER CLAUSE 430.1 AND 216 OF TECHNICAL SPECIFICATIONS AND/OR ANCHOR BLOCKS AS MAY BE DIRECTED ON SITE BY THE ENGINEER.




**FOR CONSTRUCTION**  
signed CMTS

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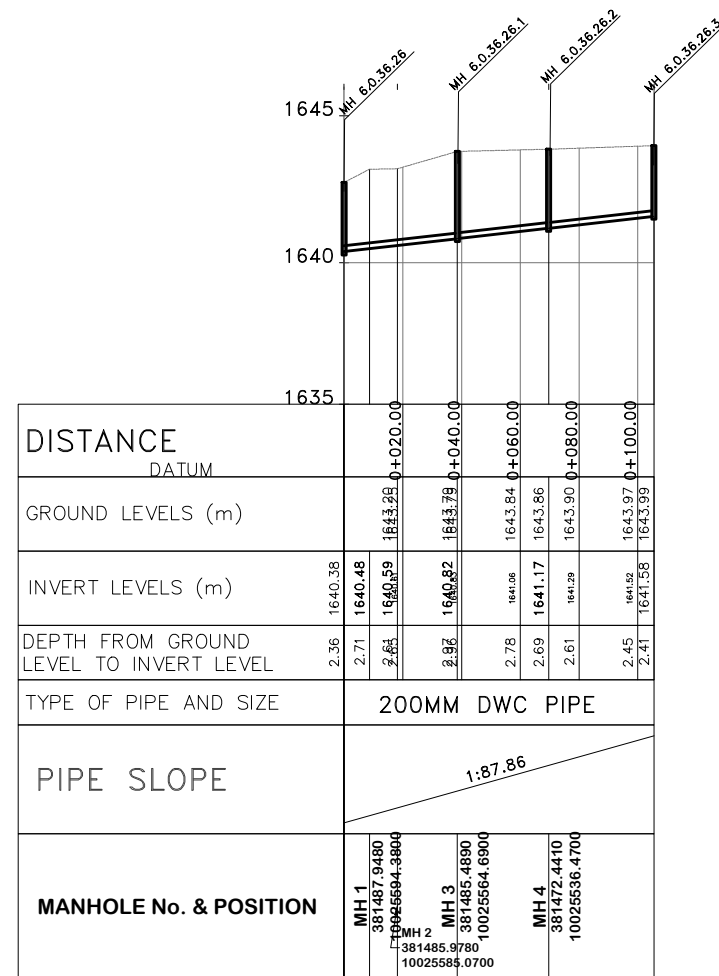
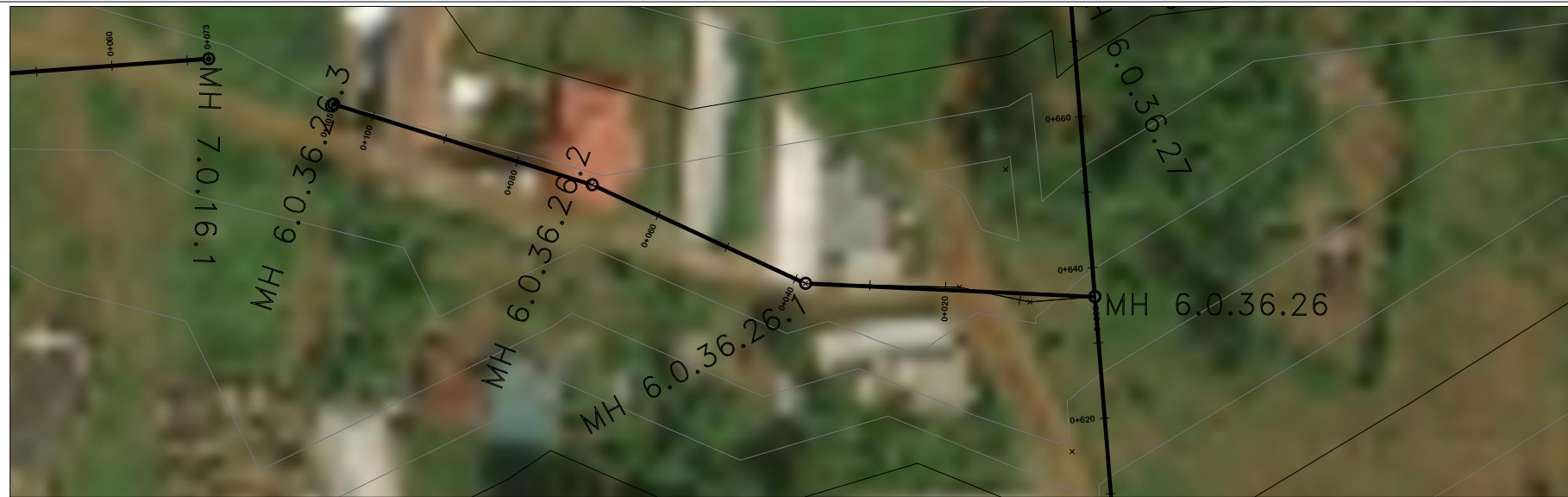
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**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

**PROJECT**  
**MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT**

**Civil/Structural Engineers**  

**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

**Drawing Title**  
**MAUA SEWER LAST MILE PROJECT**  
**ROBINS HOSPITAL LINE**  
**PLAN AND PROFILE (SHEET 1 OF 1)**

Designed by KNG	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
PD STATUS	DRAWING No. TWWDA/MALMSP/RHL
	CO REV



**NOTES**

1. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
2. COORDINATES ARE BASED ON UTM.
3. LOCATION OF AIR VALVES, WASHOUTS, BENDS AND OTHER FITTINGS AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
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**LEGEND:**

- — — — — PROPOSED PIPELINE
- EXISTING GROUND PROFILE
- PIPE INVERT PROFILE
- EXISTING ROAD
- AIR VALVE
- DOUBLE AIR VALVE
- WASHOUT
- WO1 - WASHOUT TYPE 1
- WO2 - WASHOUT TYPE 2
- DN - NOMINAL DIAMETER
- PN - NOMINAL PRESSURE
- VB - VERTICAL BEND
- HB - HORIZONTAL BEND
- EXISTING STRUCTURE
- ER - EARTH ROAD
- GR - GRAVEL ROAD
- CUT

FOR CONSTRUCTION  
signed CMTS

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		CHECKED		

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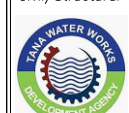


TANA WATER WORKS  
DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

PROJECT

MAUA SEWERAGE LAST MILE  
CONNECTIVITY PROJECT

Civil/Structural Engineers

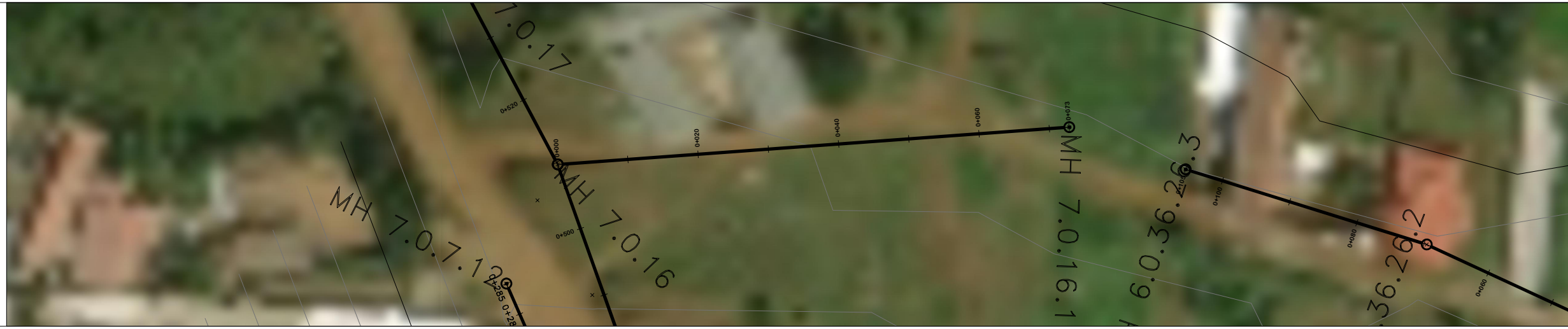


TANA WATER WORKS  
DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

Drawing Title  
MAUA SEWER LAST MILE PROJECT  
LM 7.1  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KING	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:



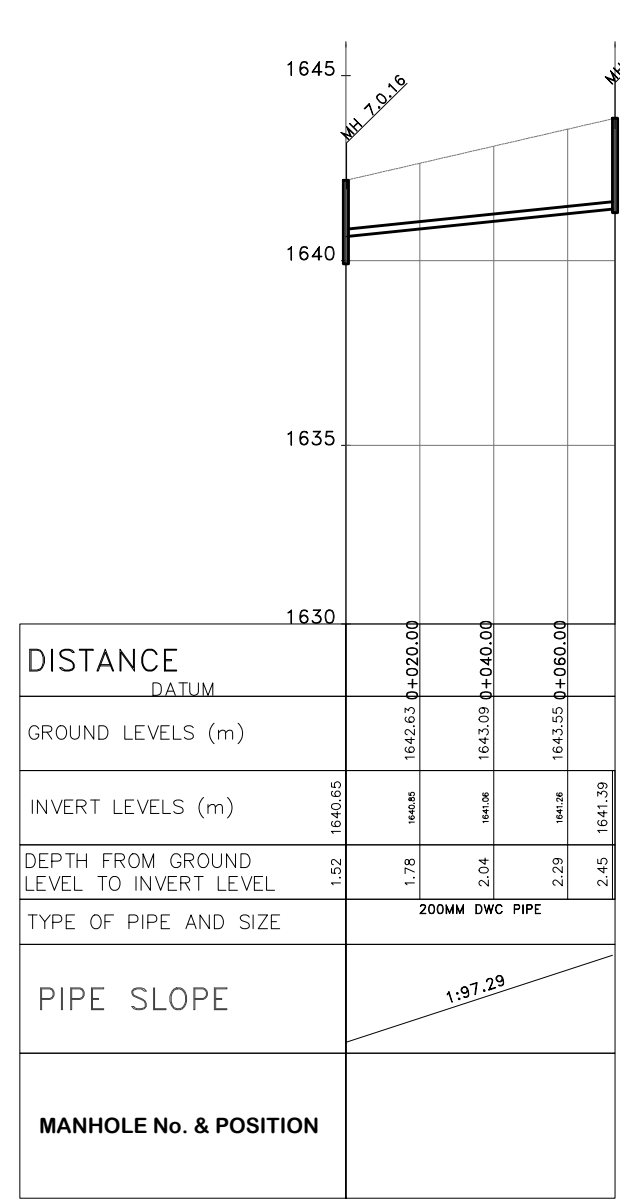


- ### NOTES
1. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
  2. COORDINATES ARE BASED ON UTM.
  3. LOCATION OF AIR VALVES, WASHOUTS, BENDS AND OTHER FITTINGS AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
  4. GROUND AND INVERT LEVEL SHOWN ARE AS SHOWN ON DRAWING UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
  5. PIPES ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE.
  6. ALL BENDS ARE HORIZONTAL UNLESS OTHERWISE STATED.
  7. IN WATER LOGGED AREAS, PIPES TO BE BEDDED WITH SINGLE SIZED OR GRADED AGGREGATES AS PER CLAUSE 430.1 AND 216 OF TECHNICAL SPECIFICATIONS AND/OR ANCHOR BLOCKS AS MAY BE DIRECTED ON SITE BY THE ENGINEER.

- ### LEGEND:
- PROPOSED PIPELINE
  - EXISTING GROUND PROFILE
  - PIPE INVERT PROFILE
  - EXISTING ROAD
  - ◇ AIR VALVE
  - DAV DOUBLE AIR VALVE
  - ▽ WASHOUT
  - WO1 WASHOUT TYPE 1
  - WO2 WASHOUT TYPE 2
  - DN NOMINAL DIAMETER
  - PN NOMINAL PRESSURE
  - VB VERTICAL BEND
  - HB HORIZONTAL BEND
  - ▨ EXISTING STRUCTURE
  - ER EARTH ROAD
  - GR GRAVEL ROAD
  - ⊥ CUT

FOR CONSTRUCTION  
signed CMTS


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**TANA WATER WORKS  
DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
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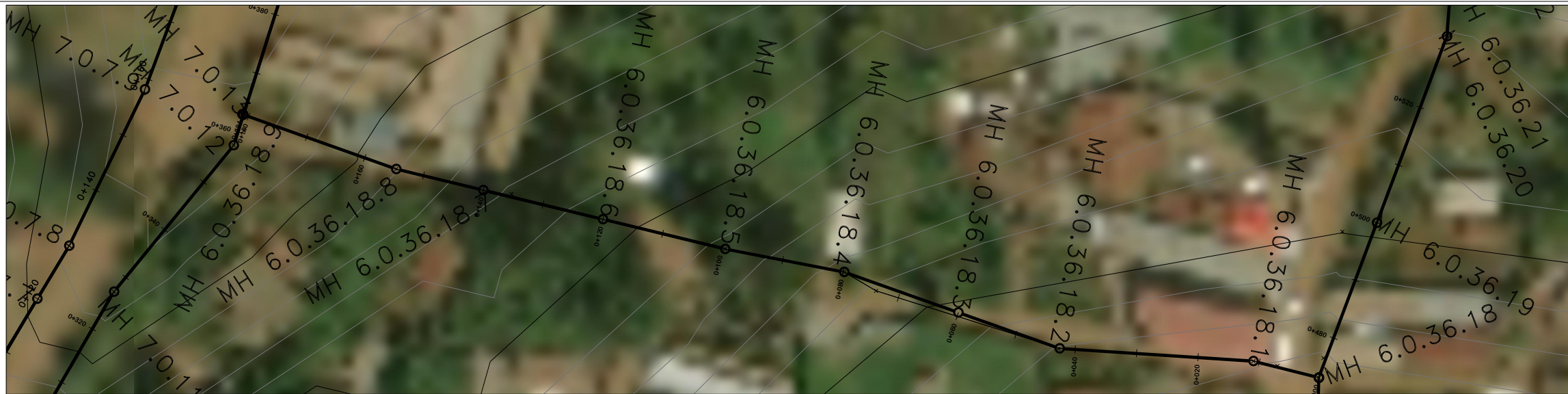
PROJECT  
**MAUA SEWERAGE LAST MILE  
CONNECTIVITY PROJECT**

Civil/Structural Engineers  

**TANA WATER WORKS  
DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
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Drawing Title  
**MAUA SEWER LAST MILE PROJECT  
LM 7.2  
PLAN AND PROFILE (SHEET 1 OF 1)**

Designed by KING	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:

PD STATUS	DRAWING No. TWWDA/MALMSP/LM7	GO REV
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**NOTES**

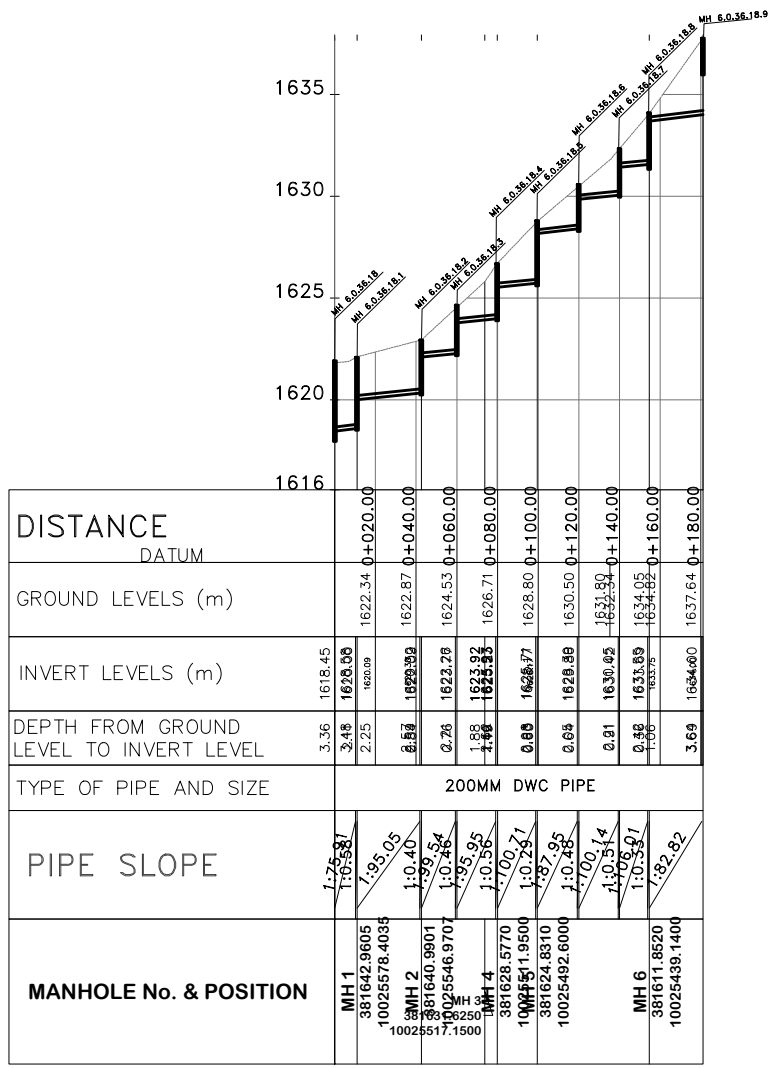
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**LEGEND:**


- PROPOSED PIPELINE
- EXISTING GROUND PROFILE
- PIPE INVERT PROFILE
- EXISTING ROAD
- AIR VALVE
- DOUBLE AIR VALVE
- WASHOUT
- WO1 - WASHOUT TYPE 1
- WO2 - WASHOUT TYPE 2
- DN - NOMINAL DIAMETER
- PN - NOMINAL PRESSURE
- VB - VERTICAL BEND
- HB - HORIZONTAL BEND
- EXISTING STRUCTURE
- ER - EARTH ROAD
- GR - GRAVEL ROAD
- CUT

FOR CONSTRUCTION  
signed CMTS

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TANA WATER WORKS  
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P. O. BOX 1292-10100  
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PROJECT

MAUA SEWERAGE LAST MILE  
CONNECTIVITY PROJECT

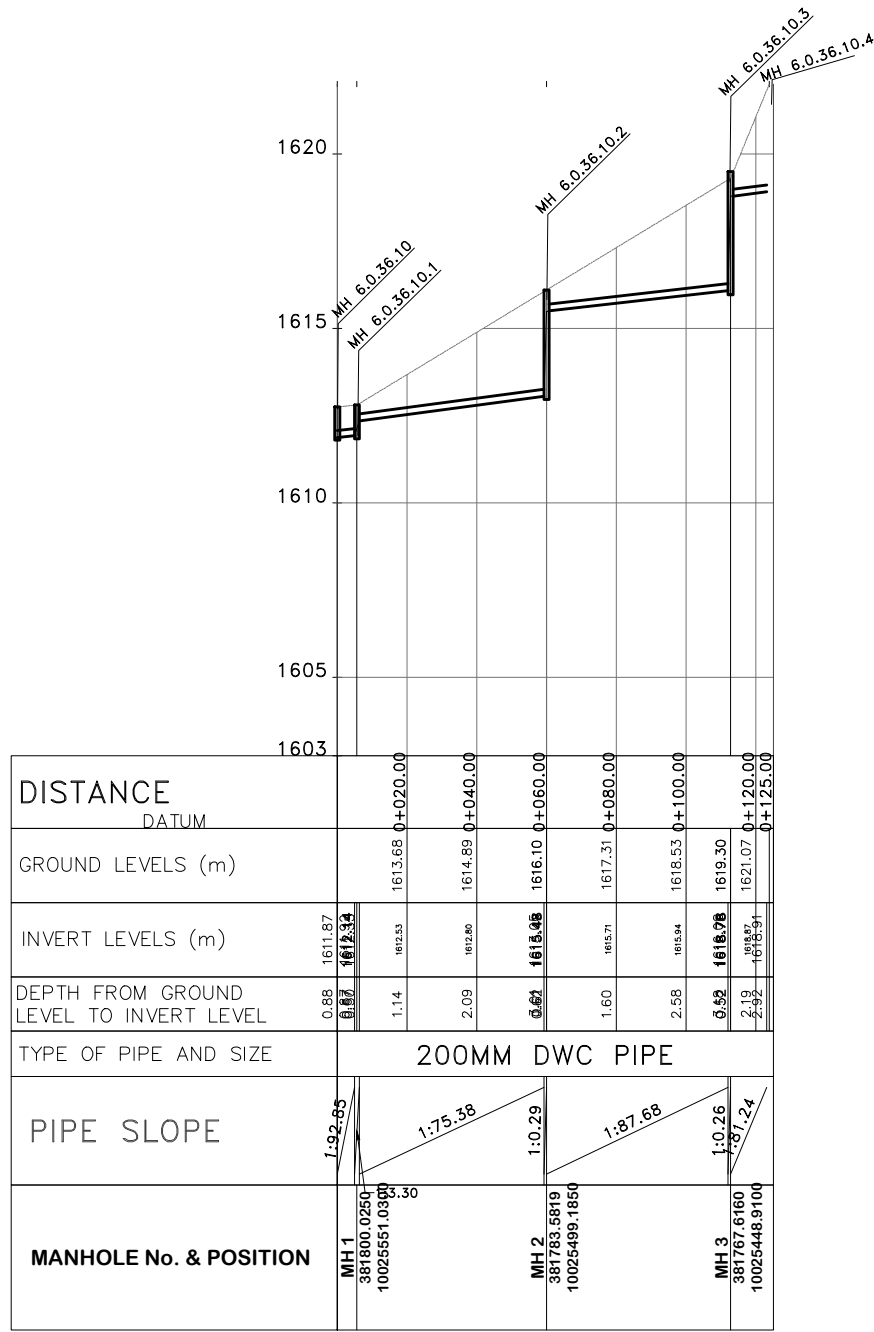
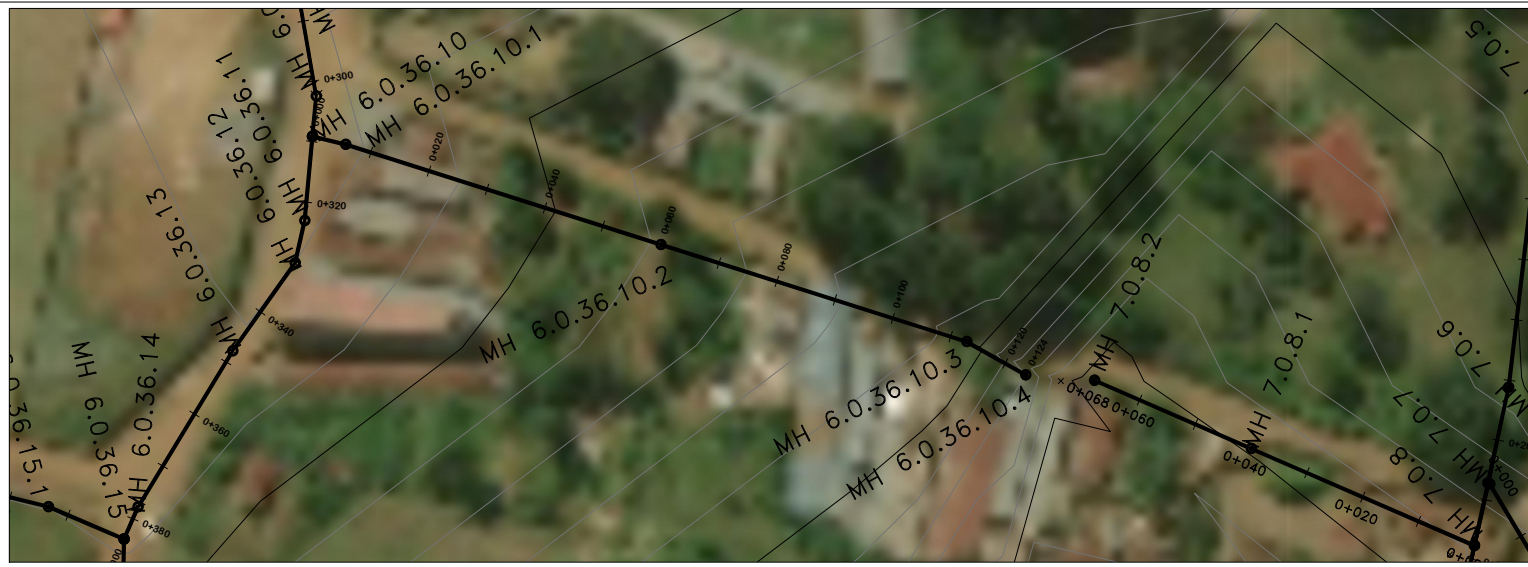
Civil/Structural Engineers



TANA WATER WORKS  
DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

Drawing Title  
MAUA SEWER LAST MILE PROJECT  
LM 7.3  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNF	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:




- NOTES**
- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
  - COORDINATES ARE BASED ON UTM.
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- LEGEND:**
- PROPOSED PIPELINE
  - - - - - EXISTING GROUND PROFILE
  - PIPE INVERT PROFILE
  - EXISTING ROAD
  - ◇ — AIR VALVE
  - DAV — DOUBLE AIR VALVE
  - ▽ — WASHOUT
  - WO1 — WASHOUT TYPE 1
  - WO2 — WASHOUT TYPE 2
  - DN — NOMINAL DIAMETER
  - PN — NOMINAL PRESSURE
  - VB — VERTICAL BEND
  - HB — HORIZONTAL BEND
  - ▨ — EXISTING STRUCTURE
  - ER — EARTH ROAD
  - GR — GRAVEL ROAD
  - CUT

FOR CONSTRUCTION  
signed CMTS

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TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
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PROJECT

MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT

Civil/Structural Engineers

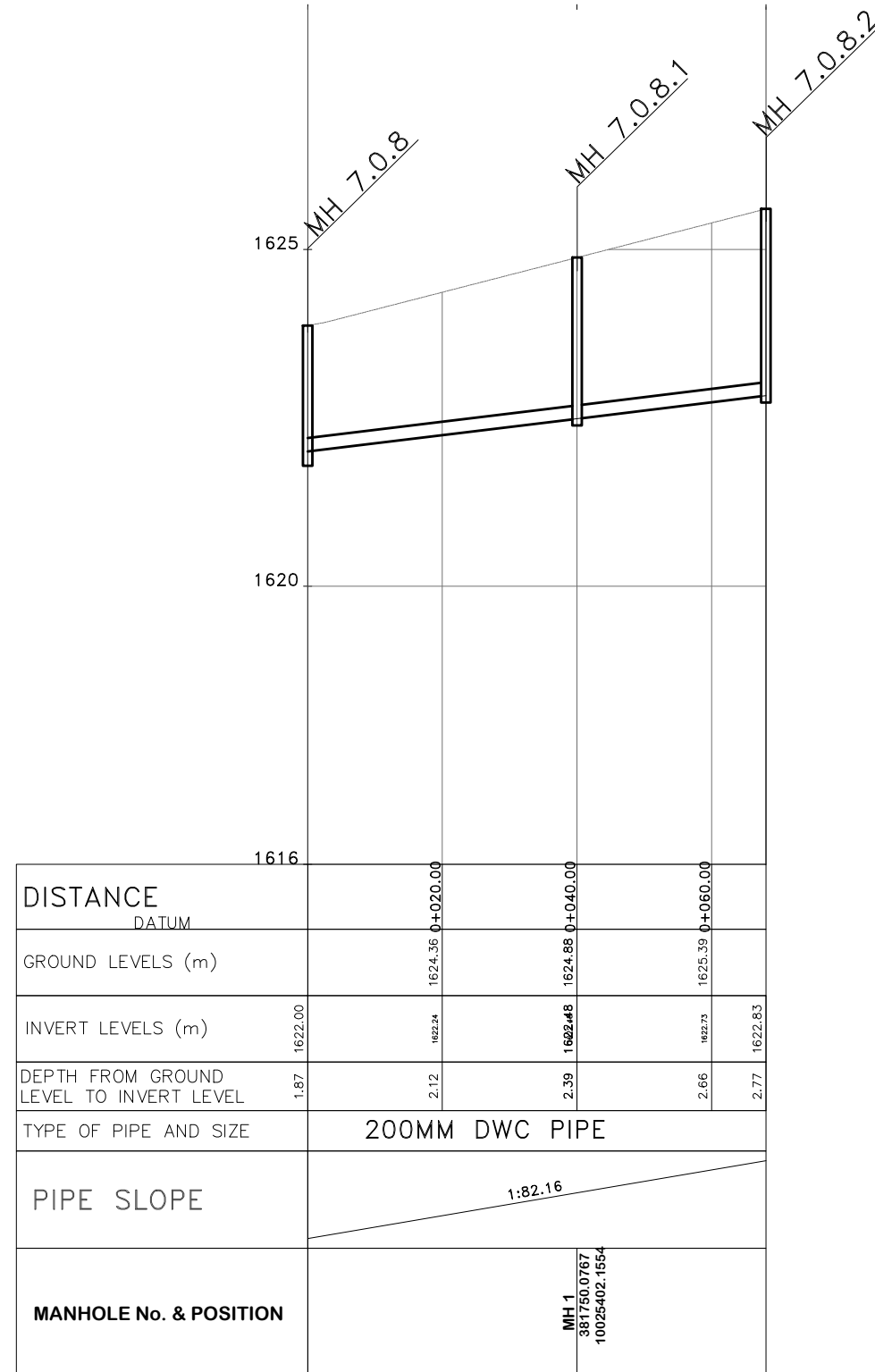
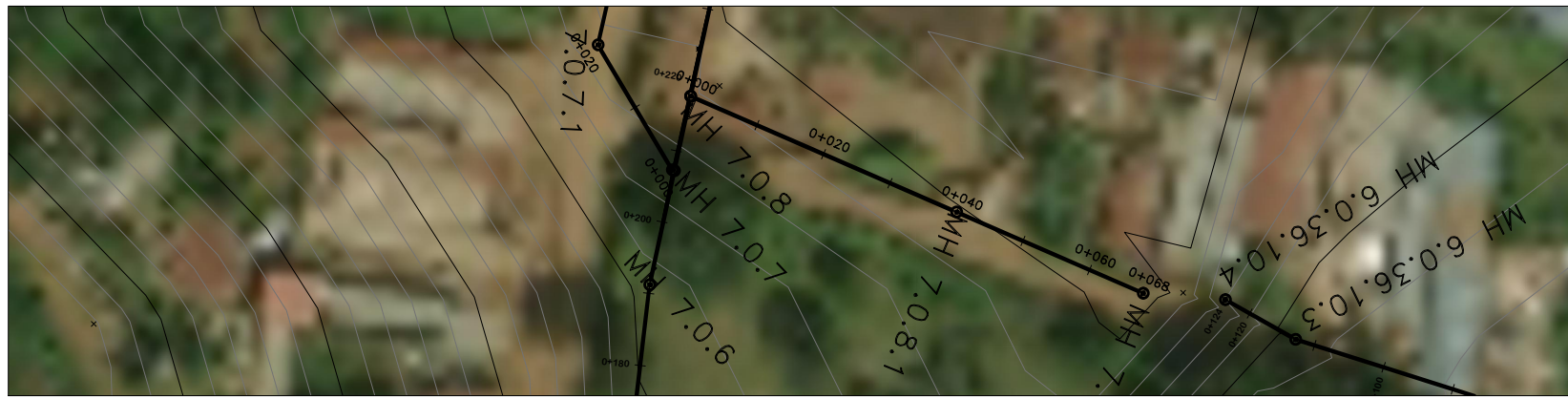


TANA WATER WORKS DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

Drawing Title

MAUA SEWER LAST MILE PROJECT  
LM 7.4  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KING	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:



**NOTES**

1. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
2. COORDINATES ARE BASED ON UTM.
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**LEGEND:**


- PROPOSED PIPELINE
- - - - - EXISTING GROUND PROFILE
- — — — — PIPE INVERT PROFILE
- — — — — EXISTING ROAD
- ⬆ AIR VALVE
- DAV — DOUBLE AIR VALVE
- ▽ WASHOUT
- WO1 — WASHOUT TYPE 1
- WO2 — WASHOUT TYPE 2
- DN — NOMINAL DIAMETER
- PN — NOMINAL PRESSURE
- VB — VERTICAL BEND
- HB — HORIZONTAL BEND
- ▨ EXISTING STRUCTURE
- ER — EARTH ROAD
- GR — GRAVEL ROAD
- ⬆ CUT

FOR CONSTRUCTION

signed CMTS

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TANA WATER WORKS  
DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
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PROJECT

MAUA SEWERAGE LAST MILE  
CONNECTIVITY PROJECT

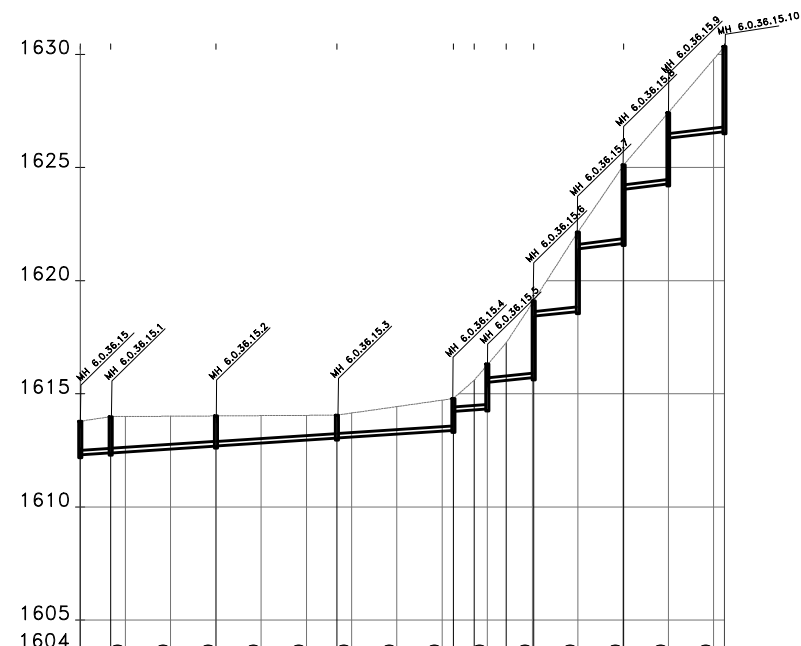
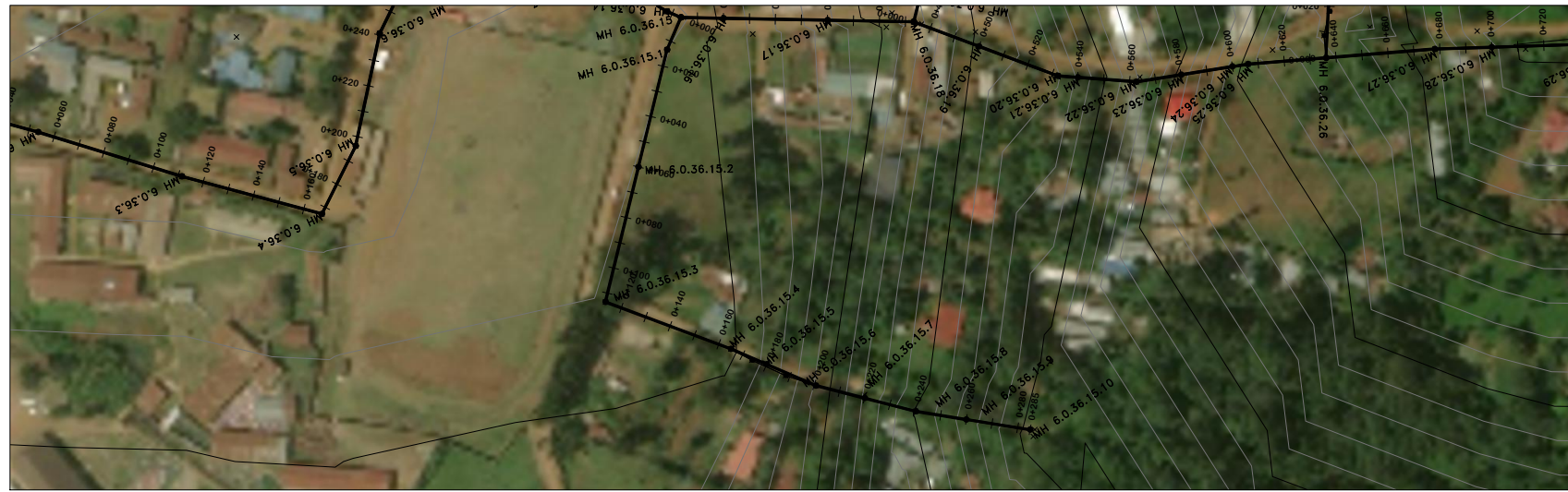
Civil/Structural Engineers



TANA WATER WORKS  
DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
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Drawing Title  
MAUA SEWER LAST MILE PROJECT  
LM 7.5  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KING	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:



DISTANCE DATUM	GROUND LEVELS (m)	INVERT LEVELS (m)	DEPTH FROM GROUND LEVEL TO INVERT LEVEL	TYPE OF PIPE AND SIZE	PIPE SLOPE	MANHOLE No. & POSITION
0+020.00	1613.99	1612.30	1.49	200MM DIA DWC PIPE	1:151.89	MH 1 381740.6360 10025699.8900
0+040.00	1614.01	1612.39	1.37			MH 2 381751.5501 10025645.0285
0+060.00	1614.02	1612.69	1.45			MH 3 381764.2220 10025696.9700
0+080.00	1614.03	1612.82	1.21			MH 4 381765.0070 10025707.8900
0+100.00	1614.05	1612.96	1.09			MH 5 381764.9200 10025699.8900
0+120.00	1614.06	1613.04	1.01			MH 6 381765.9930 10025729.1200
0+140.00	1614.43	1613.09	1.00			MH 7 381765.7300 10025729.1200
0+160.00	1614.72	1613.22	1.21			MH 8 381764.9420 10025739.0600
0+180.00	1615.60	1613.39	0.96			
0+200.00	1617.26	1614.78	0.94			
0+220.00	1619.03	1615.59	0.89			
0+240.00	1622.87	1617.26	0.74			
0+260.00	1625.07	1619.03	0.68			
0+280.00	1627.43	1621.03	0.58			
0+280.00	1629.78	1624.20	3.07			
0+280.00	1629.78	1626.38	3.68			

**NOTES**


- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
- COORDINATES ARE BASED ON UTM.
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**LEGEND:**

- PROPOSED PIPELINE
- EXISTING GROUND PROFILE
- PIPE INVERT PROFILE
- EXISTING ROAD
- AIR VALVE
- DOUBLE AIR VALVE
- WASHOUT
- WASHOUT TYPE 1
- WASHOUT TYPE 2
- NOMINAL DIAMETER
- NOMINAL PRESSURE
- VERTICAL BEND
- HORIZONTAL BEND
- EXISTING STRUCTURE
- EARTH ROAD
- GRAVEL ROAD
- CUT

FOR CONSTRUCTION  
signed CMTS

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**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
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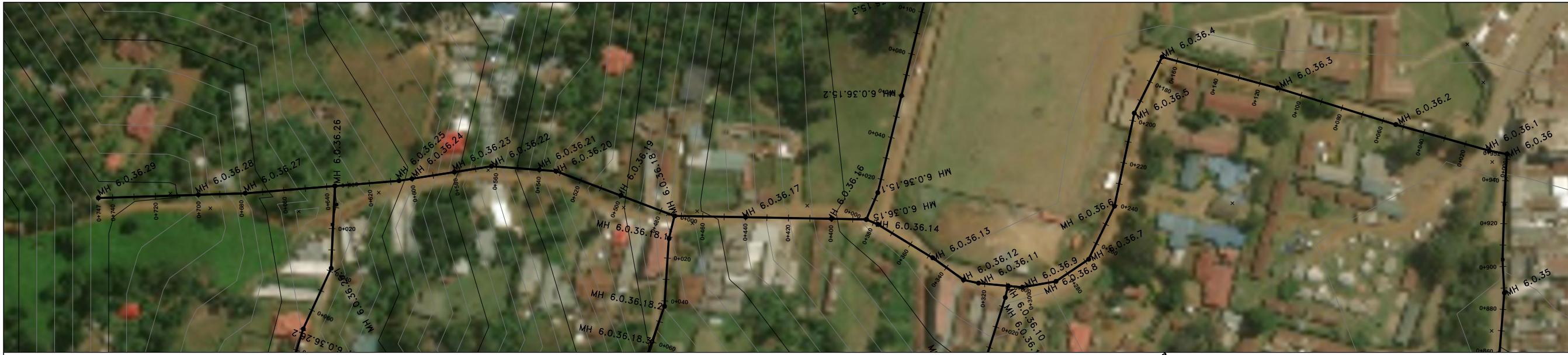
PROJECT  
**MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT**

Civil/Structural Engineers  

**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
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Drawing Title  
**MAUA SEWER LAST MILE PROJECT**  
 LM 7.6  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KING	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:

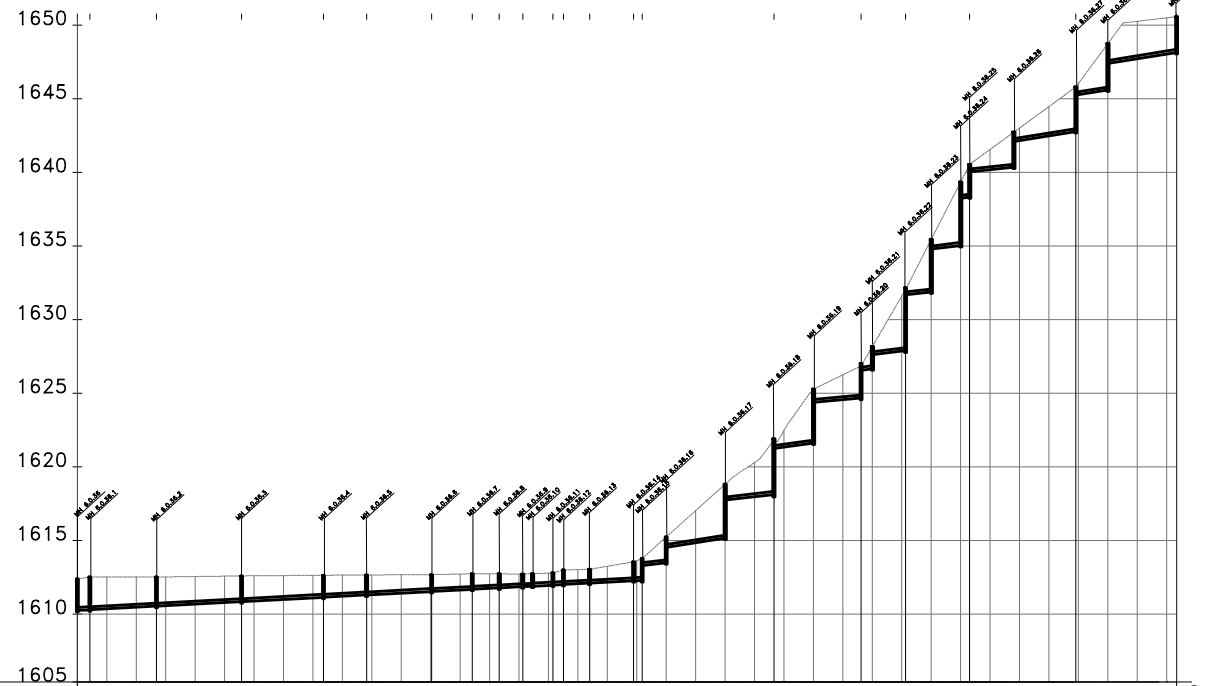


**NOTES**

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**LEGEND:**


- — — — — PROPOSED PIPELINE
- - - - - EXISTING GROUND PROFILE
- — — — — PIPE INVERT PROFILE
- — — — — EXISTING ROAD
- ⬡ AIR VALVE
- ⬢ DAV — DOUBLE AIR VALVE
- ⬣ WASHOUT
- W01 — WASHOUT TYPE 1
- W02 — WASHOUT TYPE 2
- DN — NOMINAL DIAMETER
- PN — NOMINAL PRESSURE
- VB — VERTICAL BEND
- HB — HORIZONTAL BEND
- ▨ EXISTING STRUCTURE
- ER — EARTH ROAD
- GR — GRAVEL ROAD
- CUT




CHAINAGE	EXISTING GROUND LEVEL (m)	INVERT LEVEL (m)	DEPTH FROM GROUND LEVEL TO INVERT LEVEL	TYPE & SIZE OF PIPE	PIPE SLOPE	MANHOLE No. & POSITION	SURVEY REMARKS
0+000	1612.40	1610.257	2.14	200MM DIA DWC PIPE	1:187.72	MH 1 382025.7420	CH 0+480-CH 0+640 Rocky Area
0+020	1612.52	1610.363	2.16				
0+040	1612.52	1610.470	2.05				
0+060	1612.53	1610.576	1.98				
0+080	1612.56	1610.683	1.87				
0+100	1612.58	1610.789	1.79				
0+120	1612.61	1610.896	1.75				
0+140	1612.62	1611.003	1.71				
0+160	1612.64	1611.109	1.62				
0+180	1612.65	1611.216	1.53				
0+200	1612.66	1611.322	1.52				
0+220	1612.67	1611.429	1.43				
0+240	1612.69	1611.535	1.38				
0+260	1612.72	1611.642	1.39				
0+280	1612.74	1611.748	1.38				
0+300	1612.72	1611.855	1.38				
0+320	1612.79	1611.961	1.38				
0+340	1613.03	1612.068	1.38				
0+360	1613.25	1612.175	1.38				
0+380	1613.64	1612.281	1.38				
0+400	1615.25	1614.520	0.73				
0+420	1617.04	1614.841	2.19				
0+440	1618.83	1617.749	3.08				
0+460	1620.31	1617.978	2.33				
0+480	1622.49	1621.349	1.15				
0+500	1625.28	1624.392	0.89				
0+520	1626.25	1624.575	1.68				
0+540	1628.17	1627.624	2.55				
0+560	1631.60	1627.867	3.73				
0+580	1635.45	1634.800	0.65				
0+600	1639.36	1638.229	1.13				
0+620	1641.56	1640.185	1.38				
0+640	1643.02	1642.151	0.87				
0+660	1644.47	1642.473	2.00				
0+680	1646.05	1645.279	0.77				
0+700	1648.75	1647.399	1.35				
0+720	1650.26	1647.721	2.54				
0+740	1650.58	1648.044	2.45				
0+746.66	1650.58	1648.044	2.45				

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signed CMTS

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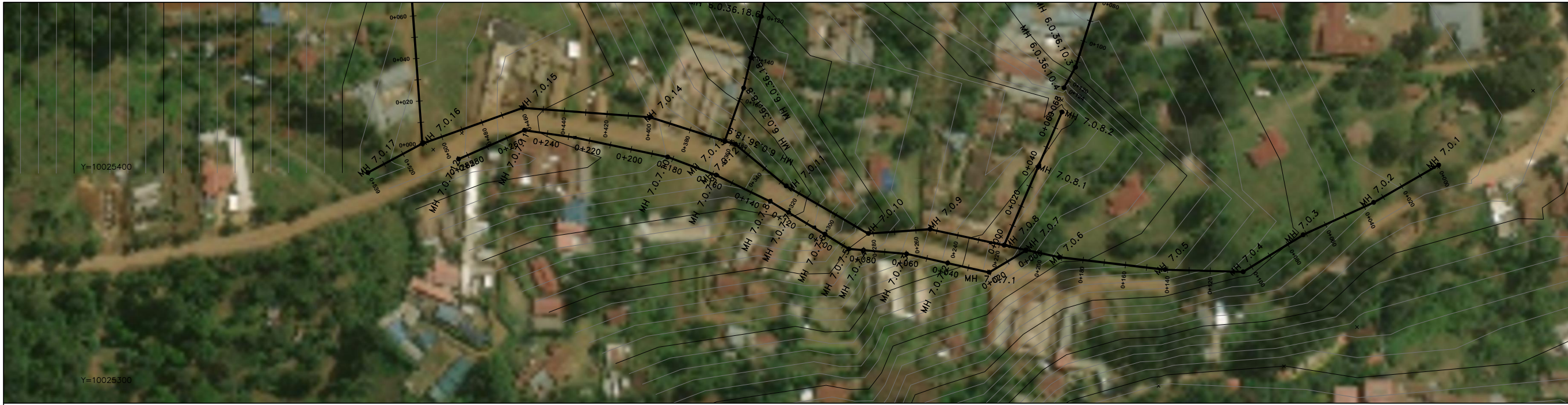
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**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

PROJECT  
**MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT**

Civil/Structural Engineers  

**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

Drawing Title  
**MAUA SEWER LAST MILE PROJECT**  
 LM 7  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by	KNG	Drawn by	FGG
Checked by	JMM	Approved by	
Scale	AS SHOWN (A1)	Date	APRIL 2024
Job No.	1	ACAD File:	
PD STATUS	DRAWING No. TWWDA/MALMSP/LM7	CO	REV



**NOTES**

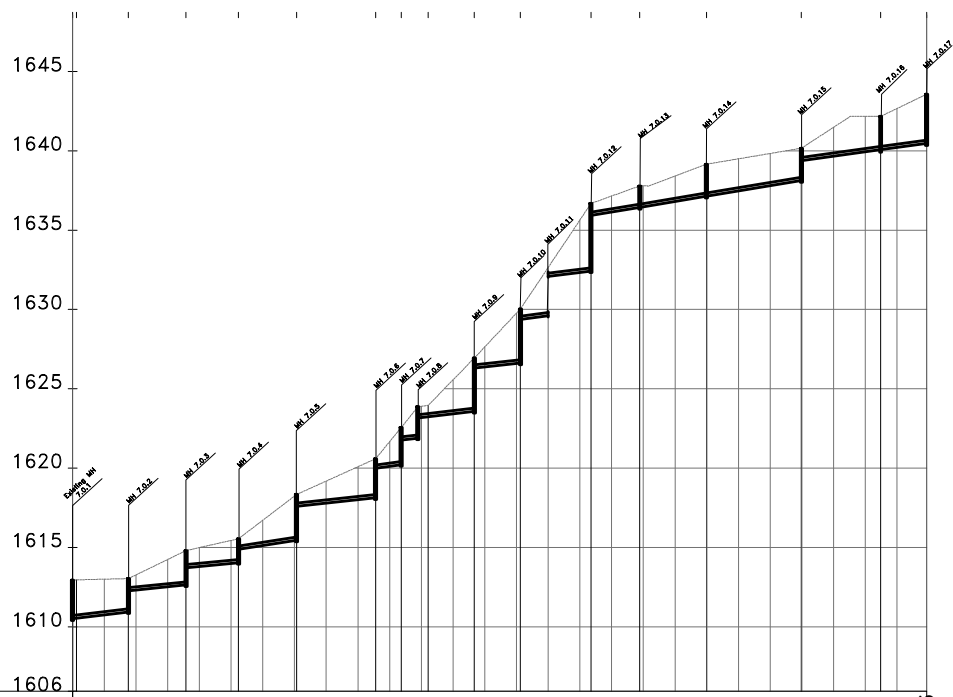
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**LEGEND:**

- PROPOSED PIPELINE
- EXISTING GROUND PROFILE
- PIPE INVERT PROFILE
- EXISTING ROAD
- AIR VALVE
- DOUBLE AIR VALVE
- WASHOUT
- WASHOUT TYPE 1
- WASHOUT TYPE 2
- NOMINAL DIAMETER
- NOMINAL PRESSURE
- VERTICAL BEND
- HORIZONTAL BEND
- EXISTING STRUCTURE
- EARTH ROAD
- GRAVEL ROAD
- CUT


FOR CONSTRUCTION  
signed CMTS

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CHAINAGE	EXISTING GROUND LEVEL (m)	INVERT LEVEL (m)	DEPTH FROM GROUND LEVEL TO INVERT LEVEL	TYPE & SIZE OF PIPE	SLOPE OF PIPE	MANHOLE No. & POSITION
0+000	1612.93	1610.501	2.43	200MM DIA DWC PIPE		MH 1 3811935.7312
0+020	1613.00	1610.748	2.25			MH 2 10025402.0202
0+040	1613.27	1612.319	0.95			MH 3 3811907.4780
0+060	1614.24	1612.517	1.72			MH 4 10025385.4600
0+080	1614.99	1613.806	1.19			MH 5 3811874.4265
0+100	1615.44	1613.994	1.45			MH 6 10025370.2875
0+120	1616.71	1615.121	1.59			MH 7 3811846.2580
0+140	1618.24	1615.432	2.81			MH 8 10025352.9650
0+160	1619.18	1617.791	1.39			MH 9 3811809.6263
0+180	1620.09	1618.006	2.08			MH 10 10025353.9867
0+200	1621.67	1620.119	1.55			MH 11 3811650.1096
0+220	1623.90	1623.204	0.68			MH 12 10025349.8701
0+240	1625.57	1623.425	2.14			MH 13 3811727.6254
0+260	1627.64	1626.387	1.25			MH 14 10025366.6214
0+280	1629.77	1628.593	1.18			MH 15 3811699.3200
0+300	1632.65	1632.086	0.57	MH 16 10025372.9500		
0+320	1635.64	1632.336	3.30	MH 17 3811670.3070		
0+340	1637.15	1636.145	1.01	MH 18 10025370.8990		
0+360	1637.79	1636.477	1.32	MH 19 3811631.7690		
0+380	1638.41	1636.808	1.60	MH 20 10025393.2500		
0+400	1639.16	1637.140	2.02	MH 21 3811607.9966		
0+420	1639.50	1637.471	2.03	MH 22 10025412.7216		
0+440	1639.84	1637.803	2.03	MH 23 3811567.8768		
0+460	1640.19	1639.394	0.79	MH 24 10025425.4442		
0+480	1641.49	1639.668	1.82	MH 25 3811508.1706		
0+500	1642.17	1639.942	2.23	MH 26 10025429.8434		
0+520	1642.67	1640.216	2.45	MH 27 3811461.0856		
0+538.65	1642.67	1640.471	2.20	MH 28 10025413.0838		

CLIENT




TANA WATER WORKS  
DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

PROJECT

MAUA SEWERAGE LAST MILE  
CONNECTIVITY PROJECT

Civil/Structural Engineers



TANA WATER WORKS  
DEVELOPMENT AGENCY  
P. O. BOX 1292-10100  
NYERI

Drawing Title

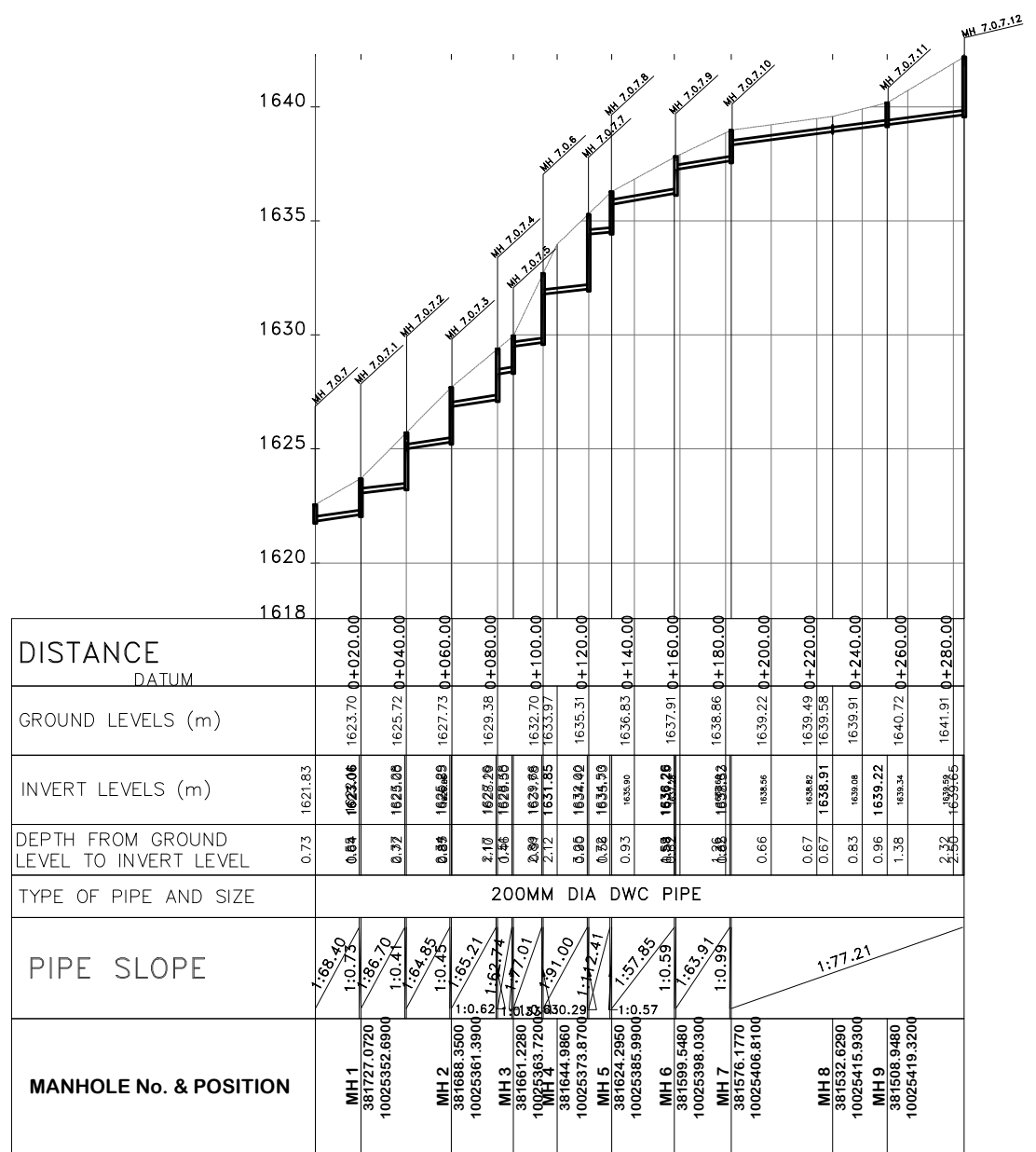
MAUA SEWER LAST MILE PROJECT  
LM 8  
PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KNG	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File:
PD STATUS	DRAWING No. TWWDA/MALMSP/LM8



- ### NOTES
- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
  - COORDINATES ARE BASED ON UTM.
  - LOCATION OF AIR VALVES, WASHOUTS, BENDS AND OTHER FITTINGS AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
  - GROUND AND INVERT LEVEL SHOWN ARE AS SHOWN ON DRAWING UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
  - PIPES ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE.
  - ALL BENDS ARE HORIZONTAL UNLESS OTHERWISE STATED.
  - IN WATER LOGGED AREAS, PIPES TO BE BEDDED WITH SINGLE SIZED OR GRADED AGGREGATES AS PER CLAUSE 430.1 AND 216 OF TECHNICAL SPECIFICATIONS AND/OR ANCHOR BLOCKS AS MAY BE DIRECTED ON SITE BY THE ENGINEER.

- ### LEGEND:
- PROPOSED PIPELINE
  - EXISTING GROUND PROFILE
  - PIPE INVERT PROFILE
  - EXISTING ROAD
  - AIR VALVE
  - DOUBLE AIR VALVE
  - WASHOUT
  - WASHOUT TYPE 1
  - WASHOUT TYPE 2
  - NOMINAL DIAMETER
  - NOMINAL PRESSURE
  - VERTICAL BEND
  - HORIZONTAL BEND
  - EXISTING STRUCTURE
  - EARTH ROAD
  - GRAVEL ROAD
  - CUT



FOR CONSTRUCTION  
signed CMTS

REV	REVISIONS	SIGN	DATE	APPROVED
	BY			
	CHECKED			
	BY			
	CHECKED			
CO	ISSUED FOR CONSTRUCTION	BY		
	CHECKED			

CLIENT  
**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

PROJECT  
**MAUA SEWERAGE LAST MILE CONNECTIVITY PROJECT**

Civil/Structural Engineers  
**TANA WATER WORKS DEVELOPMENT AGENCY**  
 P. O. BOX 1292-10100  
 NYERI

Drawing Title  
**MAUA SEWER LAST MILE PROJECT**  
 LM 9  
 PLAN AND PROFILE (SHEET 1 OF 1)

Designed by KING	Drawn by FGG
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date APRIL 2024
Job No. 1	ACAD File: