

NOTES AND SPECIFICATIONS

GENERAL

- 1 ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SABS REQUIREMENTS.
- 2 ALL DIMENSIONS ARE IN MILLIMETERS. (UNLESS OTHERWISE SPECIFIED)
- 3 DO NOT SCALE FROM THESE DRAWINGS.
- 4 ALL DIMENSIONS MUST BE CHECKED AND APPROVED ON SITE.
- 5 ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, THIRD EDITION 2005 AND THE STANDARD CTMM DETAIL DRAWINGS
- 6 THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS. (IF APPLICABLE)
- 7 THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, SERIES 6.
- 8 THE SIGNATURE OR INITIALS ON THIS DRAWING, OF ANY MANAGER OF THE TRANSPORT DEPARTMENT, IN NO WAY REMOVES ANY RESPONSIBILITY WHATSOEVER FROM THE CONSULTANT.
- 9 THE CONSULTANT REMAINS RESPONSIBLE TO ENSURE THAT ALL THE GUIDELINES, STANDARD DRAWINGS, STANDARDS AND SPECIFICATIONS OF THE TRANSPORT DEPARTMENT HAVE BEEN MET AND ARE COMPLIED WITH.
- 10 FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.

LEGEND:

- STORMWATER:
- NEW PROPOSED PIPE:
 - EXISTING PIPE:
 - NEW PROPOSED MANHOLE:
 - PROPOSED GRID INLET:
- SEWER:
- NEW PROPOSED PIPE:

ABBREVIATIONS:

1. 450ø / uPVC/120m
LENGTH OF PIPE
PIPE MATERIAL
NOMINAL DIAMETER OF PIPE

AMENDMENTS

NR.	DATE	APPROVED	DESCRIPTION	PAR.
A	JUNE 2018		ISSUED FOR APPROVAL	
B	AUG 2018		ISSUED FOR APPROVAL	

DESIGNED: M. RAMONGANE	DRAWN: M. RAMONGANE
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____
DESIGN CHECKED BY: F.J. VAN RENSBURG	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____

PROJECT STATUS

<input type="radio"/> CONCEPT DRAWING	<input checked="" type="radio"/> TENDER DRAWING	<input type="radio"/> APPROVED CONTRACTOR DRAWING	<input type="radio"/> AS BUILT DRAWING
PROJECT ENGINEER (CONSULTANT)			
F. J. VAN RENSBURG	2017 70172	DATE	
INITIALS AND SURNAME	SIGNATURE AND P. No.	DATE	
INSPECTOR OF WORKS (CITY OF TSHWANE)			
INITIALS AND SURNAME	SIGNATURE AND P. No.	DATE	

CONSULTANT DETAIL

MITOU
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 14 Escallonia Street
 Montana Park
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 P.O. Box 15684, Lynn East, 0039
 Tel: +27 12 548 0196
 Fax: +27 12 548 0298
 email: info@mitou.co.za

CITY OF TSHWANE
ROADS AND TRANSPORT DEPARTMENT

Ms. Nava Pillay
Acting STRATEGIC EXECUTIVE DIRECTOR
P.O. BOX 1409
PRETORIA
0001

Ms. L. V. Kegakile-Piki
EXECUTIVE DIRECTOR
P.O. BOX 1409
PRETORIA
0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR
Ms. L. V. Kegakile-Piki

SIGNATURE: _____ DATE: _____

LOCATION OF PROJECT:

MONTANA SPRUIT CHANNEL
IMPROVEMENT: PHASE 1

DESCRIPTION OF PROJECT

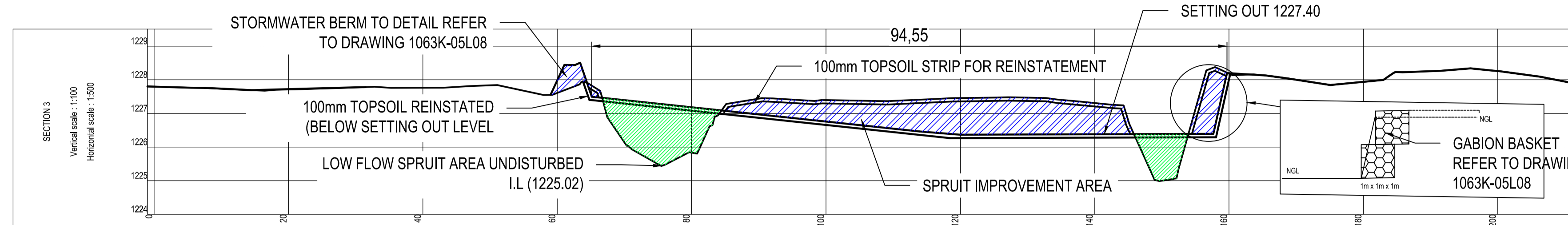
CHANNEL IMPROVEMENT
SECTIONS

CONTRACT No.: RTD01-2016/2017-TIDC18 PROJECT No.: 1063K

DATE: AUG 2018 SCALE: 1:500 ORIGINAL PAPER SIZE: A1

DRAWING NO.: 1063K-05L02 SHEET NO.: 2 OF 8

REVISION



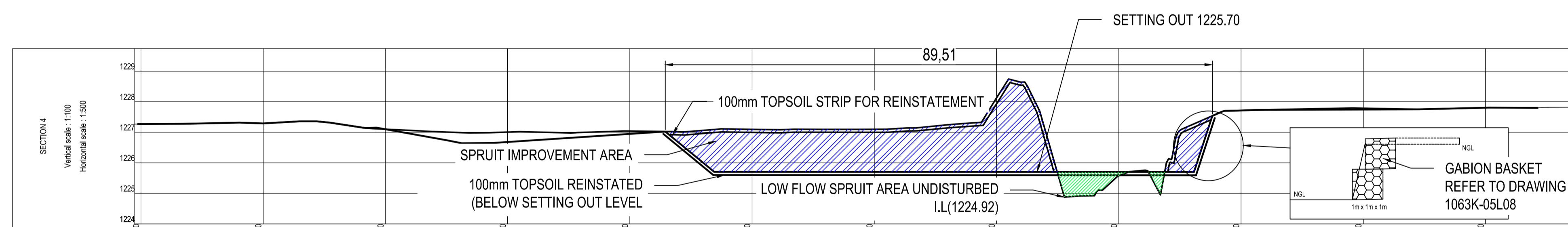
Distance	Elevation	Description
-1.00	1227.80	EXISTING NATURAL GROUND LEVEL PROFILE
5.44	1227.77	
7.36	1227.76	
16.46	1227.68	
18.18	1227.70	
21.12	1227.72	
27.57	1227.75	
32.81	1227.80	
35.23	1227.76	
42.13	1227.77	
47.15	1227.82	
51.09	1227.85	
57.88	1227.55	
59.25	1227.55	
63.34	1227.87	
66.40	1227.67	
70.36	1226.04	
75.49	1226.44	
78.64	1226.85	
83.95	1226.62	
83.95	1226.84	
90.49	1227.46	
92.11	1227.45	
96.30	1227.37	
107.28	1227.37	
109.22	1227.37	
115.85	1227.42	
118.77	1227.46	
125.39	1227.47	
127.15	1227.48	
130.74	1227.45	
134.44	1227.41	
137.79	1227.35	
142.64	1227.26	
144.31	1227.24	
148.95	1225.02	
151.74	1225.05	
156.65	1226.28	
157.92	1226.38	
160.53	1226.14	
163.88	1226.16	
165.49	1226.13	
166.79	1226.04	
175.07	1227.84	
182.39	1226.00	
183.65	1226.00	
186.65	1226.23	
191.53	1226.27	
195.65	1226.34	
198.32	1226.27	
206.39	1226.09	
210.15	1227.94	

Distance	Elevation	Description
-1.00	1227.80	SPRUIT IMPROVEMENT PROFILE
5.44	1227.77	
7.36	1227.76	
14.49	1227.69	
30.03	1227.78	
31.51	1227.78	
43.80	1227.68	
46.16	1227.77	
54.81	1227.69	
56.14	1227.61	
61.05	1226.84	
62.83	1226.84	
65.15	1227.50	
113.89	1226.47	
119.96	1226.37	
146.15	1226.38	
157.66	1226.39	
159.10	1226.20	
165.49	1226.13	
166.79	1226.04	
175.07	1227.84	
182.39	1226.00	
183.65	1226.00	
186.65	1226.23	
191.53	1226.27	
195.65	1226.34	
198.32	1226.27	
206.39	1226.09	
210.15	1227.94	

CROSS SECTION 3
SCALE 1:500
REFER TO DRAWING
1063K-01U01

Q 1:100 = 119m³/s
V 1:100 = 2.52m/s

Q 1:50 = 100m³/s
V 1:50 = 2.38m/s



Distance	Elevation	Description
-0.50	1227.27	EXISTING NATURAL GROUND LEVEL PROFILE
7.00	1227.27	
16.12	1227.32	
20.02	1227.29	
25.83	1227.36	
28.79	1227.36	
30.63	1227.32	
36.77	1227.14	
38.52	1227.15	
45.30	1227.05	
53.81	1226.98	
56.96	1226.99	
61.99	1227.02	
66.87	1226.98	
70.35	1226.97	
77.81	1227.03	
79.28	1227.04	
87.06	1227.02	
88.49	1227.01	
94.65	1227.10	
104.59	1227.08	
106.83	1227.10	
111.37	1227.09	
117.33	1227.09	
122.05	1227.10	
125.37	1227.14	
126.81	1227.14	
133.12	1227.25	
136.49	1227.30	
137.53	1227.32	
139.88	1226.08	
141.97	1226.74	
143.96	1226.64	
147.08	1227.69	
151.12	1224.87	
153.66	1224.82	
157.31	1225.10	
157.31	1225.10	
159.85	1225.57	
161.79	1225.71	
164.32	1225.76	
168.82	1224.95	
168.14	1225.14	
169.63	1226.96	
175.94	1227.68	
179.43	1227.71	
182.16	1227.73	
182.16	1227.73	
198.27	1227.79	
209.08	1227.75	
220.63	1227.81	
226.54	1227.79	
230.42	1227.82	
236.79	1227.82	

Distance	Elevation	Description
-0.50	1227.27	SPRUIT IMPROVEMENT PROFILE
7.00	1227.27	
16.12	1227.32	
20.02	1227.29	
25.83	1227.36	
28.79	1227.36	
30.63	1227.32	
36.77	1227.14	
38.52	1227.15	
50.13	1226.73	
52.47	1226.64	
57.88	1226.65	
65.80	1227.02	
69.83	1226.70	
69.83	1226.70	
172.30	1225.70	
175.24	1227.50	
175.94	1227.68	
179.43	1227.71	
182.16	1227.73	
209.08	1227.75	
220.63	1227.81	
226.54	1227.79	
230.42	1227.82	
236.79	1227.82	

CROSS SECTION 4
SCALE 1:500
REFER TO DRAWING
1063K-01U01

Q 1:100 = 119m³/s
V 1:100 = 1.91m/s

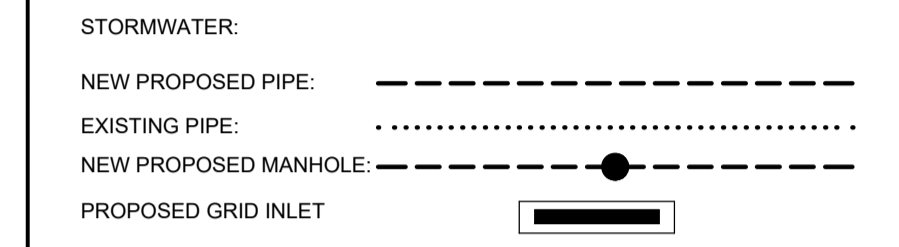
Q 1:50 = 100m³/s
V 1:50 = 1.81m/s

NOTES AND SPECIFICATIONS

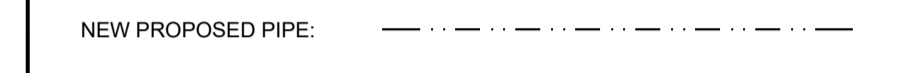
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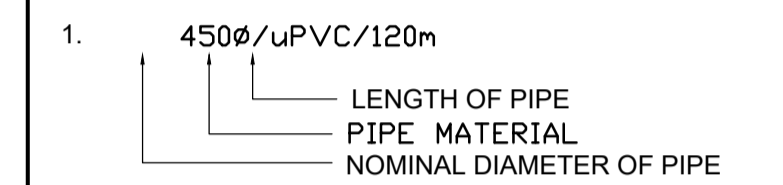
LEGEND:



SEWER:

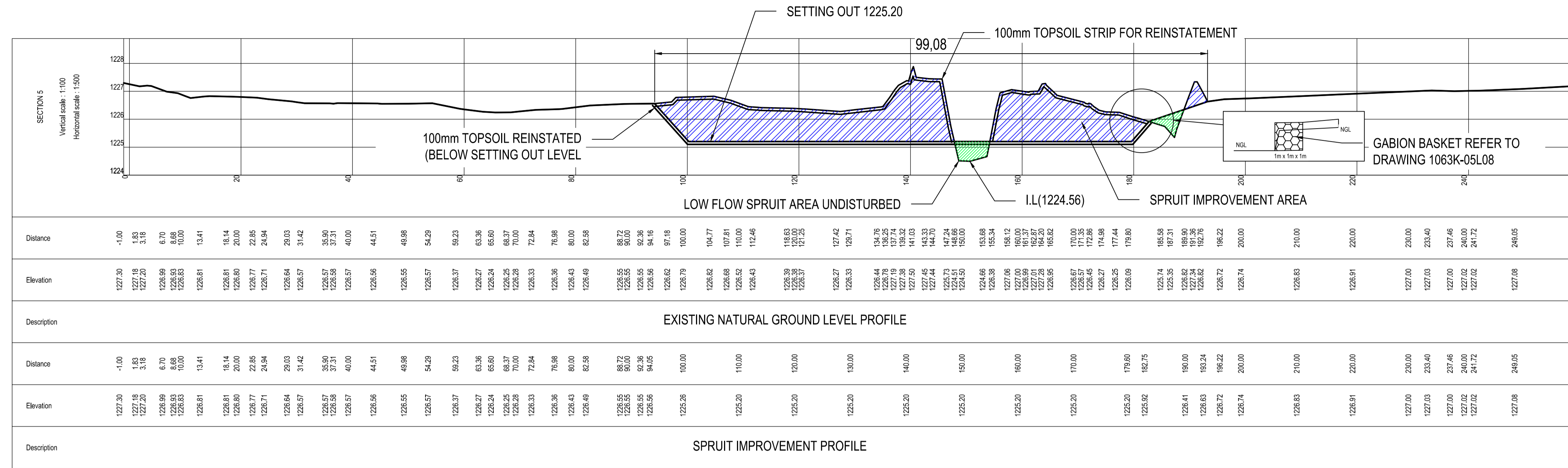


ABBREVIATIONS:

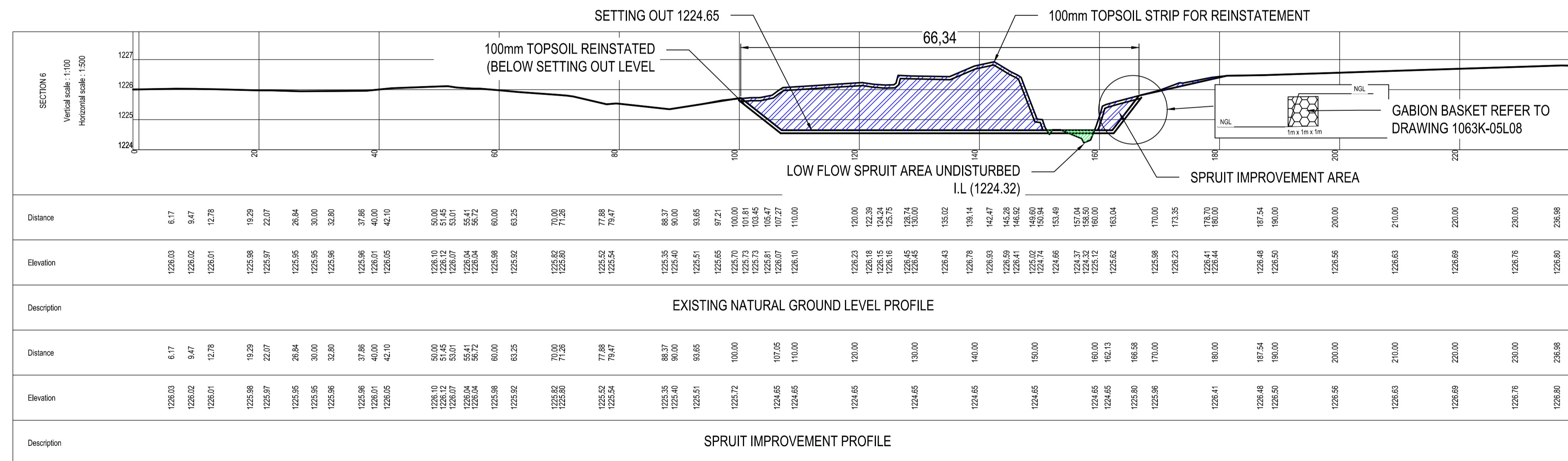


Q 1:100 = 119m³/s
V 1:100 = 1.56m/s

Q 1:50 = 100m³/s
V 1:50 = 1.50m/s



CROSS SECTION 5
SCALE 1:500
REFER TO DRAWING
1063K-01U01



CROSS SECTION 6
SCALE 1:500
REFER TO DRAWING
1063K-01U01

Q 1:100 = 119m³/s
V 1:100 = 1.65m/s

Q 1:50 = 100m³/s
V 1:50 = 1.61m/s

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.
A	JUNE 2018		ISSUED FOR APPROVAL	
B	AUG 2018		ISSUED FOR APPROVAL	

DESIGNED: M. RAMONGANE	DRAWN: M. RAMONGANE
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____
DESIGN CHECKED BY: F.J. VAN RENSBURG	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____

PROJECT STATUS			
<input type="radio"/> CONCEPT DRAWING	<input checked="" type="radio"/> TENDER DRAWING	<input type="radio"/> APPROVED CONTRACTOR DRAWING	<input type="radio"/> AS BUILT DRAWING

PROJECT ENGINEER (CONSULTANT)	
F.J. VAN RENSBURG	2017 70172
INITIALS AND SURNAME	SIGNATURE AND P. No. _____ DATE _____
INSPECTOR OF WORKS (CITY OF TSHWANE)	
INITIALS AND SURNAME	SIGNATURE AND P. No. _____ DATE _____

CONSULTANT DETAIL

Unit 4, 5th Dimension
14 Escallonia Street
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1912

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email: info@miltoou.co.za

CITY OF TSHWANE
ROADS AND TRANSPORT DEPARTMENT

Ms. Nava Pillay
Acting STRATEGIC EXECUTIVE DIRECTOR

Ms. L. V. Kegakile-Piki
EXECUTIVE DIRECTOR

P.O. BOX 1409
PRETORIA 0001

P.O. BOX 1409
PRETORIA 0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR
Ms. L. V. Kegakile-Piki

SIGNATURE: _____ DATE: _____

MONTANA SPRUIT CHANNEL IMPROVEMENT: PHASE 1

CHANNEL IMPROVEMENT SECTIONS

DESCRIPTION OF PROJECT

CONTRACT No.: RTD01-2016/2017-TIDC18	PROJECT No.: 1063K	
DATE: AUG 2018	SCALE: 1:500	ORIGINAL PAPER SIZE: A1
DRAWING NO.: 1063K-05L03	SHEET NO.: 3 OF 8	REVISION:

NOTES AND SPECIFICATIONS

GENERAL

- 1 ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SABS REQUIREMENTS.
- 2 ALL DIMENSIONS ARE IN MILLIMETERS. (UNLESS OTHERWISE SPECIFIED)
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- 10 FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.

LEGEND:

STORMWATER:

NEW PROPOSED PIPE:

EXISTING PIPE:

NEW PROPOSED MANHOLE:

PROPOSED GRID INLET:

SEWER:

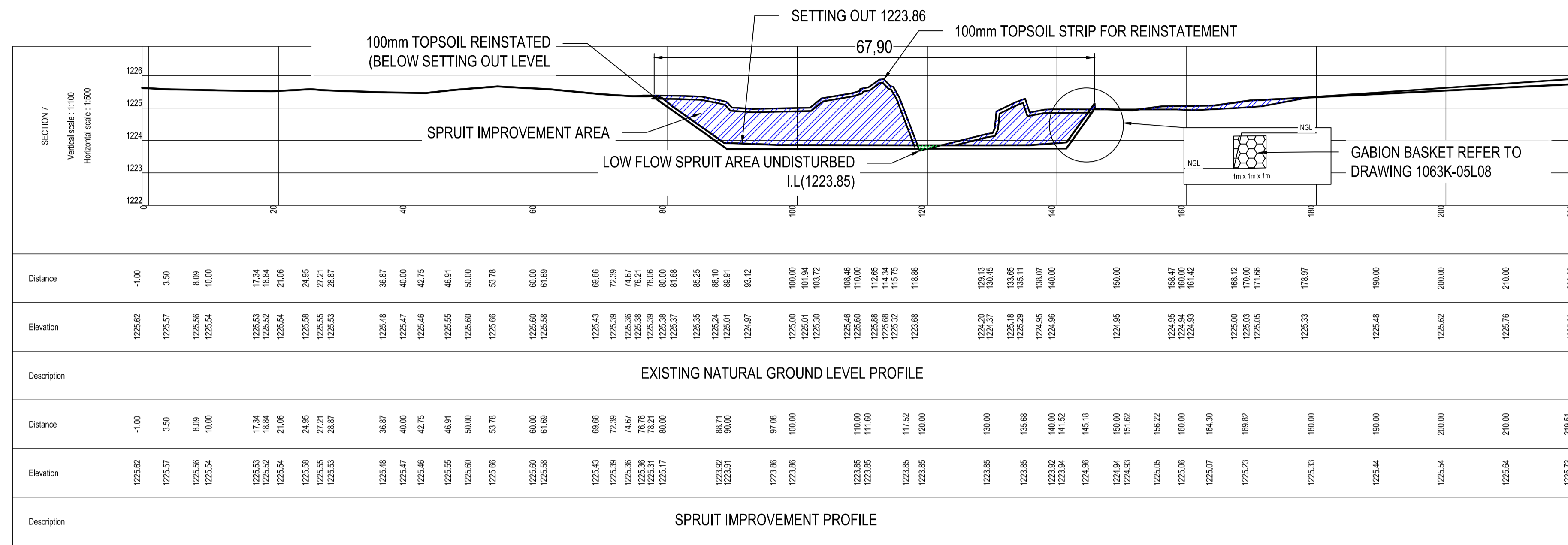
NEW PROPOSED PIPE:

ABBREVIATIONS:

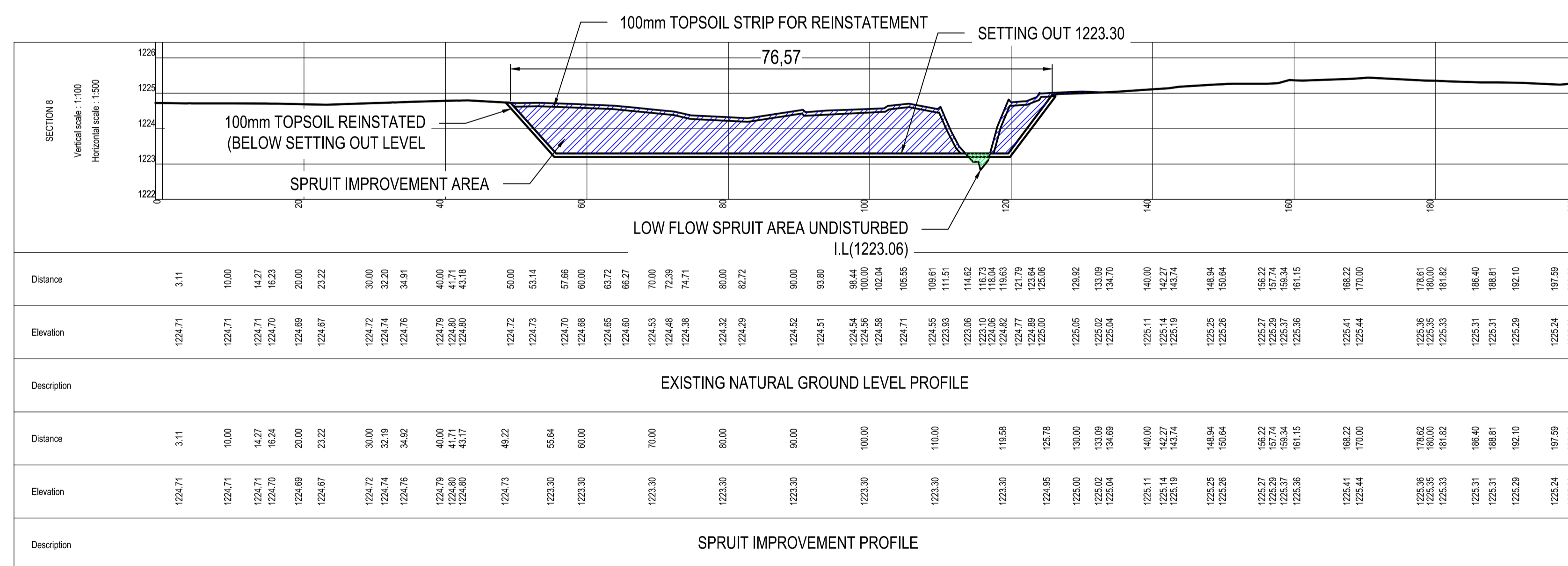
1. 450Ø uPVC/120m
LENGTH OF PIPE
PIPE MATERIAL
NOMINAL DIAMETER OF PIPE

Q 1:100 = 119m³/s
V 1:100 = 1.00m/s

Q 1:50 = 100m³/s
V 1:50 = 0.94m/s



CROSS SECTION 7
SCALE 1:500
REFER TO DRAWING
1063K-01U01



CROSS SECTION 8
SCALE 1:500
REFER TO DRAWING
1063K-01U01

Q 1:100 = 119m³/s
V 1:100 = 1.80m/s

Q 1:50 = 100m³/s
V 1:50 = 1.74m/s

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.
A	JUNE 2018		ISSUED FOR APPROVAL	
B	AUG 2018		ISSUED FOR APPROVAL	

DESIGNED: M. RAMONGANE	DRAWN: M. RAMONGANE
DESIGN CHECKED BY: F.J. VAN RENSBURG	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT

PROJECT STATUS			
<input type="radio"/> CONCEPT DRAWING	<input checked="" type="radio"/> TENDER DRAWING	<input type="radio"/> APPROVED CONTRACTOR DRAWING	<input type="radio"/> AS BUILT DRAWING
PROJECT ENGINEER (CONSULTANT)			
F.J. VAN RENSBURG	2017 70172	DATE	
INSPECTOR OF WORKS (CITY OF TSHWANE)			
INITIALS AND SURNAME SIGNATURE AND P. No. DATE			

CONSULTANT DETAIL

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CITY OF TSHWANE
ROADS AND TRANSPORT DEPARTMENT

Mr Nava Pillay
Acting STRATEGIC EXECUTIVE DIRECTOR

Ms. L. V. Kegakwe-Piki
EXECUTIVE DIRECTOR

P.O. BOX 1409
PRETORIA 0001

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PRETORIA 0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR
Ms. L. V. Kegakwe-Piki

LOCATION OF PROJECT:

MONTANA SPRUIT CHANNEL IMPROVEMENT: PHASE 1

DESCRIPTION OF PROJECT:

CHANNEL IMPROVEMENT SECTIONS

CONTRACT No.: RTD01-2016/2017-TIDC18	PROJECT No.: 1063K	
DATE: AUG 2018	SCALE: 1:500	ORIGINAL PAPER SIZE: A1
DRAWING NO.: 1063K-05L04	SHEET NO.: 4 OF 8	REVISION:

NOTES AND SPECIFICATIONS

GENERAL

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LEGEND:

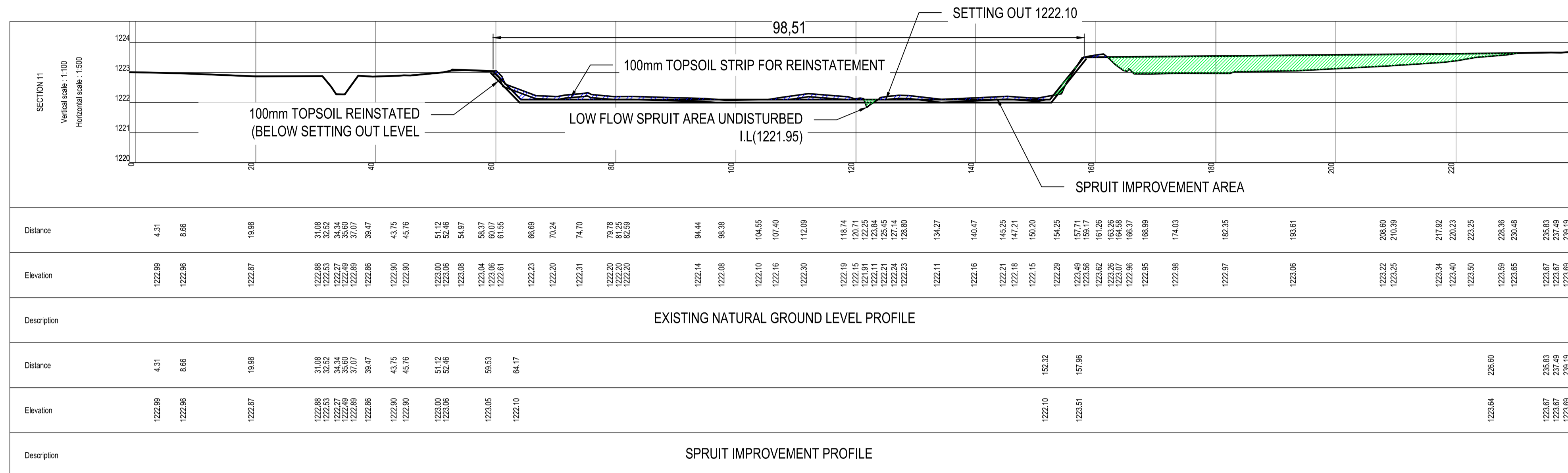
- STORMWATER:
- NEW PROPOSED PIPE:
 - EXISTING PIPE:
 - NEW PROPOSED MANHOLE:
 - PROPOSED GRID INLET:
- SEWER:
- NEW PROPOSED PIPE:

ABBREVIATIONS:

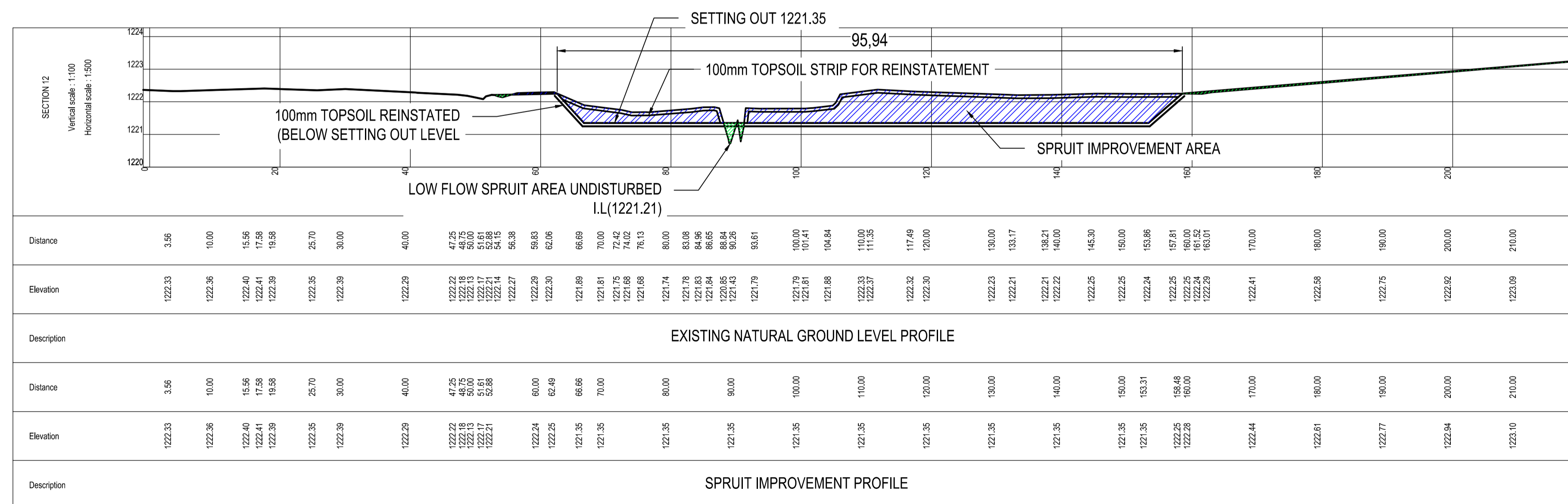
1. 450ø / uPVC / 120m
LENGTH OF PIPE
PIPE MATERIAL
NOMINAL DIAMETER OF PIPE

Q 1:100 = 119m³/s
V 1:100 = 1.76m/s

Q 1:50 = 100m³/s
V 1:50 = 1.65m/s



CROSS SECTION 11
SCALE 1:500
REFER TO DRAWING
1063K-01U01



CROSS SECTION 12
SCALE 1:500
REFER TO DRAWING
1063K-01U01

Q 1:100 = 119m³/s
V 1:100 = 2.03m/s

Q 1:50 = 100m³/s
V 1:50 = 1.89m/s

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.
A	JUNE 2018		ISSUED FOR APPROVAL	
B	AUG 2018		ISSUED FOR APPROVAL	

DESIGNED: M. RAMONGANE	DRAWN: M. RAMONGANE
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____
DESIGN CHECKED BY: F.J. VAN RENSBURG	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____

PROJECT STATUS			
CONCEPT DRAWING	TENDER DRAWING	APPROVED CONSTRUCTION DRAWING	AS BUILT DRAWING
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PROJECT ENGINEER (CONSULTANT)	
F.J. VAN RENSBURG	2017 70172
INITIALS AND SURNAME	SIGNATURE AND P. No. DATE
INSPECTOR OF WORKS (CITY OF TSHWANE)	
INITIALS AND SURNAME	SIGNATURE AND P. No. DATE

CONSULTANT DETAIL

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0152

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EXECUTIVE DIRECTOR

P.O. BOX 1409
PRETORIA 0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR
Ms. L. V. Kegakile-Piki

LOCATION OF PROJECT:

MONTANA SPRUIT CHANNEL IMPROVEMENT: PHASE 1

DESCRIPTION OF PROJECT:

CHANNEL IMPROVEMENT SECTIONS

CONTRACT No.: RTD01-2016/2017-TIDC18	PROJECT No.: 1063K
DATE: AUG 2018	SCALE: 1:500
DRAWING NO.: 1063K-05L06	ORIGINAL PAPER SIZE: A1
SHEET NO.: 6 OF 8	REVISION:

NOTES AND SPECIFICATIONS

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- 9 THE CONSULTANT REMAINS RESPONSIBLE TO ENSURE THAT ALL THE GUIDELINES, STANDARD DRAWINGS, STANDARDS AND SPECIFICATIONS OF THE TRANSPORT DEPARTMENT HAVE BEEN MET AND ARE COMPLIED WITH.
- 10 FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.

LEGEND:

STORMWATER:

NEW PROPOSED PIPE:

EXISTING PIPE:

NEW PROPOSED MANHOLE:

PROPOSED GRID INLET:

SEWER:

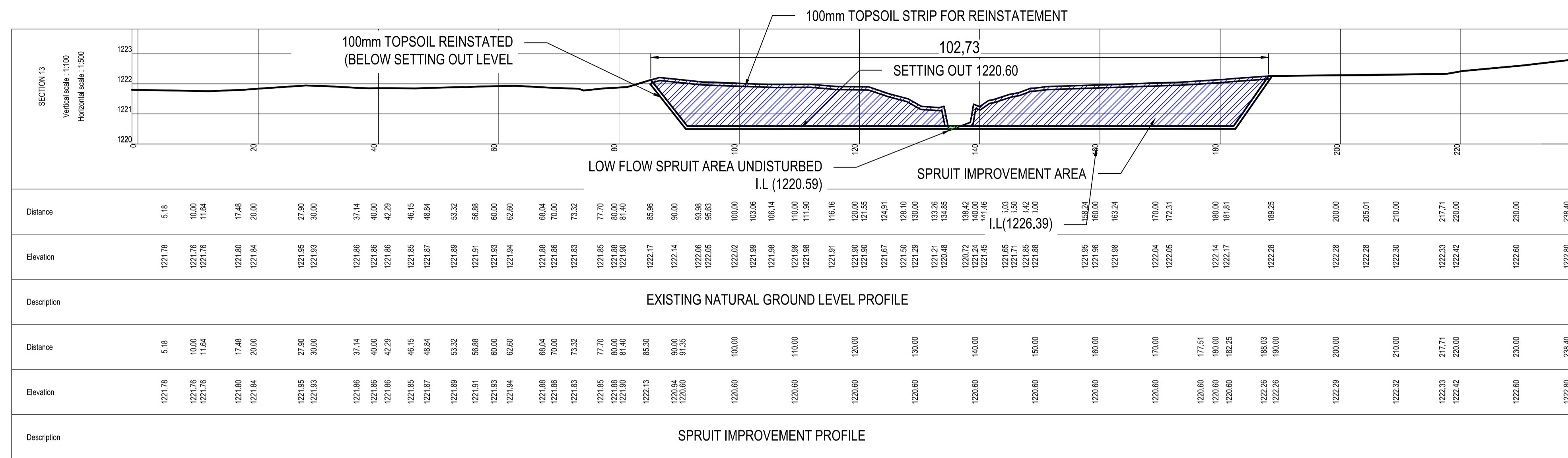
NEW PROPOSED PIPE:

ABBREVIATIONS:

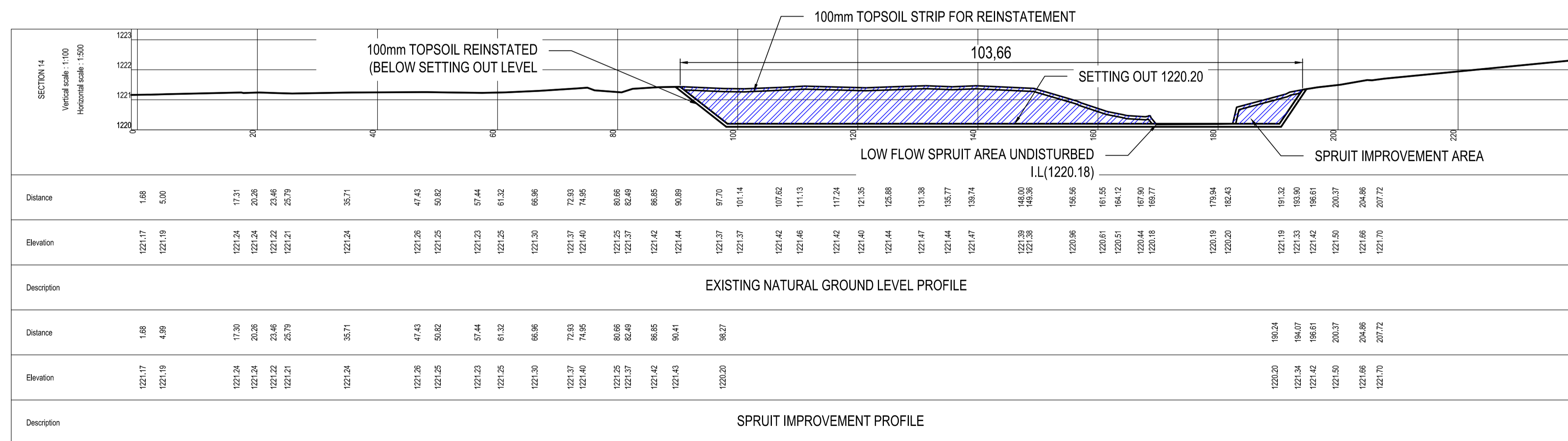
1. 450ø uPVC/120m
 LENGTH OF PIPE
 PIPE MATERIAL
 NOMINAL DIAMETER OF PIPE

Q 1:100 = 119m³/s
V 1:100 = 1.44m/s

Q 1:50 = 100m³/s
V 1:50 = 1.38m/s



CROSS SECTION 13
SCALE 1:500
REFER TO DRAWING
1063K-01U01



CROSS SECTION 14
SCALE 1:500
REFER TO DRAWING
1063K-01U01

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.
A	JUNE 2018		ISSUED FOR APPROVAL	
B	AUG 2018		ISSUED FOR APPROVAL	

DESIGNED: M. RAMONGANE	DRAWN: M. RAMONGANE
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____
DESIGN CHECKED BY: F.J. VAN RENSBURG	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____

PROJECT STATUS			
<input type="radio"/> CONCEPT DRAWING	<input checked="" type="radio"/> TENDER DRAWING	<input type="radio"/> APPROVED CONTRACTOR DRAWING	<input type="radio"/> AS BUILT DRAWING

PROJECT ENGINEER (CONSULTANT)	
F.J. VAN RENSBURG	2017 70172
INITIALS AND SURNAME	SIGNATURE AND P. No. DATE
INSPECTOR OF WORKS (CITY OF TSHWANE)	
INITIALS AND SURNAME	SIGNATURE AND P. No. DATE

CONSULTANT DETAIL

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CITY OF TSHWANE
ROADS AND TRANSPORT DEPARTMENT

Ms. Nava Pillay
Acting STRATEGIC EXECUTIVE DIRECTOR
P.O. BOX 1409
PRETORIA 0001

Ms. L. V. Kegakile-Piki
EXECUTIVE DIRECTOR
P.O. BOX 1409
PRETORIA 0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR
Ms. L. V. Kegakile-Piki

SIGNATURE: _____ DATE: _____

LOCATION OF PROJECT:

MONTANA SPRUIT CHANNEL IMPROVEMENT: PHASE 1

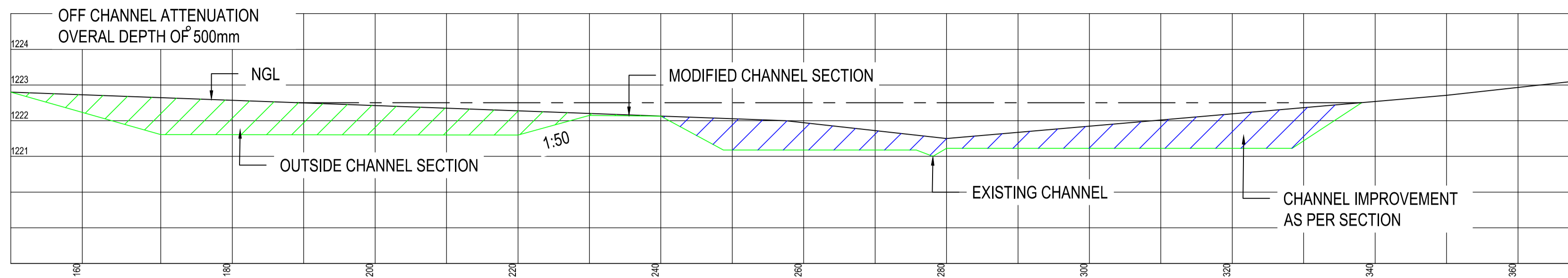
DESCRIPTION OF PROJECT:

CHANNEL IMPROVEMENT SECTIONS

CONTRACT No.: RTD01-2016/2017-TIDC18	PROJECT No.: 1063K
DATE: AUG 2018	SCALE: 1:500
DRAWING NO.: 1063K-05L07	ORIGINAL PAPER SIZE: A1
SHEET NO.: 7 OF 8	REVISION:

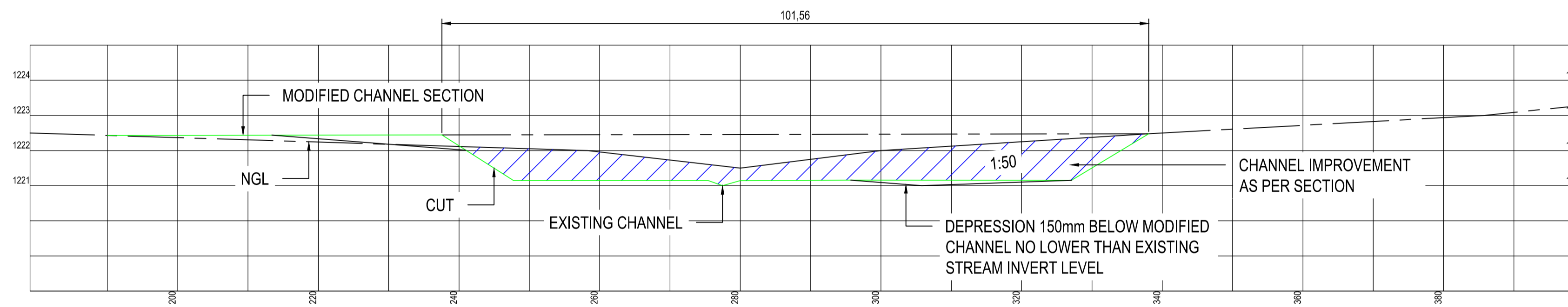
Q 1:100 = 119m³/s
V 1:100 = 1.15m/s

Q 1:50 = 100m³/s
V 1:50 = 1.10m/s



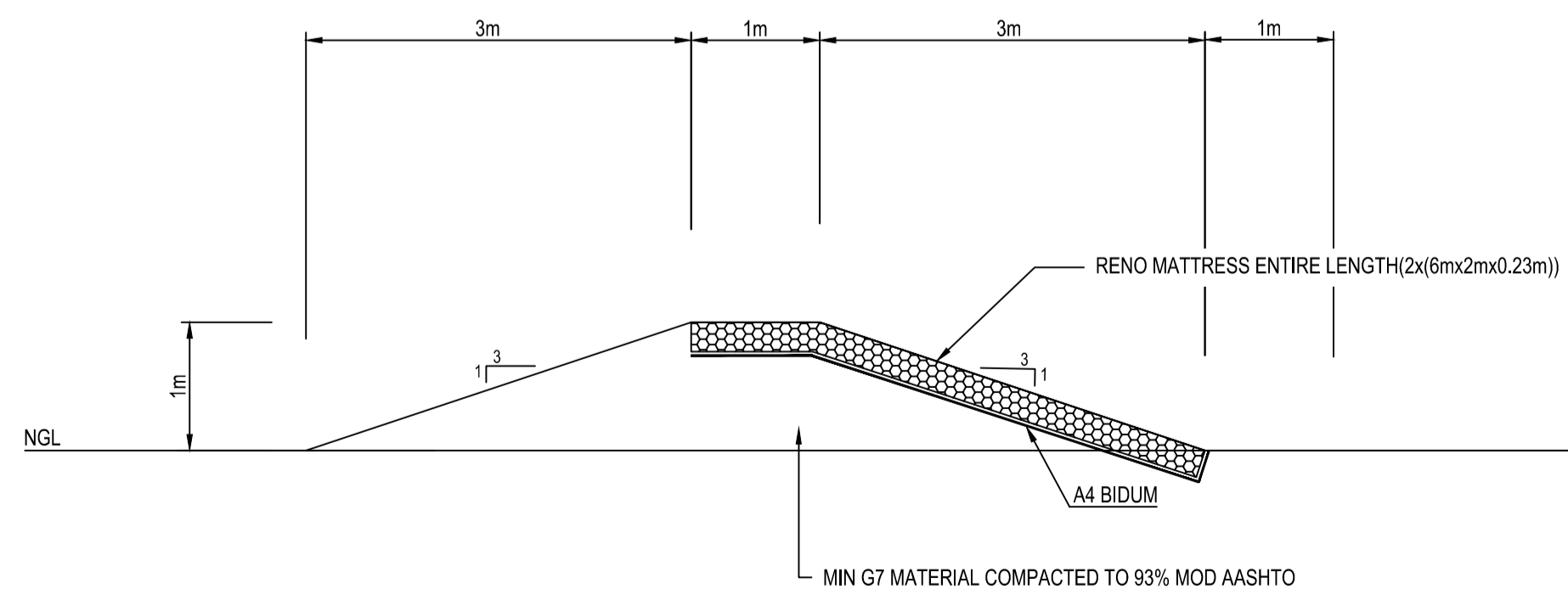
NOTE:
 * SHALLOW ATTENUATION OUTSIDE WIDENED CHANNEL MAX 500mm DEPTH & 1:20 SLOPE.

TYPICAL SECTION
 SCALE: HOR 1:1000 - VERT 1:100
 DETAIL 2: OUTSIDE CHANNEL ATTENUATION

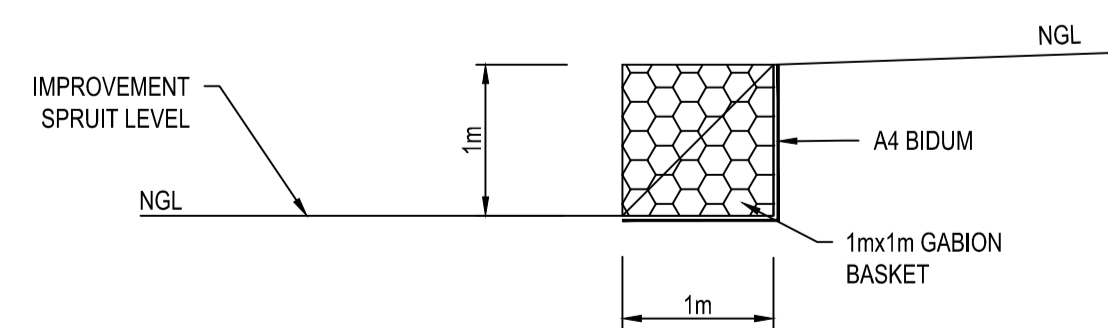


NOTE:
 * SHALLOW ATTENUATION WITHIN WIDENED CHANNEL MAX 300mm DEPTH & 1:50 SLOPE.

TYPICAL SECTION
 SCALE: HOR 1:1000 - VERT 1:100
 DETAIL 1: IN CHANNEL ATTENUATION



STORMWATER BERM DETAIL



GABION BASKET DETAIL

NOTES AND SPECIFICATIONS

GENERAL

- 1 ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SABS REQUIREMENTS.
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- 3 DO NOT SCALE FROM THESE DRAWINGS.
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- 10 FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.

LEGEND:

- STORMWATER:
- NEW PROPOSED PIPE:
 - EXISTING PIPE:
 - NEW PROPOSED MANHOLE:
 - PROPOSED GRID INLET:
- SEWER:
- NEW PROPOSED PIPE:

ABBREVIATIONS:

1. 450ø / uPVC / 120m
 LENGTH OF PIPE
 PIPE MATERIAL
 NOMINAL DIAMETER OF PIPE

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.
A	JUNE 2018		ISSUED FOR APPROVAL	
B	AUG 2018		ISSUED FOR APPROVAL	

DESIGNED: M. RAMONGANE	DRAWN: M. RAMONGANE
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____
DESIGN CHECKED BY: F.J. VAN RENSBURG	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT
SIGNATURE: _____ DATE: _____	SIGNATURE: _____ DATE: _____

PROJECT STATUS			
<input type="radio"/> CONCEPT DRAWING	<input checked="" type="radio"/> TENDER DRAWING	<input type="radio"/> APPROVED CONSTRUCTION DRAWING	<input type="radio"/> AS BUILT DRAWING

PROJECT ENGINEER (CONSULTANT)	
F.J. VAN RENSBURG	2017 70172
INITIALS AND SURNAME	SIGNATURE AND P. No. DATE
INSPECTOR OF WORKS (CITY OF TSHWANE)	
INITIALS AND SURNAME	SIGNATURE AND P. No. DATE

CONSULTANT DETAIL

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CITY OF TSHWANE
 ROADS AND TRANSPORT DEPARTMENT

Mr Nava Pillay
 Acting STRATEGIC EXECUTIVE DIRECTOR
 P.O. BOX 1409
 PRETORIA 0001

Ms. L. V. Kegakilwe-Piki
 EXECUTIVE DIRECTOR
 P.O. BOX 1409
 PRETORIA 0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR
 Ms. L. V. Kegakilwe-Piki

SIGNATURE: _____ DATE: _____

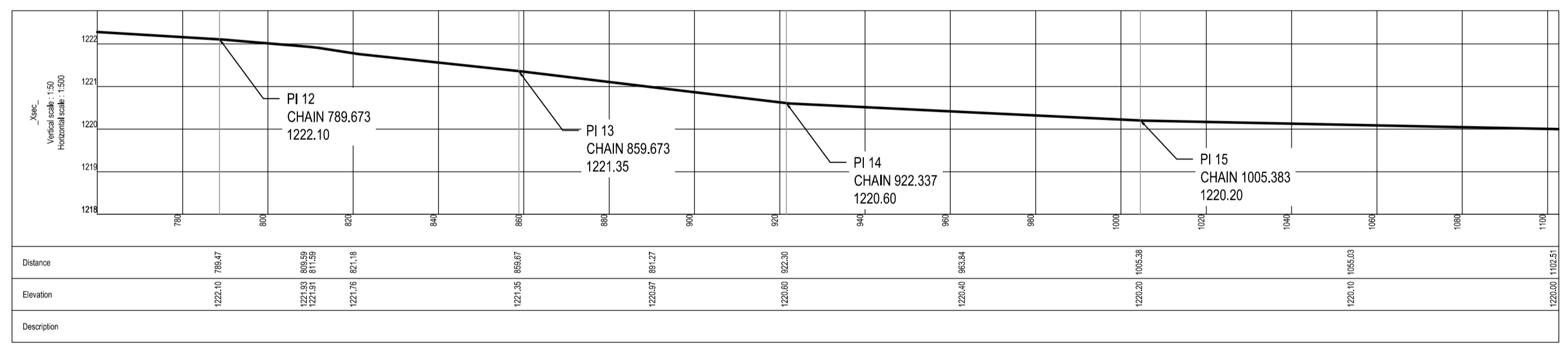
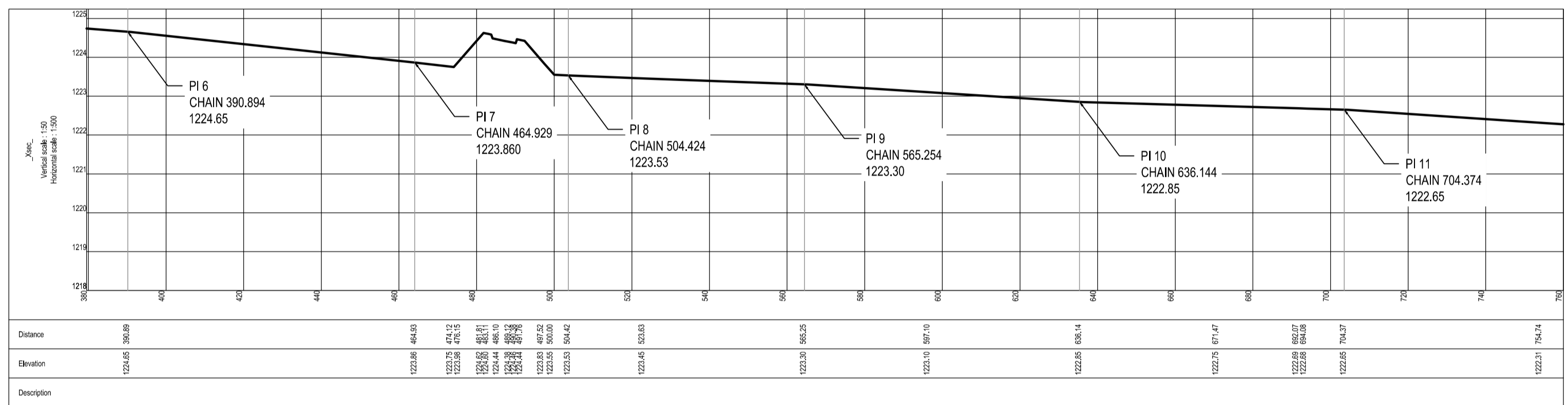
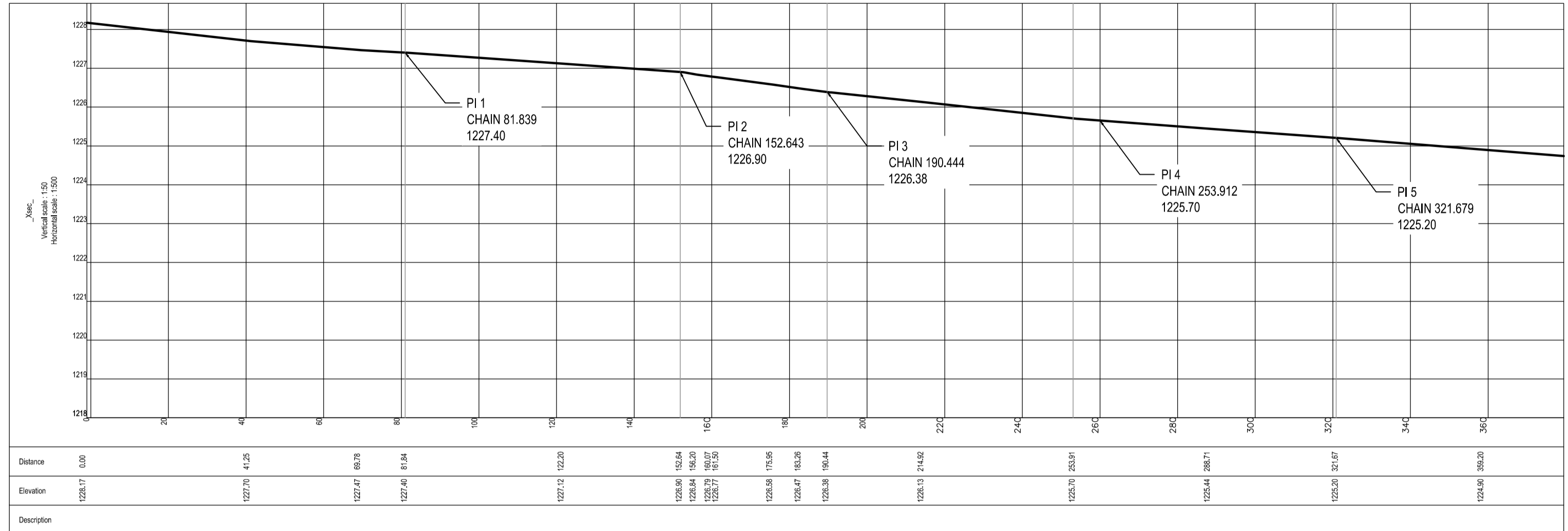
LOCATION OF PROJECT:

MONTANA SPRUIT CHANNEL IMPROVEMENT: PHASE 1

DESCRIPTION OF PROJECT

CHANNEL IMPROVEMENT SECTIONS

CONTRACT No.: RTD01-2016/2017-TIDC18	PROJECT No.: 1063K
DATE: AUG 2018	SCALE: 1:500
DRAWING NO.: 1063K-05L08	ORIGINAL PAPER SIZE: A1
SHEET NO.: 8 OF 8	REVISION:



TYPICAL LONGSECTION
SCALE: HOR 1:500 - VERT 1:50
STREAM LONGSECTION
SCALE: 1:1000

NOTES AND SPECIFICATIONS

- GENERAL
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 - 10 FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.

LEGEND:

STORMWATER:

NEW PROPOSED PIPE:

EXISTING PIPE:

NEW PROPOSED MANHOLE:

PROPOSED GRID INLET:

SEWER:

NEW PROPOSED PIPE:

ABBREVIATIONS:

1. 450ø/uPVC/120m
LENGTH OF PIPE
PIPE MATERIAL
NOMINAL DIAMETER OF PIPE

AMENDMENTS				
NR	DATE	APPROVED	DESCRIPTION	PAR.
A	JUNE 2018		ISSUED FOR APPROVAL	
B	AUG 2018		ISSUED FOR APPROVAL	

DESIGNED: M. RAMONGANE	DRAWN: M. RAMONGANE
CHECKED BY: F. J. VAN RENSBURG	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT

PROJECT STATUS

CONCEPT DRAWING
 TENDER DRAWING
 APPROVED CONSTRUCTION DRAWING
 AS BUILT DRAWING

PROJECT ENGINEER (CONSULTANT)	
F. J. VAN RENSBURG	2017 70172
INITIALS AND SURNAME	SIGNATURE AND P. No. DATE
INSPECTOR OF WORKS (CITY OF TSHWANE)	
INITIALS AND SURNAME	SIGNATURE AND P. No. DATE

CONSULTANT DETAIL

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CITY OF TSHWANE
ROADS AND TRANSPORT DEPARTMENT

Mr Nava Pillay
Acting STRATEGIC EXECUTIVE DIRECTOR

Ms. L. V. Kegakwe-Piki
EXECUTIVE DIRECTOR

P.O. BOX 1409
PRETORIA 0001

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DRAWING APPROVED BY EXECUTIVE DIRECTOR
Ms. L. V. Kegakwe-Piki

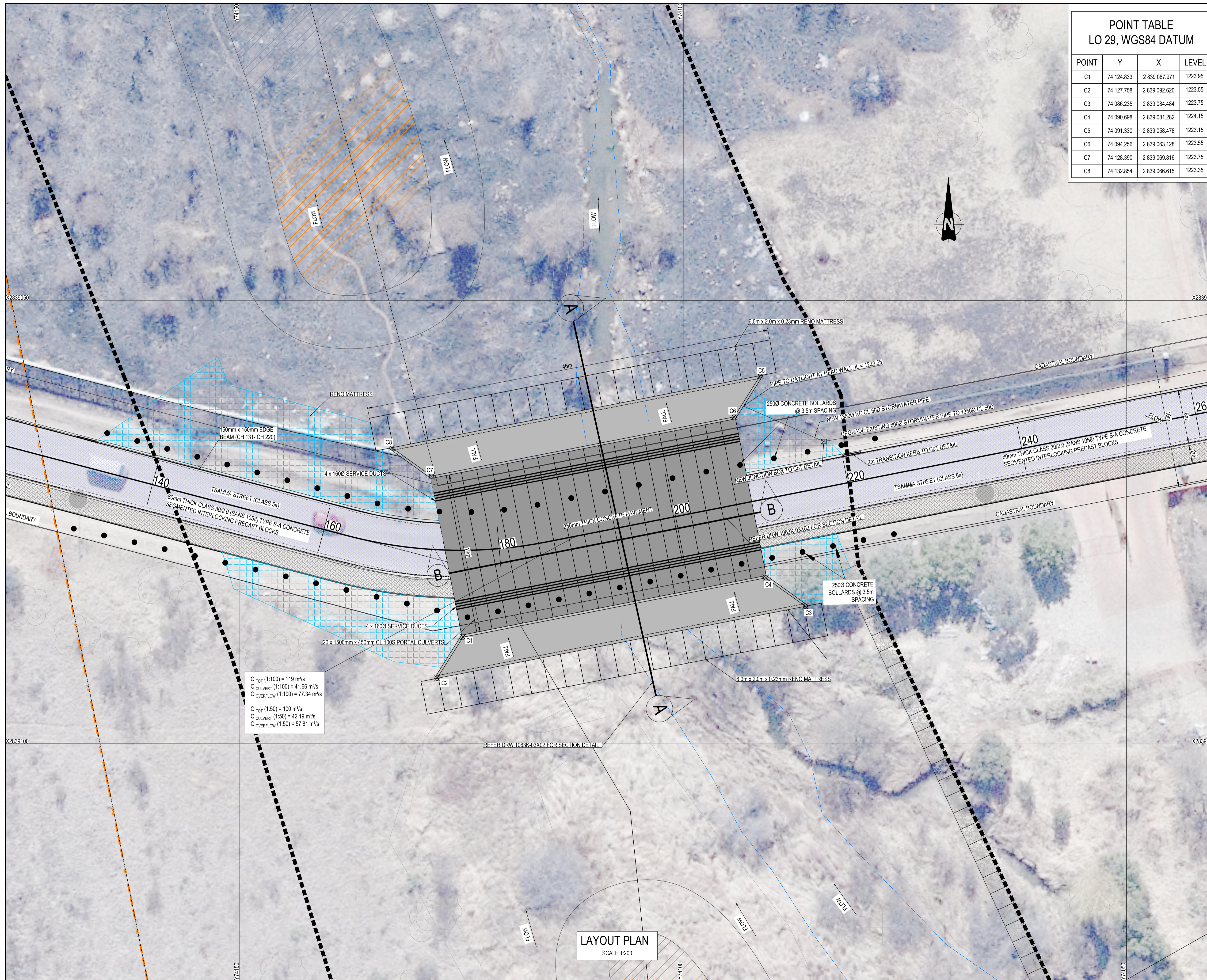
LOCATION OF PROJECT:

MONTANA SPRUIT CHANNEL IMPROVEMENT: PHASE 1

DESCRIPTION OF PROJECT:

CHANNEL IMPROVEMENT STREAM LONGSECTIONS

CONTRACT No:	PROJECT No:	
RTD01-2016/2017-TIDC18	1063K	
DATE:	SCALE:	ORIGINAL PAPER SIZE:
AUG 2018	1:1000	A1
DRAWING NO:	SHEET NO:	REVISION
1063K-05L09	1 of 1	



POINT TABLE LO 29, WGS84 DATUM

POINT	Y	X	LEVEL
C1	74 124.833	2 839 087.971	1223.95
C2	74 127.758	2 839 092.620	1223.55
C3	74 086.235	2 839 084.484	1223.75
C4	74 090.698	2 839 081.282	1224.15
C5	74 091.330	2 839 058.478	1223.15
C6	74 094.256	2 839 063.128	1223.55
C7	74 128.390	2 839 069.816	1223.75
C8	74 132.854	2 839 066.615	1223.35

- ### NOTES AND SPECIFICATIONS
- GENERAL**
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 - 10 FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.

- LEGEND:**
- STORMWATER:**
- NEW PROPOSED PIPE:
 - EXISTING PIPE:
 - NEW PROPOSED MANHOLE:
 - PROPOSED GRID INLET:
 - RENO MATTRESS:
 - 180mm CONCRETE ROAD:
 - 60mm OBLONG BLOCKS:
 - 80mm INTERLOCKING BLOCKS:
 - JUNCTION BOX:

AMENDMENTS

NR.	DATE	APPROVED	DESCRIPTION	PAR.
A	JUNE 2018		ISSUED FOR APPROVAL	
B	AUG 2018		ISSUED FOR APPROVAL	

DESIGNED: M. RAMONGANE	DRAWN: M. RAMONGANE
DESIGN CHECKED BY: F.J. VAN RENSBURG	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT
SIGNATURE: _____	DATE: _____

PROJECT STATUS

CONCEPT DRAWING
 TENDER DRAWING
 APPROVED CONSTRUCTION DRAWING
 AS BUILT DRAWING

PROJECT ENGINEER (CONSULTANT): F.J. VAN RENSBURG, 2017 70172

INITIALS AND SURNAME: _____ SIGNATURE AND P. No.: _____ DATE: _____

INSPECTOR OF WORKS (CITY OF TSHWANE): _____ SIGNATURE AND P. No.: _____ DATE: _____

CONSULTANT DETAIL

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P.O. BOX 1409, PRETORIA 0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR
Ms. L. V. Kegakwe-Pili

LOCATION OF PROJECT:
MONTANA SPRUIT CHANNEL IMPROVEMENT: PHASE 1

DESCRIPTION OF PROJECT:
CULVERT CROSSING LAYOUT PLAN

CONTRACT No.: RTD01-2016/2017-TIDC18	PROJECT No.: 1063K	
DATE: AUG 2018	SCALE: 1:200	ORIGINAL PAPER SIZE: A1
DRAWING No.: 1063K-05U01	SHEET No.: 1	REVISION:

Q _{TOT} (1:100) = 119 m ³ /s
Q _{CULVERT} (1:100) = 41.66 m ³ /s
Q _{OVERFLOW} (1:100) = 77.34 m ³ /s
Q _{TOT} (1:50) = 100 m ³ /s
Q _{CULVERT} (1:50) = 42.19 m ³ /s
Q _{OVERFLOW} (1:50) = 57.81 m ³ /s

LAYOUT PLAN
SCALE 1:200

