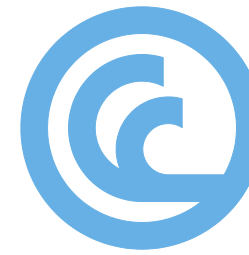

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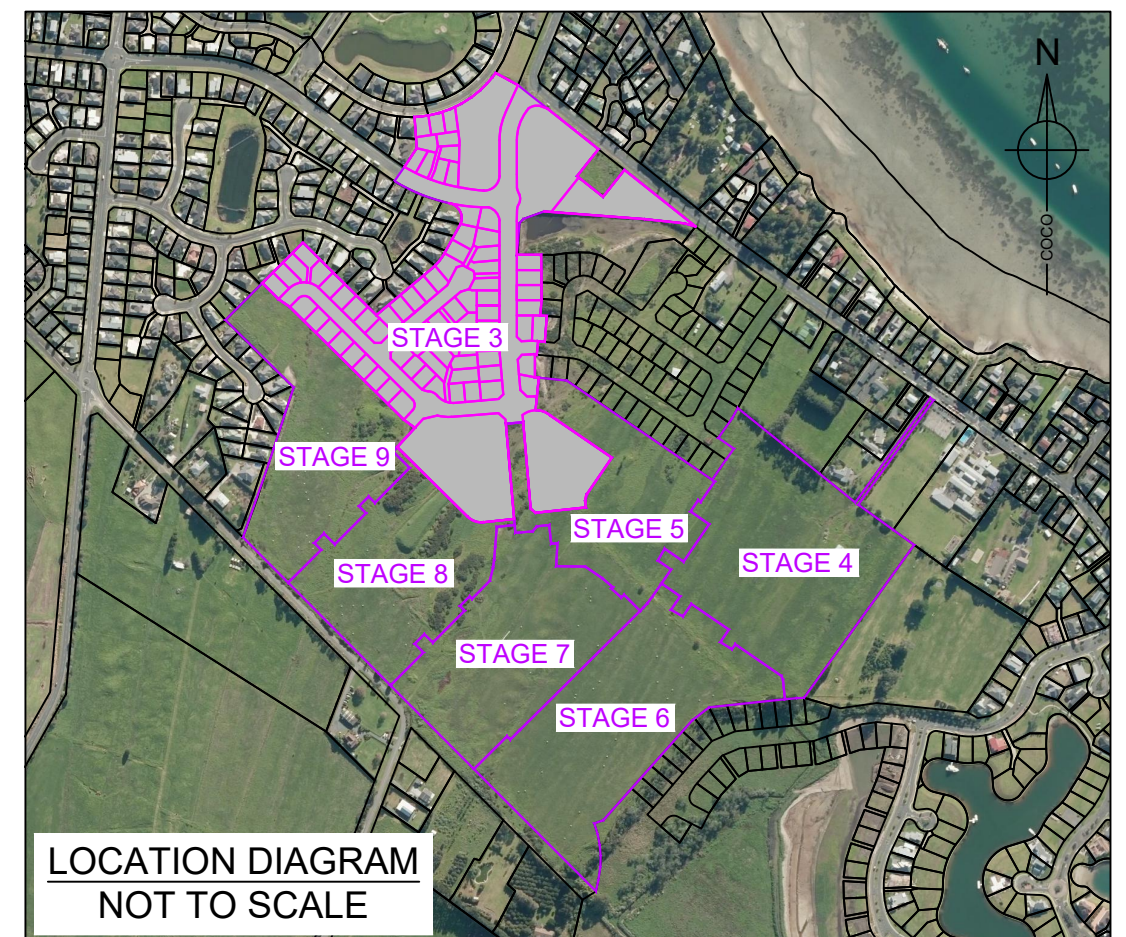
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AS BUILT PLANS

**FOR WFH PROPERTIES LTD,
THE LANDING, STAGE 3,
ONE TREE POINT**

WDC REF: SD1800110

JOB NO:14333-003
DATE: 26 JUNE 2020




DWG NUMBER	REV.
AB000	A

SCHEDULE OF DRAWINGS		
SHEET #	TITLE	REV
AB000 - GENERAL		
AB000	COVER SHEET	A
AB001	DRAWING INDEX	A
AB500 - ROADING		
AB500	ROADING LAYOUT OVERVIEW PLAN	B
AB501	ROADING LAYOUT - SHEET 1	B
AB502	ROADING LAYOUT - SHEET 2	B
AB503	ROADING LAYOUT - SHEET 3	B
AB504	ROADING LAYOUT - SHEET 4	B
AB505	ROADING LAYOUT - SHEET 5	B
AB506	ROADING LAYOUT - SHEET 6	B
AB507	ROADING LAYOUT - SHEET 7	B
AB508	ROADING LAYOUT - SHEET 8	B
AB509	ROADING LAYOUT - SHEET 9	A
AB510	ROADING TYPICAL SECTIONS - SHEET 1	A
AB511	ROADING TYPICAL SECTIONS - SHEET 2	A
AB512	ROADING TYPICAL SECTIONS - SHEET 3	A
AB513	COMBINED SERVICE TRENCH DETAILS	A
AB514	TYPICAL ROUNDABOUT & PAVEMENT DETAILS	A
AB515	TYPICAL PAVEMENT DETAILS	A
AB516	TYPICAL KEYSTONE RETAINING WALL DETAILS	A
AB550	LINEMARKING & SIGNPOSTING PLAN - ROUNDABOUT 2	A
AB551	LINEMARKING & SIGNPOSTING PLAN - ROUNDABOUT 1	A
AB552	LINEMARKING & SIGNPOSTING PLAN - ROUNDABOUT 3	A
AB553	LINEMARKING & SIGNPOSTING PLAN - ROUNDABOUT 11	A
AB554	LINEMARKING & SIGNPOSTING PLAN - RDS 4 & 18 INTER	A
AB560	VEHICLE CROSSING - JOAL 711 & 701	A
AB561	VEHICLE CROSSING - JOAL 702, 703 & 716 AND LOT 117	A
AB600 - DRAINAGE		
AB600	STORMWATER LAYOUT OVERVIEW PLAN	B
AB601	STORMWATER LAYOUT - SHEET 1	B
AB602	STORMWATER LAYOUT - SHEET 2	B
AB603	STORMWATER LAYOUT - SHEET 3	B
AB604	STORMWATER LAYOUT - SHEET 4	B
AB605	STORMWATER LAYOUT - SHEET 5	B
AB606	STORMWATER LAYOUT - SHEET 6	B
AB607	STORMWATER LAYOUT - SHEET 7	B
AB610	SANITARY SEWER - OVERVIEW PLAN	B
AB611	SANITARY SEWER - SHEET 1	B
AB612	SANITARY SEWER - SHEET 2	B
AB613	SANITARY SEWER - SHEET 3	B
AB614	SANITARY SEWER - SHEET 4	B
AB615	SANITARY SEWER - SHEET 5	B
AB616	SANITARY SEWER - SHEET 6	B
AB617	SANITARY SEWER - SHEET 7	B
AB618	SANITARY SEWER - SHEET 8	B

AB630	STORMWATER LONGSECTIONS - SHEET 1	A
AB631	STORMWATER LONGSECTIONS - SHEET 2	A
AB632	STORMWATER LONGSECTIONS - SHEET 3	A
AB633	STORMWATER LONGSECTIONS - SHEET 4	A
AB634	STORMWATER LONGSECTIONS - SHEET 5	A
AB635	STORMWATER LONGSECTIONS - SHEET 6	A
AB636	STORMWATER LONGSECTIONS - SHEET 7	A
AB637	STORMWATER LONGSECTIONS - SHEET 8	A
AB638	STORMWATER LONGSECTIONS - SHEET 9	A
AB639	STORMWATER LONGSECTIONS - SHEET 10	A
AB640	STORMWATER LONGSECTIONS - SHEET 11	A
AB641	STORMWATER LONGSECTIONS - SHEET 12	A
AB642	STORMWATER LONGSECTIONS - SHEET 13	A
AB643	STORMWATER LONGSECTIONS - SHEET 14	A
AB644	STORMWATER LONGSECTIONS - SHEET 15	A
AB645	STORMWATER LONGSECTIONS - SHEET 16	A
AB646	STORMWATER LONGSECTIONS - SHEET 17	A
AB647	STORMWATER LONGSECTIONS - SHEET 18	A
AB648	STORMWATER LONGSECTIONS - SHEET 19	A
AB650	SEWER LONGSECTIONS - LINE 1	A
AB651	SEWER LONGSECTIONS - LINE 1	A
AB652	SEWER LONGSECTIONS - LINE 1	A
AB653	SEWER LONGSECTIONS - LINES 2 & 2B	A
AB654	SEWER LONGSECTIONS - LINES 3, 5 & 6	A
AB655	SEWER LONGSECTION - LINES 8 & 9	A
AB670	TYPICAL MANHOLE DETAIL & TYPICAL SUMP DETAIL	A
AB671	TYPICAL INLET AND OUTLET DETAILS	A
AB672	TYPICAL STORMWATER & SEWER CONNECTION DETAIL	A
AB673	TYPICAL TRENCH & HEADWALL DETAILS	A
AB674	TYPICAL HYDRANT & VALVE DETAILS	A
AB675	SANITARY SEWER CONNECTION INTO MANHOLE DETAIL	A
AB676	BOUNDARY KIT WITH EXTENDED STUBS	A
AB677	FLUSHING POINT DETAIL	A
AB678	2010IP SIMPLEX 800 X 2100IP	A
AB679	TYPICAL BRANCH ARRANGEMENT	A
AB700 - POTABLE WATER		
AB700	POTABLE WATER OVERVIEW PLAN	B
AB701	POTABLE WATER - SHEET 1	B
AB702	POTABLE WATER - SHEET 2	B
AB703	POTABLE WATER - SHEET 3	B
AB704	POTABLE WATER - SHEET 4	B
AB705	POTABLE WATER - SHEET 5	B
AB706	POTABLE WATER - SHEET 6	B
AB707	POTABLE WATER - SHEET 7	B
AB708	POTABLE WATER - SHEET 8	B
AB709	POTABLE WATER - SHEET 9	B
AB710	POTABLE WATER - SHEET 10	B
AB711	POTABLE WATER - SHEET 11	B
AB712	POTABLE WATER - SHEET 12	B

AB713	POTABLE WATER - SHEET 13	B
AB720	POTABLE WATER LONGSECTIONS W1 & W2	A
AB721	POTABLE WATER LONGSECTIONS W6	A
AB722	POTABLE WATER LONGSECTIONS W7, W9, W10 & W12	A
AB730 - AB731	POTABLE WATER TYPICAL DETAILS	A
AB800 - ASSET REGISTER		
AB800	STORMWATER ASSET REGISTER - SHEET 1	A
AB801	STORMWATER ASSET REGISTER - SHEET 2	A
AB802	STORMWATER ASSET REGISTER - SHEET 3	A
AB803	STORMWATER ASSET REGISTER - SHEET 4	A
AB804	STORMWATER ASSET REGISTER - SHEET 5	A
AB805	STORMWATER ASSET REGISTER - SHEET 6	A
AB806	STORMWATER ASSET REGISTER - SHEET 7	A
AB807	STORMWATER ASSET REGISTER - SHEET 8	A
AB808	STORMWATER ASSET REGISTER - SHEET 9	A
AB809	STORMWATER ASSET REGISTER - SHEET 10	A
AB810	STORMWATER ASSET REGISTER - SHEET 11	A
AB811	SEWER ASSET REGISTER - SHEET 1	A
AB812	SEWER ASSET REGISTER - SHEET 2	A
AB813	SEWER ASSET REGISTER - SHEET 3	A
AB814	WATER ASSET REGISTER - SHEET 1	A
AB815	WATER ASSET REGISTER - SHEET 2	A
AB816	WATER ASSET REGISTER - SHEET 3	A
AB817	WATER ASSET REGISTER - SHEET 4	A



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B

A

1ST ISSUE

26-06-20

KHGM

REV. REVISION DETAILS

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

DRAWING INDEX

DATE CREATED
26-06-2020

CCL REF NO
14333-003

DWG NUMBER

DRAWN
K HANSARD

SCALE
NTS @ A3

AB001


DESIGNED
-

STATUS
AS BUILTS

REVISION

APPROVED
G McGREGOR

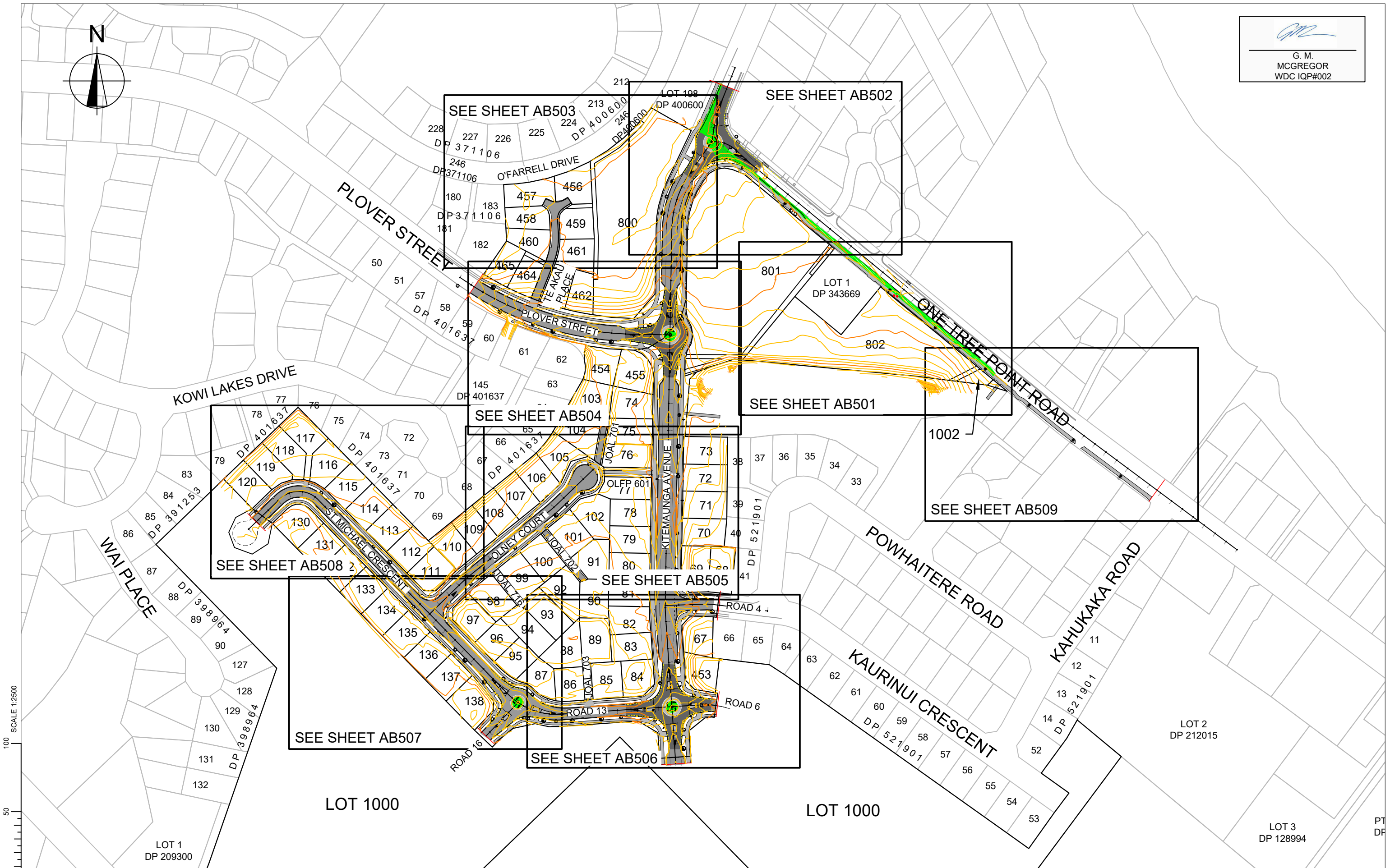
A



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WDC IQP#002



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B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-2020 KH GM
REV.	REVISION DETAILS	DRAWN APP.

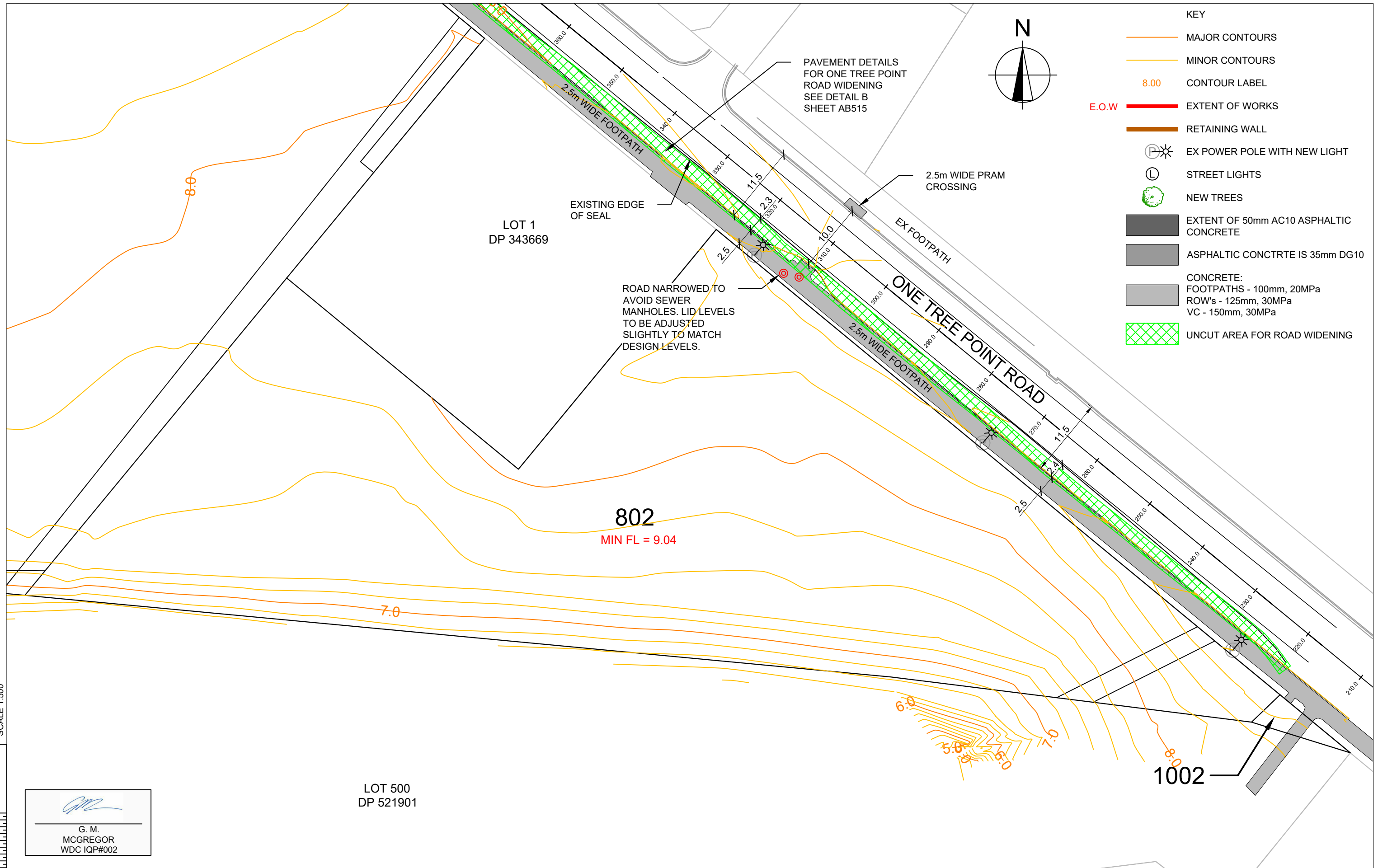
PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
ROADING LAYOUT - OVERVIEW

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:2500 @ A3		STATUS AS BUILTS
DWG NUMBER AB500			REVISION A

DATE PLOTTED: Thursday, 25 June 2020 11:25:25 a.m. FILE PATH: C:\Users\Karren\AppData\Local\Temp\BricsCAD\bp_1\14333-003-AB500-Road Plan.dwg

DO NOT REPRODUCE WITHOUT WRITTEN AUTHORITY



- KEY
- MAJOR CONTOURS
 - MINOR CONTOURS
 - 8.00 CONTOUR LABEL
 - E.O.W. EXTENT OF WORKS
 - RETAINING WALL
 - EX POWER POLE WITH NEW LIGHT
 - STREET LIGHTS
 - NEW TREES
 - EXTENT OF 50mm AC10 ASPHALTIC CONCRETE
 - ASPHALTIC CONCTRTE IS 35mm DG10
 - CONCRETE:
FOOTPATHS - 100mm, 20MPa
ROW's - 125mm, 30MPa
VC - 150mm, 30MPa
 - UNCUT AREA FOR ROAD WIDENING

SCALE 1:500

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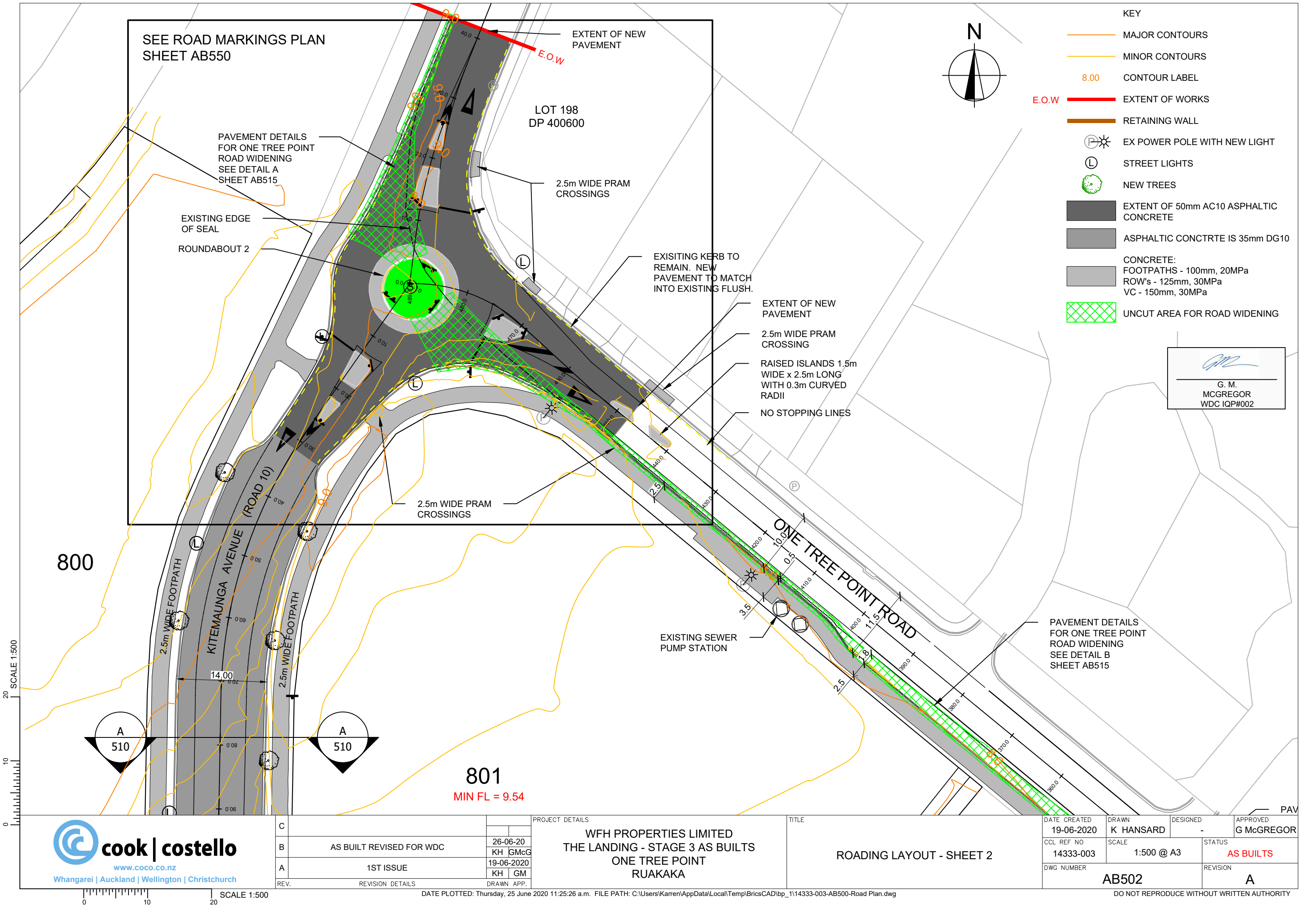
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B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
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REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
ROADING LAYOUT - SHEET 1

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB501			REVISION A



- KEY
- MAJOR CONTOURS
 - MINOR CONTOURS
 - 8.00 CONTOUR LABEL
 - E.O.W EXTENT OF WORKS
 - RETAINING WALL
 - EX POWER POLE WITH NEW LIGHT
 - STREET LIGHTS
 - NEW TREES
 - EXTENT OF 50mm AC10 ASPHALTIC CONCRETE
 - ASPHALTIC CONCTRTE IS 35mm DG10
 - CONCRETE:
FOOTPATHS - 100mm, 20MPa
ROW's - 125mm, 30MPa
VC - 150mm, 30MPa
 - UNCUT AREA FOR ROAD WIDENING

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C			
B	AS BUILT REVISED FOR WDC	26-06-20	KH GMcG
A	1ST ISSUE	19-06-2020	KH GM
REV.	REVISION DETAILS	DRAWN	APP.

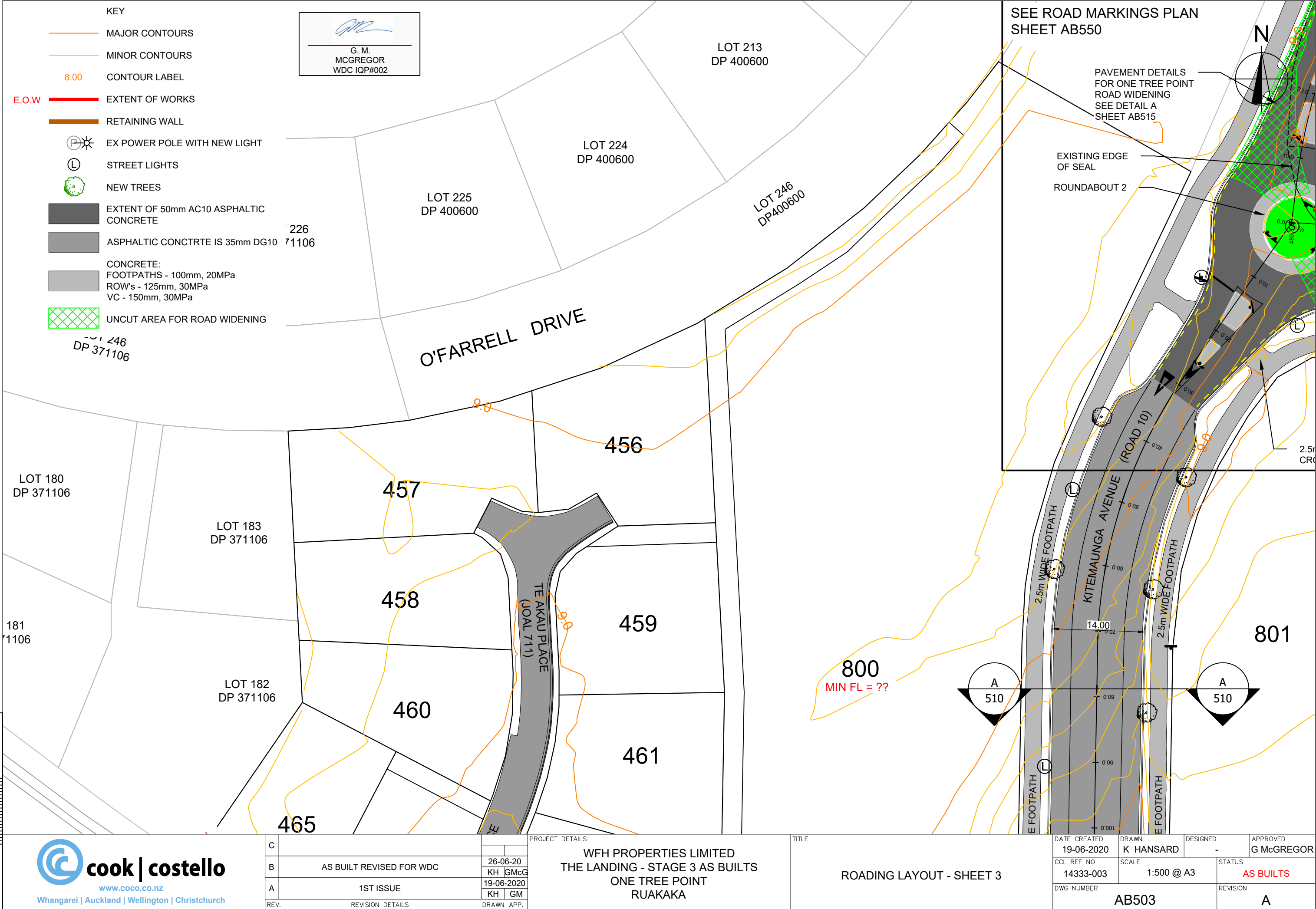
PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

ROADING LAYOUT - SHEET 2

DATE CREATED	DRAWN	DESIGNED	APPROVED
19-06-2020	K HANSARD	-	G McGREGOR
CCL REF NO	SCALE	STATUS	
14333-003	1:500 @ A3	AS BUILTS	
DWG NUMBER	REVISION		
AB502	A		

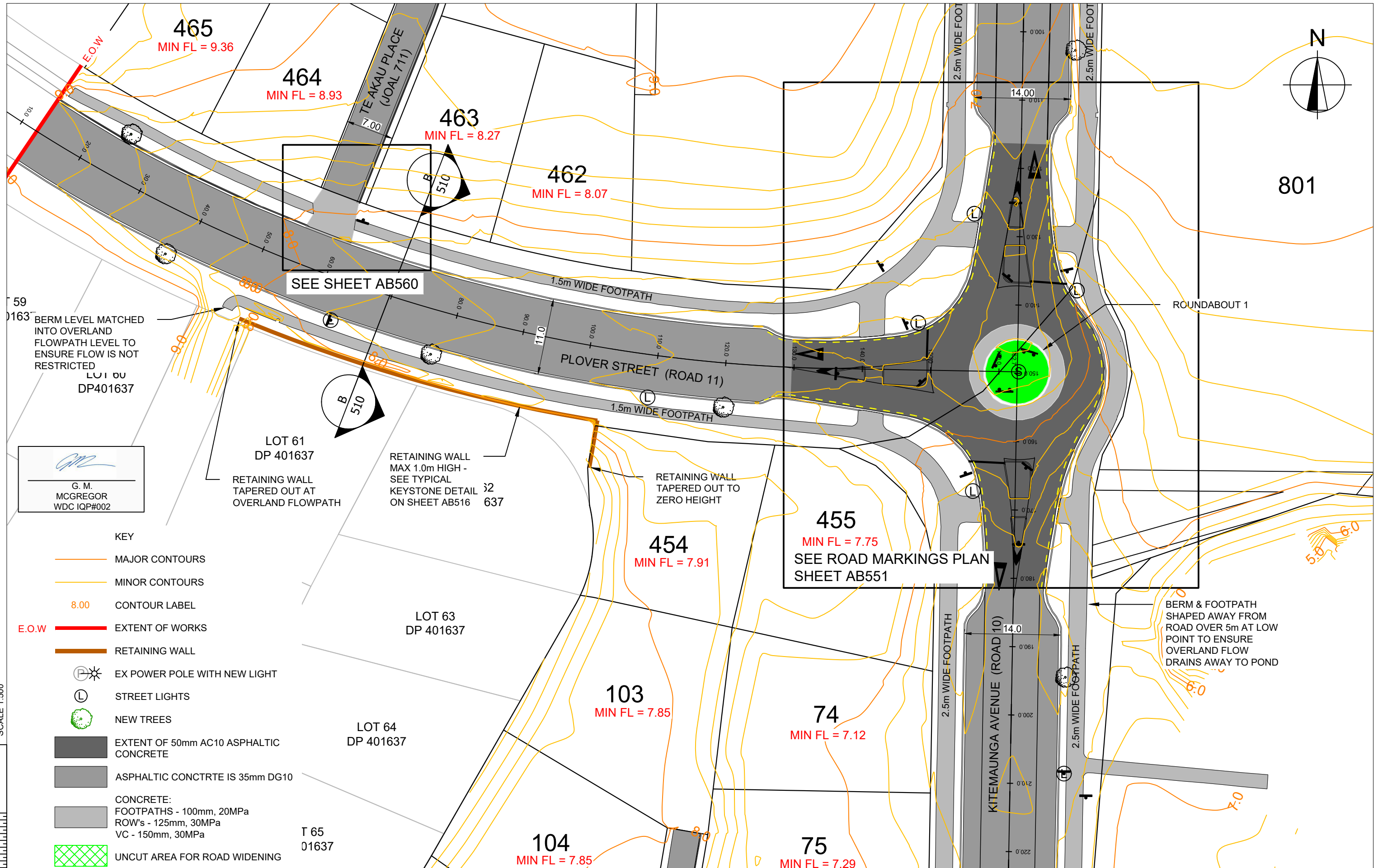


C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-2020 KH GM
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
ROADING LAYOUT - SHEET 3

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB503			REVISION A



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WDC IQP#002

- KEY
- MAJOR CONTOURS
 - MINOR CONTOURS
 - CONTOUR LABEL
 - E.O.W
 - EXTENT OF WORKS
 - RETAINING WALL
 - EX POWER POLE WITH NEW LIGHT
 - STREET LIGHTS
 - NEW TREES
 - EXTENT OF 50mm AC10 ASPHALTIC CONCRETE
 - ASPHALTIC CONCTRTE IS 35mm DG10
 - CONCRETE:
FOOTPATHS - 100mm, 20MPa
ROW's - 125mm, 30MPa
VC - 150mm, 30MPa
 - UNCUT AREA FOR ROAD WIDENING

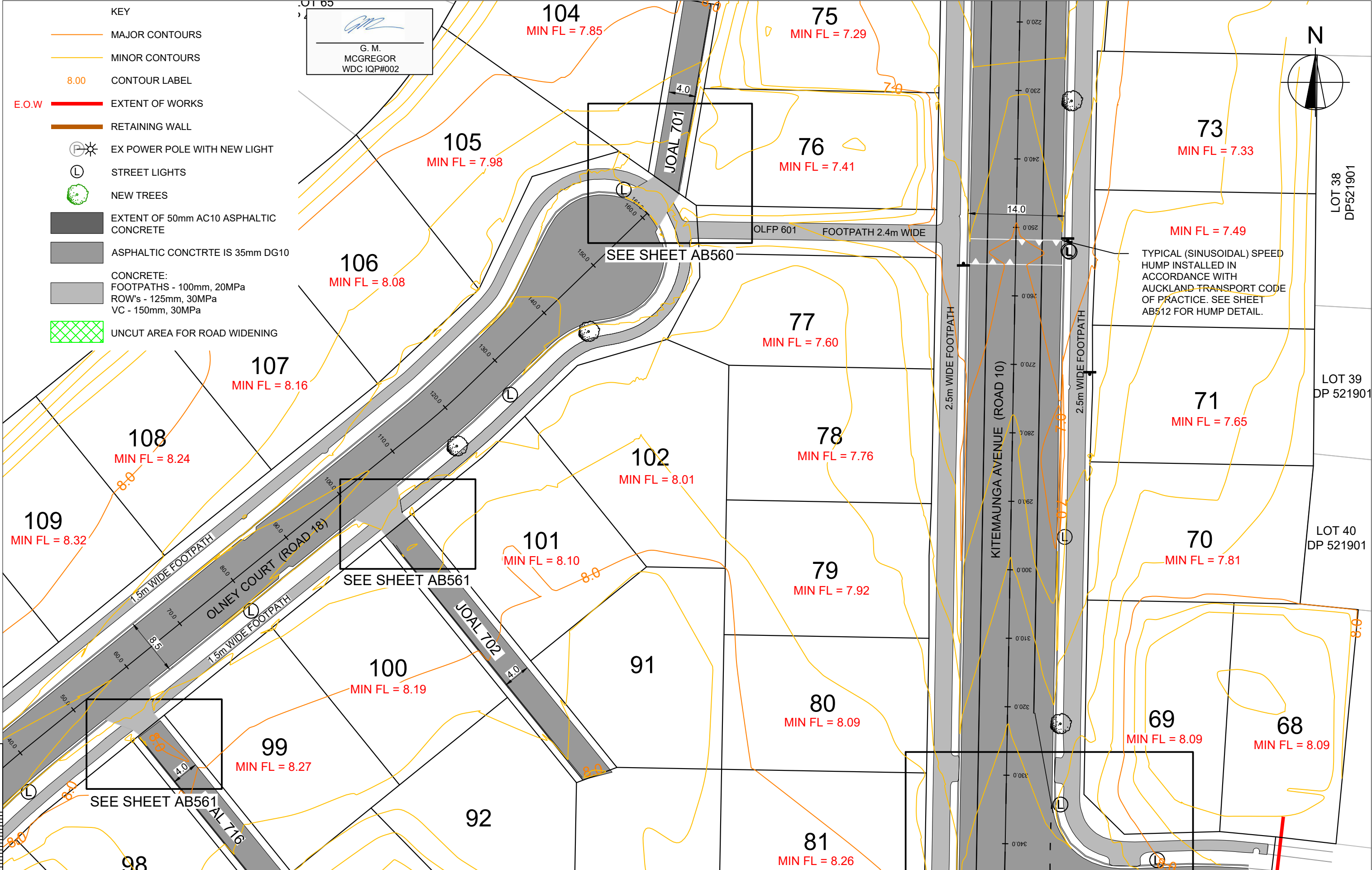
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B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-2020 KH GM
REV.	REVISION DETAILS	DRAWN APP.

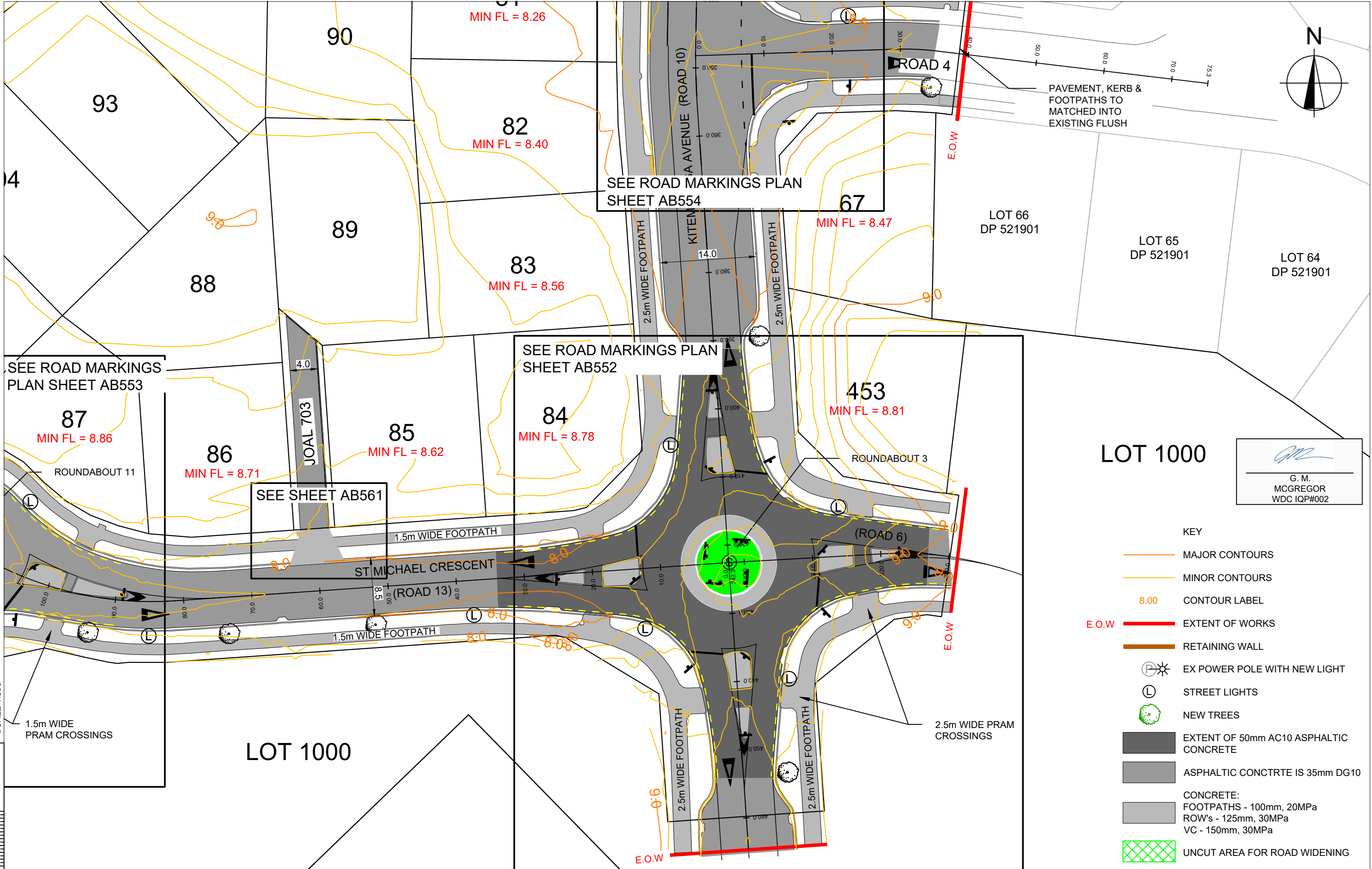
PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
ROADING LAYOUT - SHEET 4

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB504			REVISION A



<div> cook costello www.coco.co.nz Whangarei Auckland Wellington Christchurch</div>	C		PROJECT DETAILS		TITLE	DATE CREATED	DRAWN	DESIGNED	APPROVED
						19-06-2020	K HANSARD	-	G MCGREGOR
	B	AS BUILT REVISED FOR WDC	26-06-20	WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA		ROADING LAYOUT - SHEET 5	CCL REF NO	SCALE	STATUS
			KH GMcG				14333-003	1:500 @ A3	AS BUILTS
	A	1ST ISSUE	19-06-2020				DWG NUMBER	REVISION	
		KH GM	AB505	A					
REV.	REVISION DETAILS		DRAWN APP.						



LOT 1000

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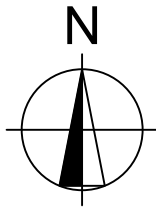
- KEY
- MAJOR CONTOURS
 - MINOR CONTOURS
 - CONTOUR LABEL
 - EXTENT OF WORKS
 - RETAINING WALL
 - EX POWER POLE WITH NEW LIGHT
 - STREET LIGHTS
 - NEW TREES
 - EXTENT OF 50mm AC10 ASPHALTIC CONCRETE
 - ASPHALTIC CONCTRTE IS 35mm DG10
 - CONCRETE:
FOOTPATHS - 100mm, 20MPa
ROW's - 125mm, 30MPa
VC - 150mm, 30MPa
 - UNCUT AREA FOR ROAD WIDENING

C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-2020 KH GM
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
ROADING LAYOUT - SHEET 6

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB506			REVISION A



133
MIN FL = 8.89

134
MIN FL = 8.80

135
MIN FL = 8.7
SEE ROAD MARKINGS PLAN
SHEET AB554

136
MIN FL = 8.96

137
MIN FL = 8.96

138
MIN FL = 8.94

98
MIN FL = 8.38

97
MIN FL = 9.05

96
MIN FL = 9.05

95
MIN FL = 8.91

SEE ROAD MARKINGS PLAN
SHEET AB553

87
MIN FL = 8.86

ROUNABOUT 11

1.5m WIDE
PRAM CROSSINGS

LOT 1000

KEY

- MAJOR CONTOURS
- MINOR CONTOURS
- CONTOUR LABEL
- EXTENT OF WORKS
- RETAINING WALL
- EX POWER POLE WITH NEW LIGHT
- STREET LIGHTS
- NEW TREES
- EXTENT OF 50mm AC10 ASPHALTIC CONCRETE
- ASPHALTIC CONCTRTE IS 35mm DG10
- CONCRETE:
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ROW's - 125mm, 30MPa
VC - 150mm, 30MPa
- UNCUT AREA FOR ROAD WIDENING

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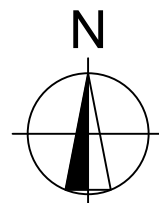


C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-2020 KH GM
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE
ROADING LAYOUT - SHEET 7

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB507			REVISION A



LOT 78
DP 401637

LOT 75
DP 401637

LOT 74
DP 401637

LOT 72
DP 401637

LOT 73
DP 401637

LOT 71
DP 401637

LOT 70
DP 401637

LOT 69
DP 401637

LOT 68
DP 401637

LOT 79
DP 401637

117
MIN FL = 9.31

118
MIN FL = 9.33

119
MIN FL = 9.39

120
MIN FL = 9.47

116
MIN FL = 9.31

115
MIN FL = 9.28

114
MIN FL = 9.07

113
MIN FL = 8.94

112
MIN FL = 8.87

111
MIN FL = 8.80

110
MIN FL = 8.39

109
MIN FL = 8.32

130
MIN FL = 9.29

131
MIN FL = 9.06

132
MIN FL = 8.98

SEE SHEET AB561

SEE ROAD MARKINGS PLAN
SHEET AB555

TEMPORARY
METALLED
TURNING HEAD
9m RADIUS

LOT 1000

ST MICHAEL CRESCENT (ROAD 14)
1.5m WIDE FOOTPATH

- KEY
- MAJOR CONTOURS
 - MINOR CONTOURS
 - CONTOUR LABEL
 - E.O.W. EXTENT OF WORKS
 - RETAINING WALL
 - EX POWER POLE WITH NEW LIGHT
 - STREET LIGHTS
 - NEW TREES
 - EXTENT OF 50mm AC10 ASPHALTIC CONCRETE
 - ASPHALTIC CONCTRTE IS 35mm DG10
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ROW's - 125mm, 30MPa
VC - 150mm, 30MPa
 - UNCUT AREA FOR ROAD WIDENING

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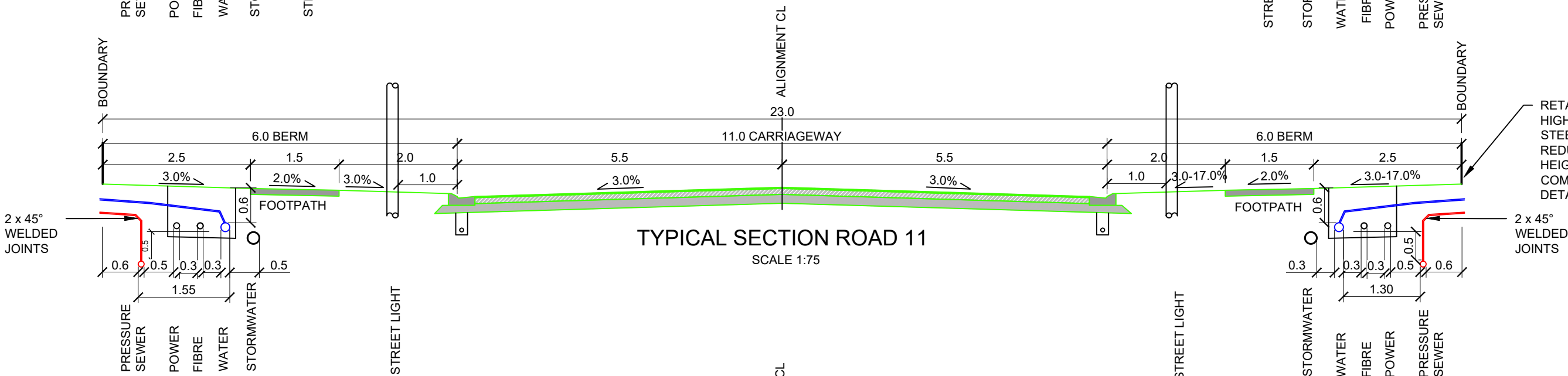
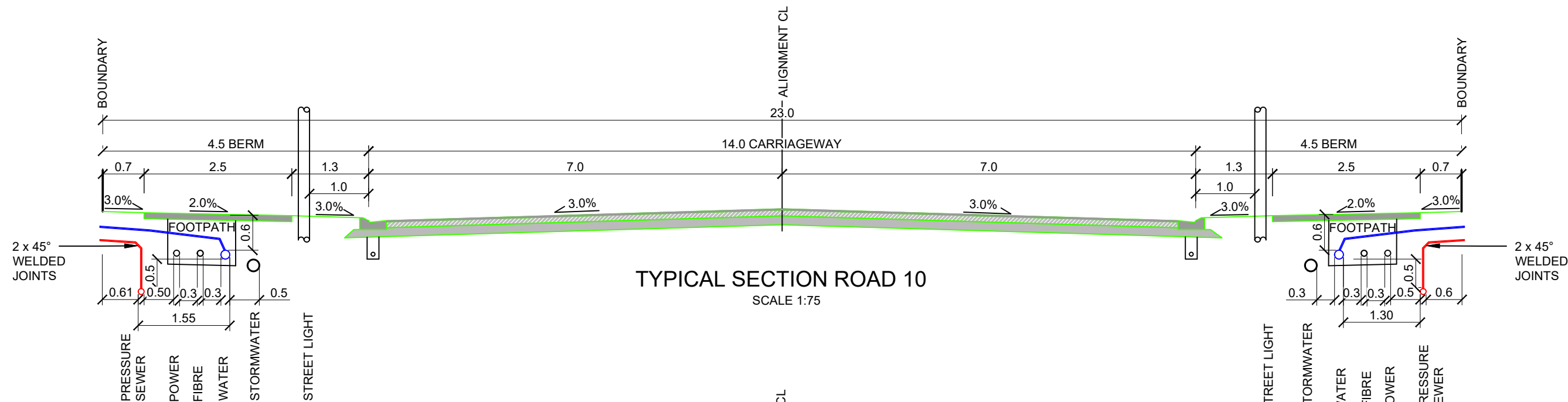
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C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-2020 KH GM
REV.	REVISION DETAILS	DRAWN APP.

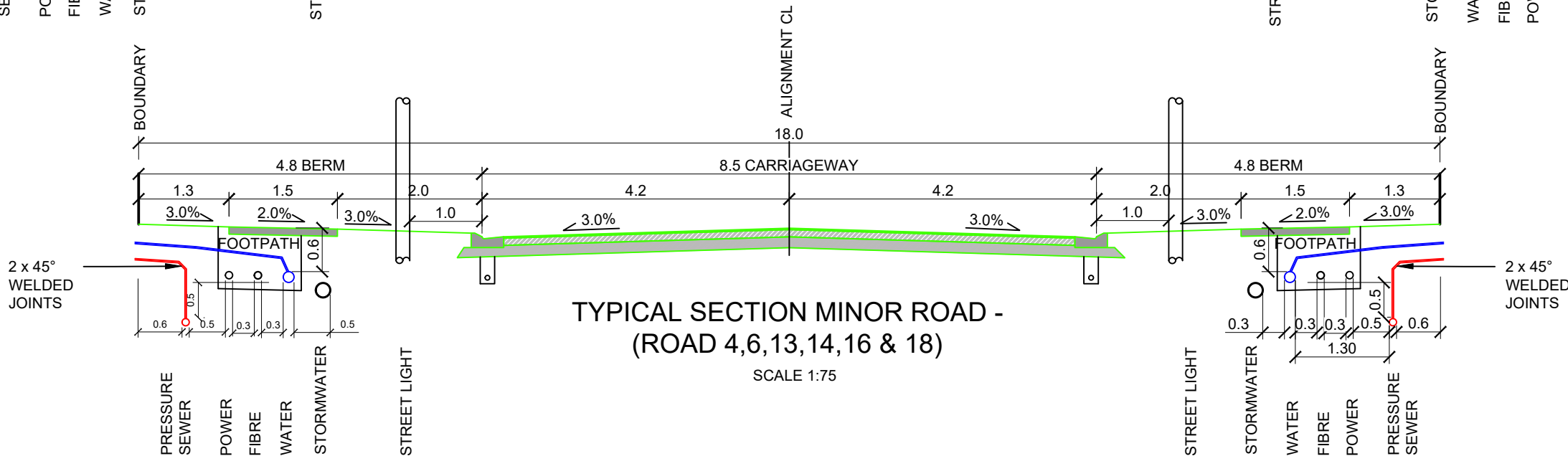
PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE
ROADING LAYOUT - SHEET 8

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB508			REVISION A



RETAINING WALL UP TO 700mm HIGH WHERE REQUIRED. BERM STEEPENED UP TO 17% TO REDUCE RETAINING WALL HEIGHT. SEE TYPICAL KEYSTONE COMPAC UNIT RETAINING WALL DETAIL ON SHEET AB514.




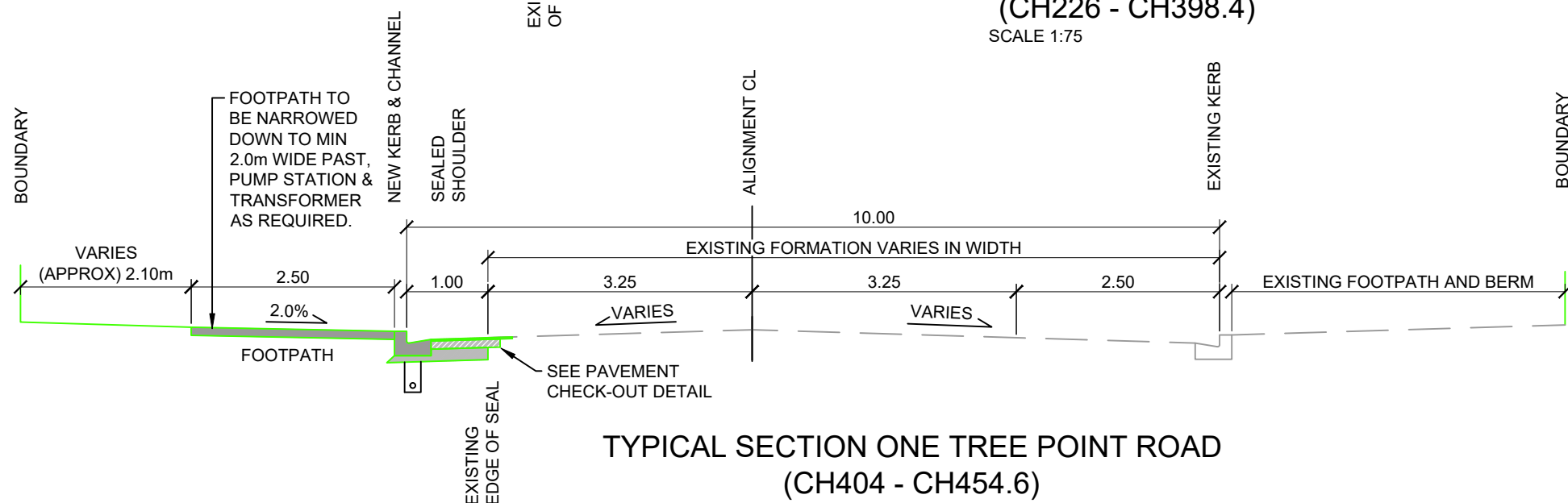
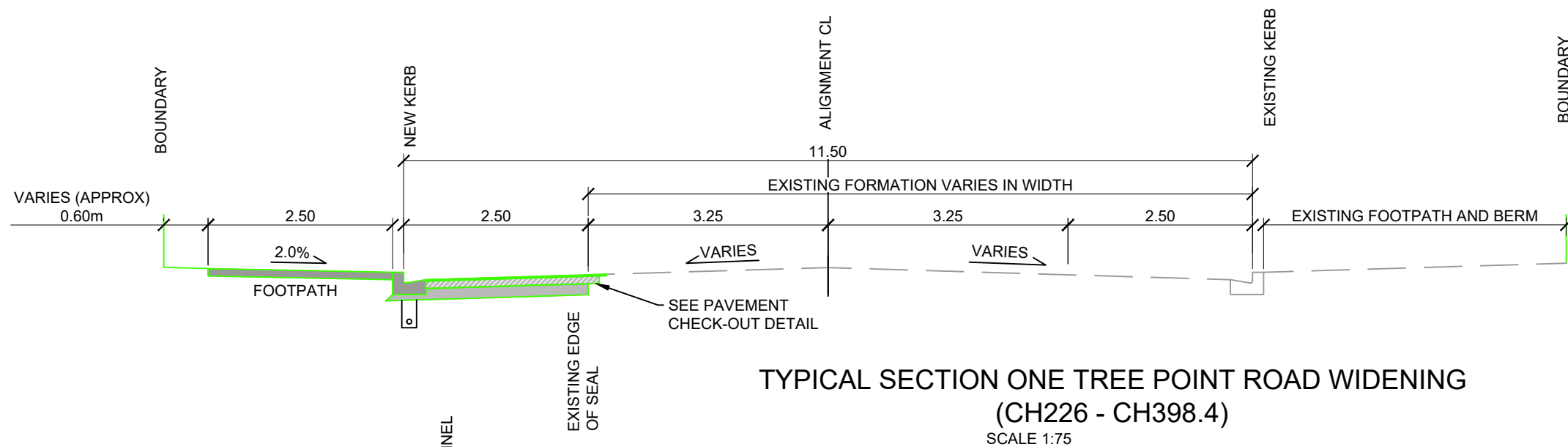
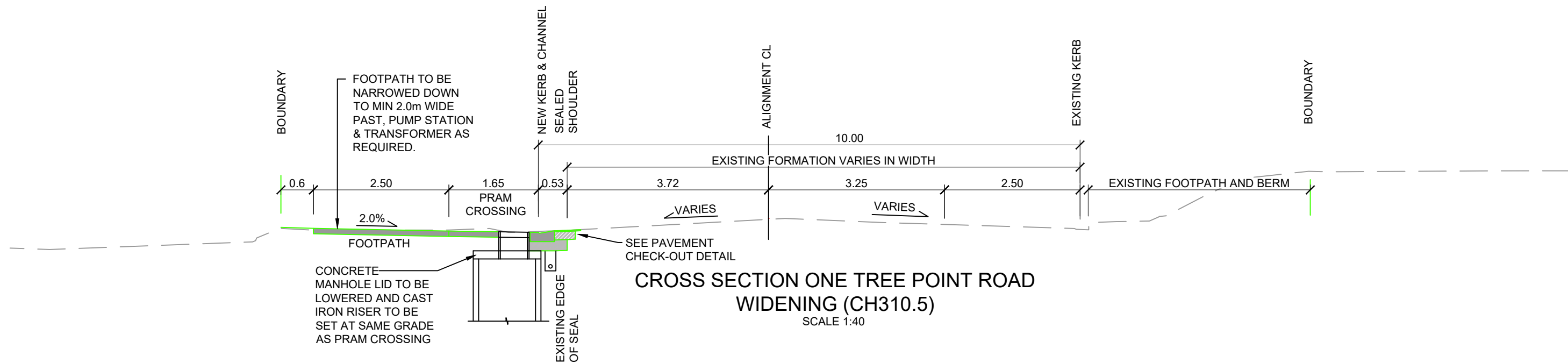
C		
B		
A	1ST ISSUE	26-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

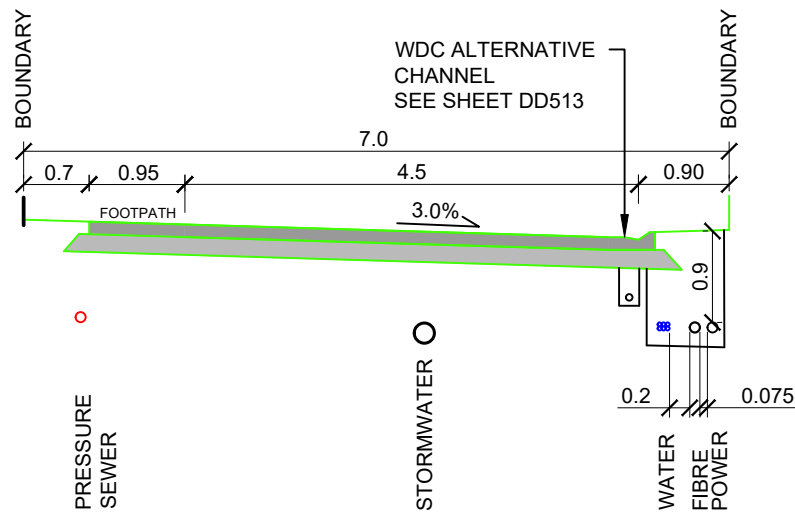
PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
ROADING TYPICAL SECTIONS SHEET 1

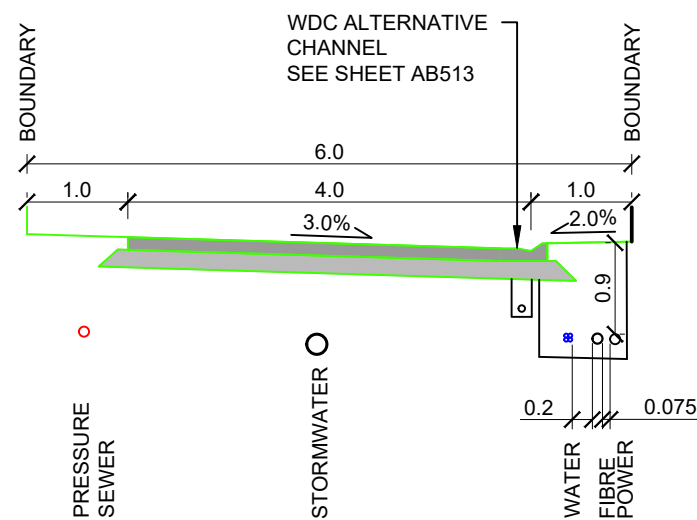
DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:75 @ A3		STATUS AS BUILTS
DWG NUMBER AB510			REVISION A


G. M.
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WDC IQP#002

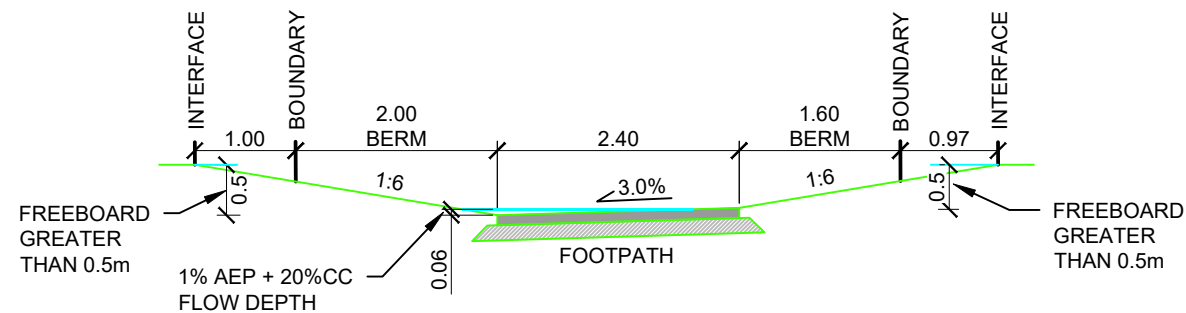




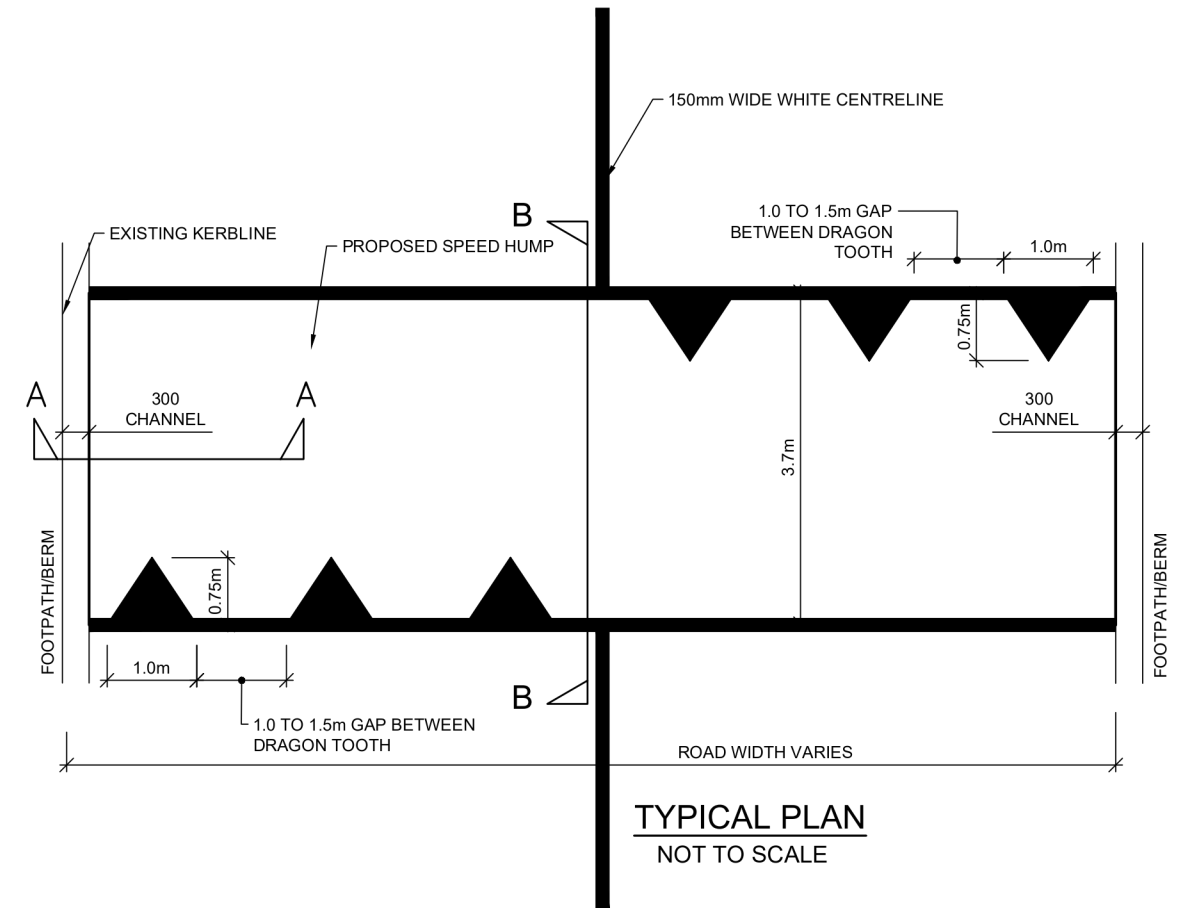
TYPICAL SECTION JOAL 711
SCALE 1:75



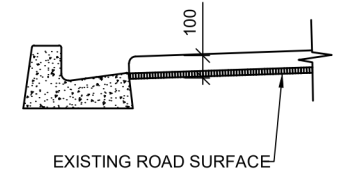
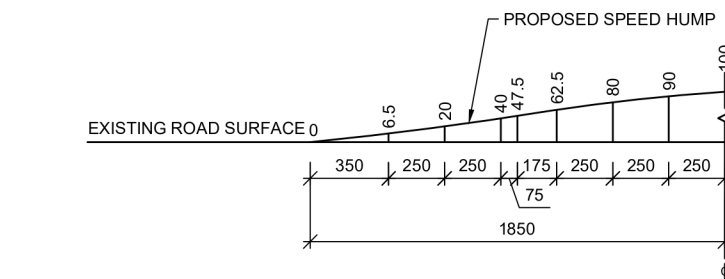
TYPICAL SECTION JOAL 701, 702, 703 & 716
SCALE 1:75



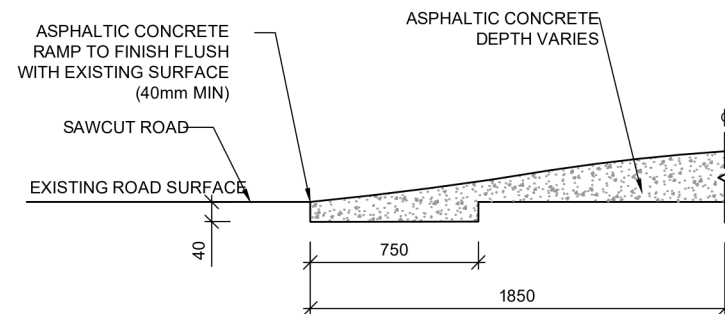
TYPICAL SECTION OVERLAND FLOW PATH (OLFP)
SCALE 1:75



TYPICAL PLAN
NOT TO SCALE



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

- NOTES:
1. All dimensions are in millimeters unless otherwise stated.
 2. Do not scale from this drawing.
 3. Contractor to liaise with local service authorities for location of all underground services before any excavation.
 4. All exposed saw cut edges are to be sprayed with a hot bitumin seal.
 5. All works to have a tolerance of $\pm 5\text{mm}$

SCALE 1:75

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Whangarei | Auckland | Wellington | Christchurch

C		
B		
A	1ST ISSUE	26-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

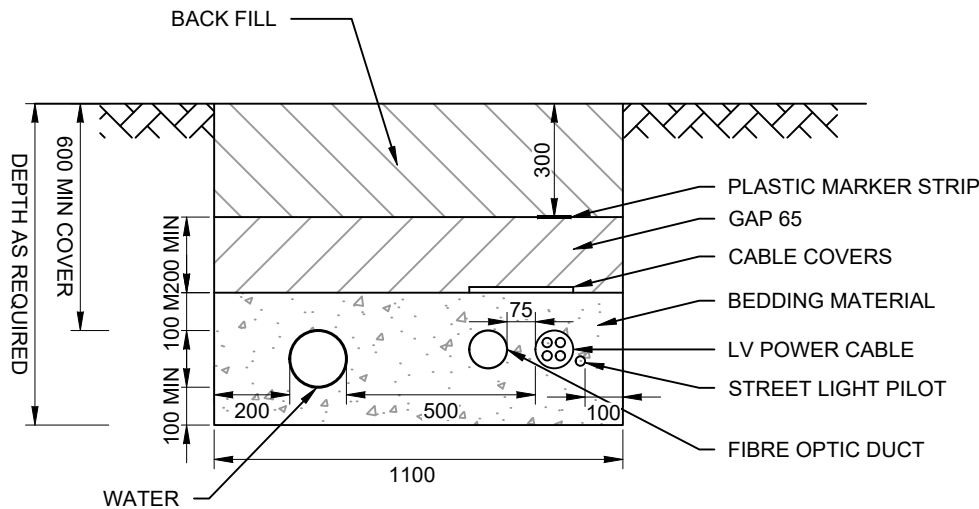
PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
ROADING TYPICAL SECTIONS SHEET 3 AND SPEED HUMP DETAILS

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:75 @ A3	STATUS AS BUILTS	REVISION A
DWG NUMBER AB512			

DATE PLOTTED: Thursday, 25 June 2020 11:25:31 a.m. FILE PATH: C:\Users\Karren\AppData\Local\Temp\BricsCAD\bp_1\14333-003-AB510-Road Typ Sec.dwg

DO NOT REPRODUCE WITHOUT WRITTEN AUTHORITY



COMBINED SERVICE TRENCH

LV POWER CABLE TRENCH

NOTES:

- BEDDING MATERIAL EITHER SAND OR 'CLEAN' SOIL. THERMAL BACKFILL TO BE USED WHERE SPECIFIED
- COVERS TO COMPLY WITH AS/NZS 3000:2000 3.11.3.3 AND AS4705-2000 AND SHALL BE LOCATED 75mm ABOVE CABLES AND DUCTS. CABLE COVERS SHALL BE AT LEAST 150mm IN WIDTH AND OVERLAP AT LEAST 40mm EACH SIDE OF THE CABLE.
- BACKFILL, GENERALLY USE FILL FROM TRENCH BUT ENSURE NO LARGE STONES OR SHARP OBJECTS ARE PLACED BACK IN THE TRENCH.
- MARKER STRIP TO COMPLY WITH AS/NZS 3000:2000 3.11.3.4 AND BE 100mm WIDE, COLOURED ORANGE, WITH THE WORDS 'ELECTRICAL CABLE BELOW'.
- WHERE PRACTICAL PROVIDE SOME SEPARATION (75mm OR GREATER) BETWEEN DIRECT LAID LV AND SL CABLE / FIBRE OPTIC DUCT.

DIRECTLY LAID LV CABLES

NORTHPOWER SHEET 2F250s7

THE MINIMUM CLEAR DISTANCE BETWEEN SERVICES SHALL BE THE GREATER OF THE REQUIRED CLEARANCES BETWEEN THE RELEVANT SERVICES AS FOLLOWS:

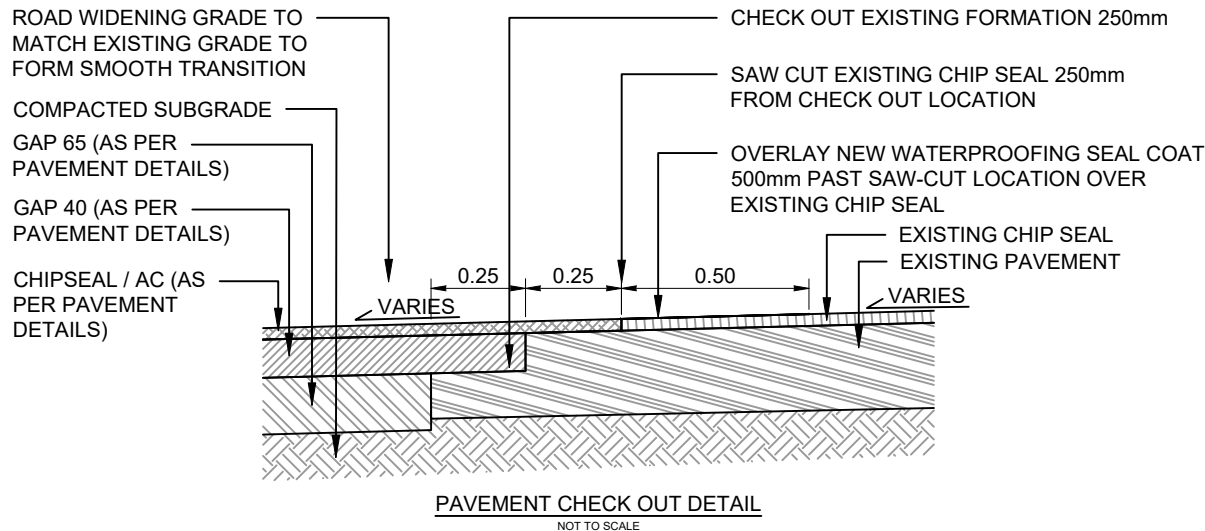
STORMWATER:	300 H, 150 V
WASTERWATER:	300 H, 150 V (EXCEPT WATERMAINS AS FOLLOWS) 1000 H, 500 V OR 600 H, 750 V TO WASTEWATERS AS PER TABLE 5.7.
ELECTRICITY:	500 H, 225 V (EXCEPT WATERMAINS > 200mm ID AS FOLLOWS) 1000 H, 225 V TO WATERMAINS > 200mm ID.
TELECOM & GAS:	300 H, 150 V (EXCEPT WATERMAINS > 200mm ID AS FOLLOWS) 600 H, 150 V TO WATERMAINS > 200mm ID.
WATERMAINS:	CLEARANCE TO OTHER SERVICES AS ABOVE. CLEARANCE TO OTHER WATERMAINS AS FOLLOWS: 600 H, 500 V WHERE NEW PIPELINE IS > 375mm ID 300 H, 150 V WHERE NEW PIPELINE IS ≤ 200mm ID AND WHERE EXISTING PIPELINE IS ≤ 375mm ID 600 H, 150 V WHERE NEW PIPELINE IS > 200mm ID AND WHERE EXISTING PIPELINE IS < 375mm ID

NOTES:

- ALL DISTANCES IN MM.
- ALL SERVICES SHALL HAVE 600mm MIN. COVER UNDER FOOTPATHS AND BERMS.
- REFER TO TABLE 5.7 (WASTEWATER) AND 6.4 (WATER) FOR FURTHER NOTES.
- VERTICAL CLEARANCES APPLY WHERE SERVICES CROSS, EXCEPT THAT WATERMAINS SHALL ALWAYS MAINTAIN A CLEARANCE ABOVE A PARALLEL WASTEWATER PIPELINE.

MINIMUM CLEARANCES BETWEEN SERVICES

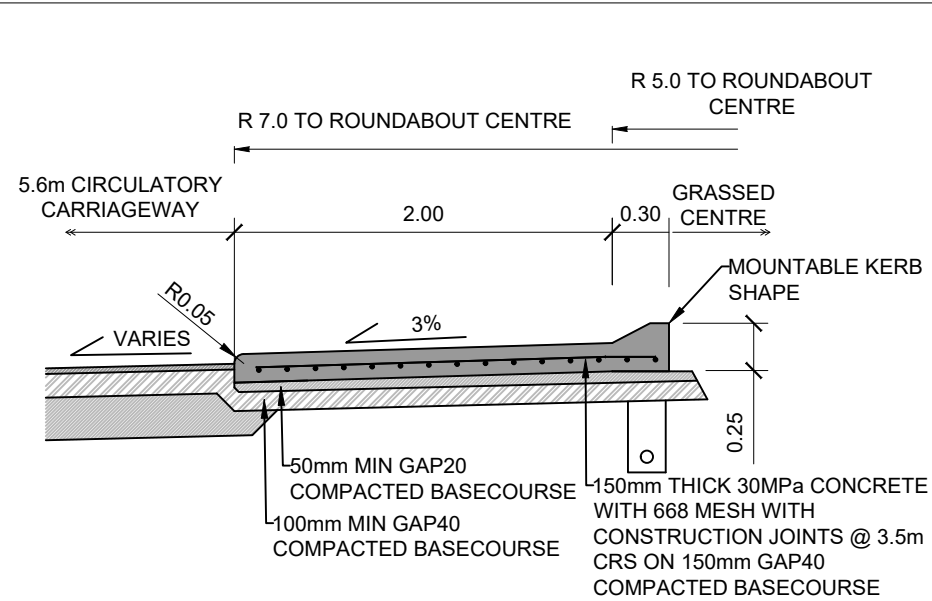
FOR LIVING 1 AND 2 AND ALL BUSINESS ENVIRONMENTS
WDC EES 2010 SHEET 30



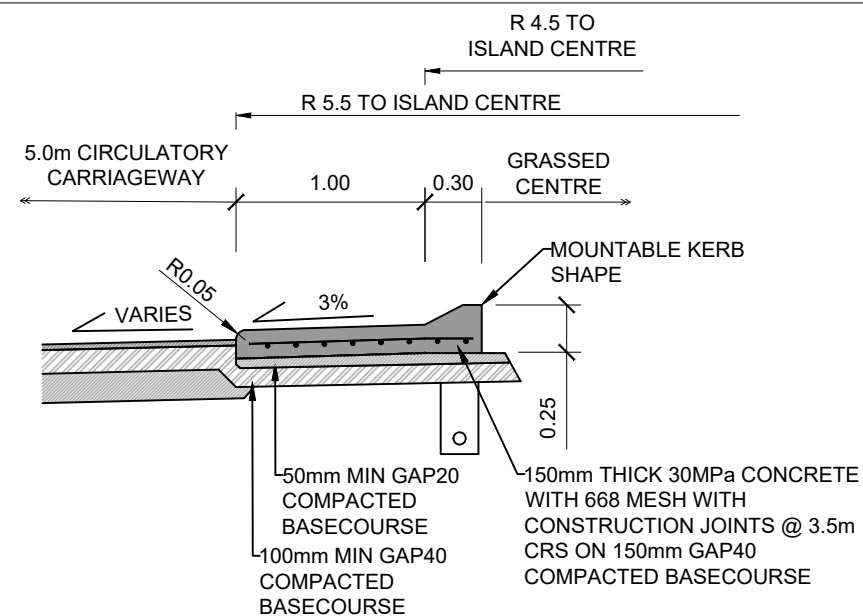
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WDC IQP#002

C		
B		
A	1ST ISSUE	26-06-20 KH G McG
REV.	REVISION DETAILS	DRAWN APP.

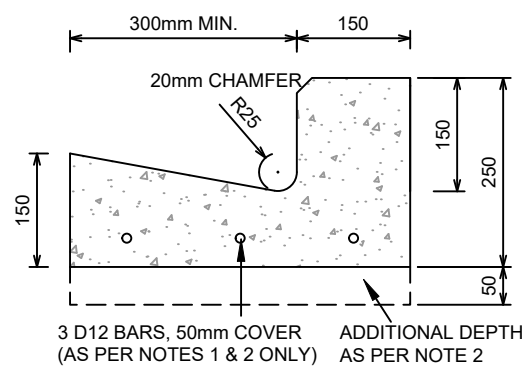
DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE NTS @ A3		STATUS AS BUILTS
DWG NUMBER AB513			REVISION A



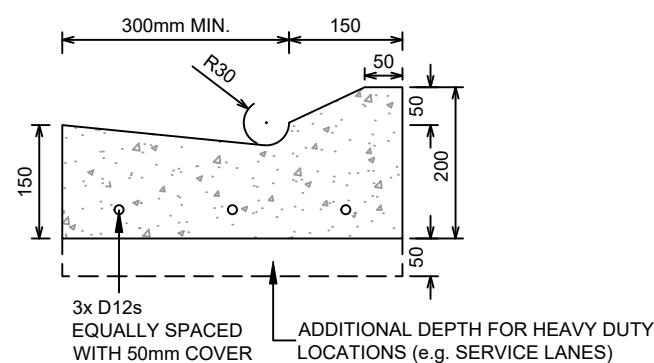
ROUNDAABOUT 1, 2 & 3 CENTRE ISLAND
SCALE 1:40



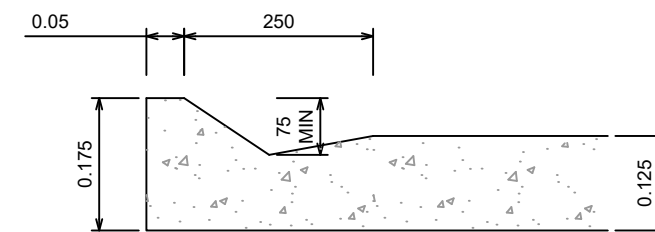
ROUNDAABOUT 11 CENTRE ISLAND
SCALE 1:40



KERB AND CHANNEL
SHEET 13 WDC EES 2010 - NOT TO SCALE



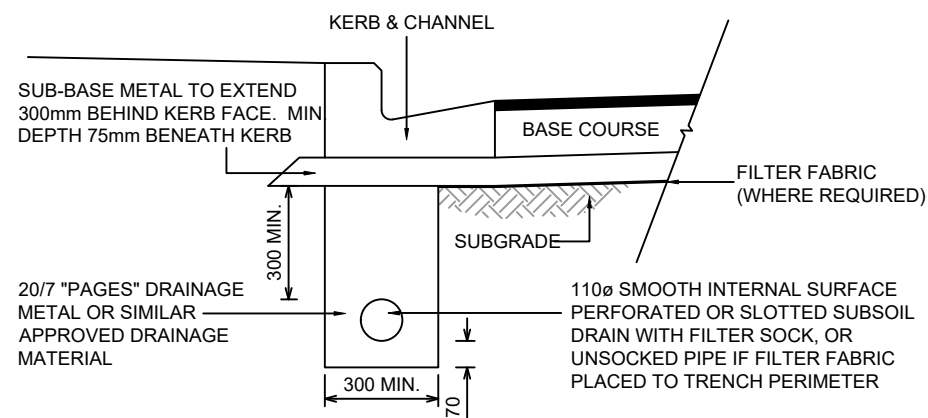
MOUNTABLE KERB & CHANNEL
SHEET 13 WDC EES 2010 - NOT TO SCALE



ALTERNATIVE CHANNEL
SHEET 7 WDC EES 2010 - NOT TO SCALE

KERB & CHANNEL NOTES:

- 3/D12 REINFORCING BARS TO BE PLACED AROUND ALL CURVES, AND INTERSECTIONS BETWEEN TANGENT POINTS IN BUSINESS ENVIRONMENTS.
- COMMERCIAL AND INDUSTRIAL CROSSINGS TO BE ADDITIONAL 50mm IN DEPTH AS WELL AS HAVING 3-D12'S EQUALLY SPACED IN THE CHANNEL.



UNDER KERB DRAINAGE
NOT TO SCALE

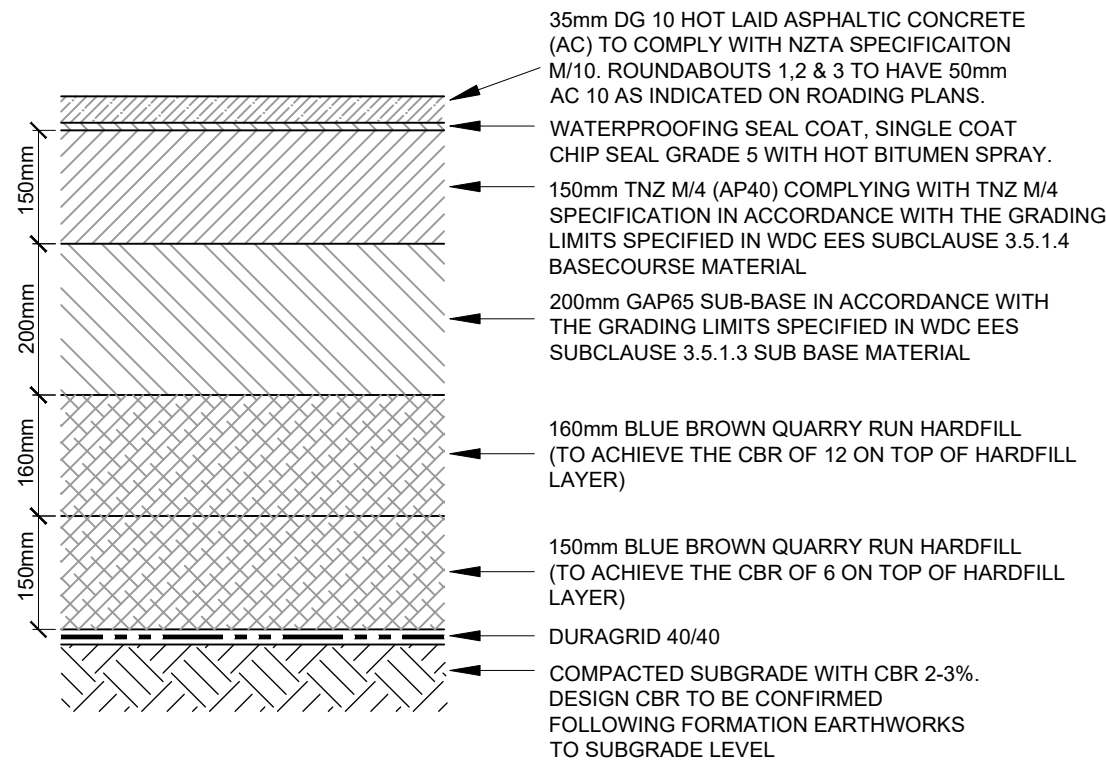
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WDC IQP#002

C			
B			
A	1ST ISSUE	26-06-20	KH GMcG
REV.	REVISION DETAILS	DRAWN APP.	

PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

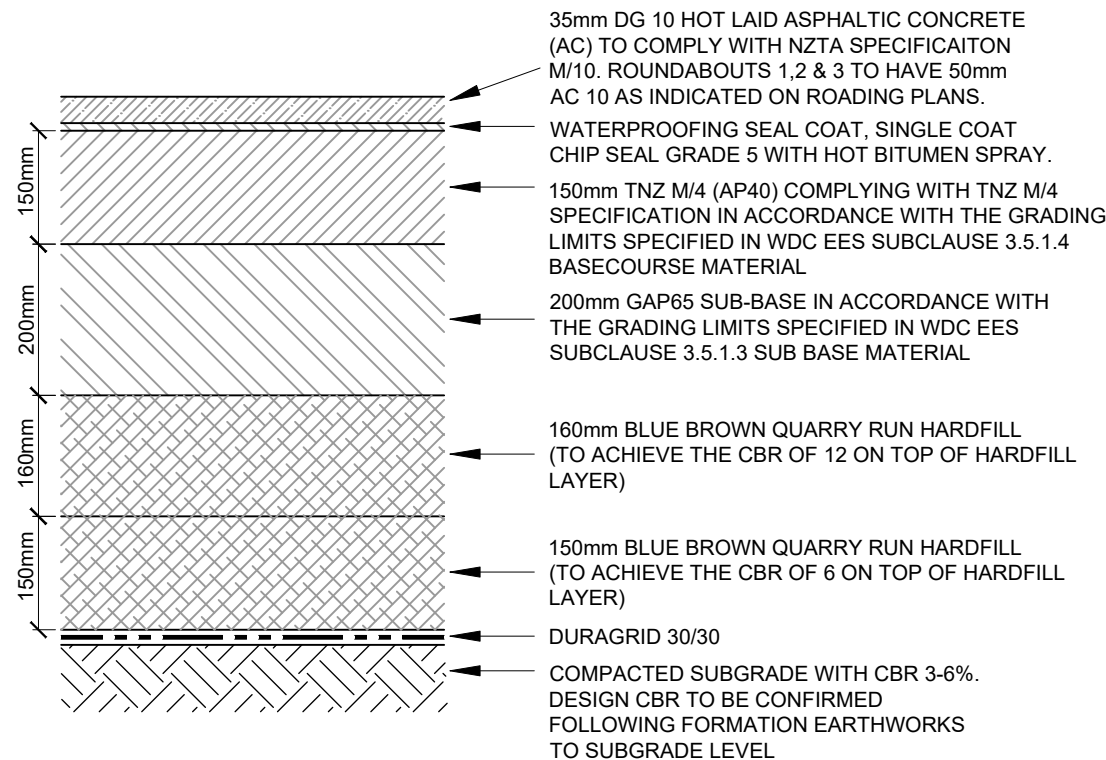
TITLE
TYPICAL ROUNDAABOUT & PAVEMENT DETAILS

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE AS SHOWN @ A3	STATUS AS BUILTS	
DWG NUMBER AB514		REVISION A	



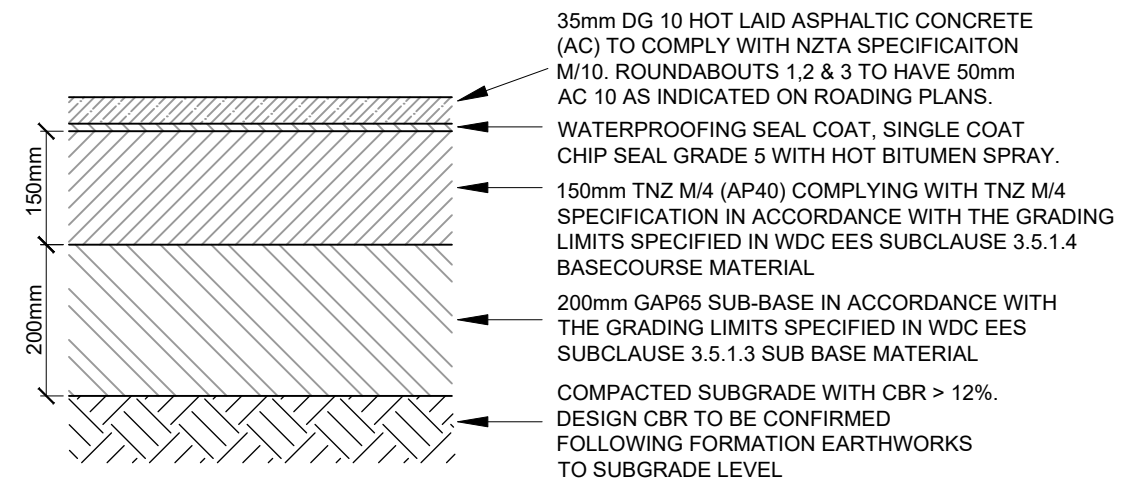
**PAVEMENT DETAIL A FOR
ONE TREE POINT ROAD WIDENING**

SCALE 1:10



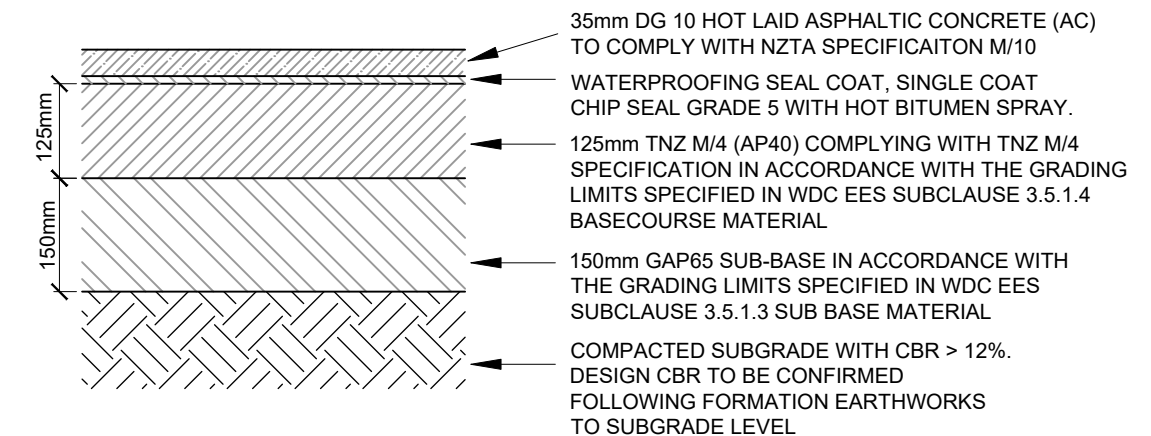
**PAVEMENT DETAIL B FOR
ONE TREE POINT ROAD WIDENING**

SCALE 1:10



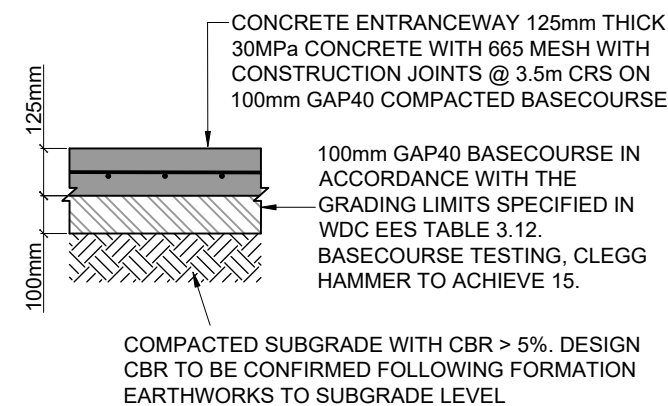
PAVEMENT DETAILS FOR MAJOR ROAD 4, 10, 11

SCALE 1:10



PAVEMENT DETAILS FOR MINOR ROAD 6, 13, 14, 16 & 18

SCALE 1:10

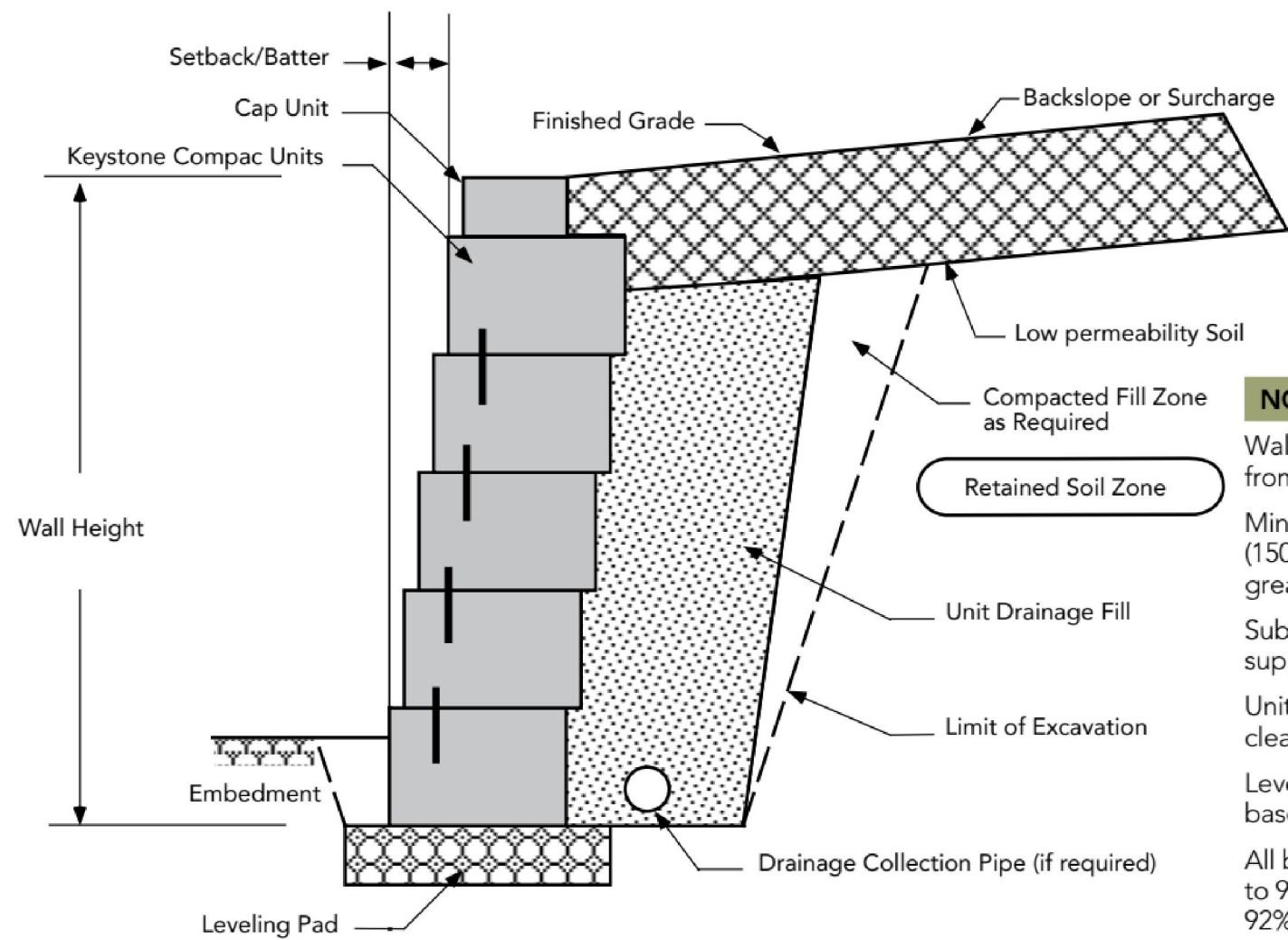


PAVEMENT DETAILS FOR JOAL

SCALE 1:20

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GRAVITY WALL SCHEMATIC



NOTES:

Wall Height (H) is the total height from top to bottom.

Minimum wall embedment is 6 inches (150mm) or Height/8, whichever is greater for level toe.

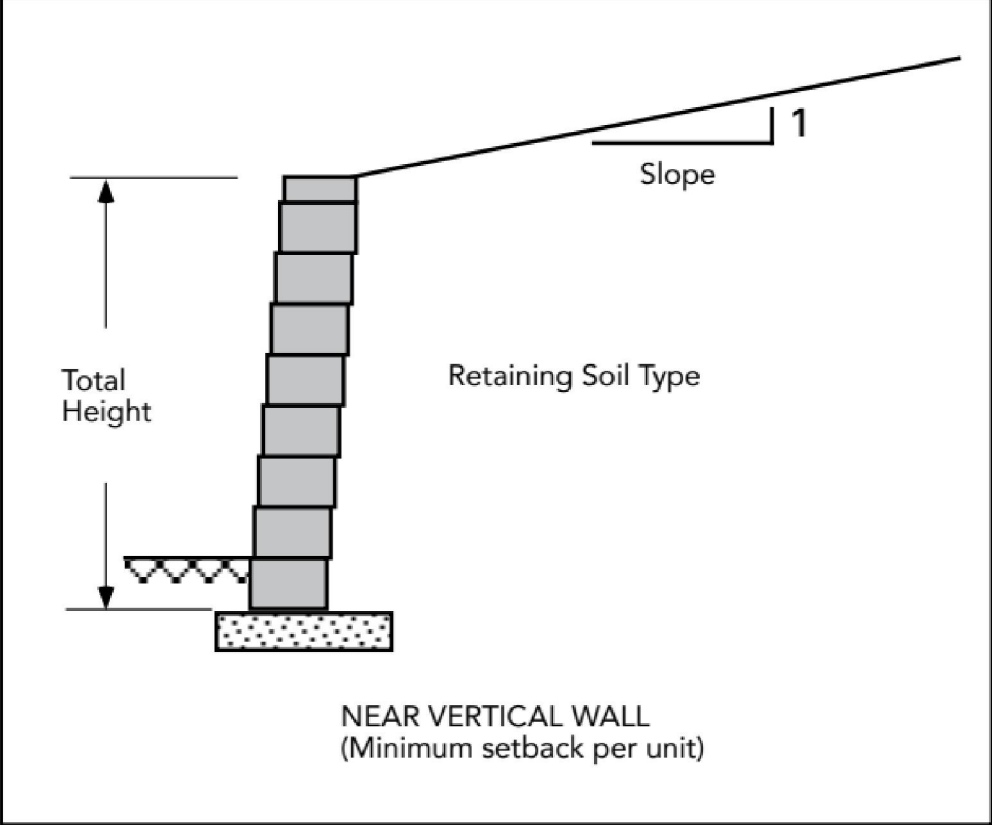
Subsurface soils must be capable of supporting wall system.

Unit drainage fill is ¾ inch (20mm) clean crushed stone.

Leveling pad is crushed stone base material.

All backfill materials are compacted to 95% Standard Proctor Density or 92% Modified Proctor Density.

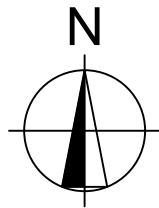
Finished grade must provide positive drainage.



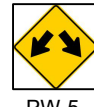
NEAR VERTICAL - KEYSTONE COMPAC UNITS

MAX. HGT.		BACKSLOPE			
Soil Type	Level	4H:1V	3H:1V	2H:1V	
Sand/Gravel	3.00' (0.9m)	2.33' (0.7m)	2.33' (0.7m)	2.33' (0.7m)	

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THREE WAY
STREET SIGN



LOT 198
DP 400600

ONE TREE POINT ROAD

KITEMAUNGA
AVENUE

ISLAND 2
ROUNDAABOUT 2

ISLAND 1

ISLAND 3

KEY:

- A. LIMIT LINE: 300mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- B. CENTRELINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- C. EDGE LINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- D. NO STOPPING: 100mm WIDE REFLECTORISED YELLOW 1m STRIPE, 1m GAP

 TRAFFIC SIGN AS SHOWN



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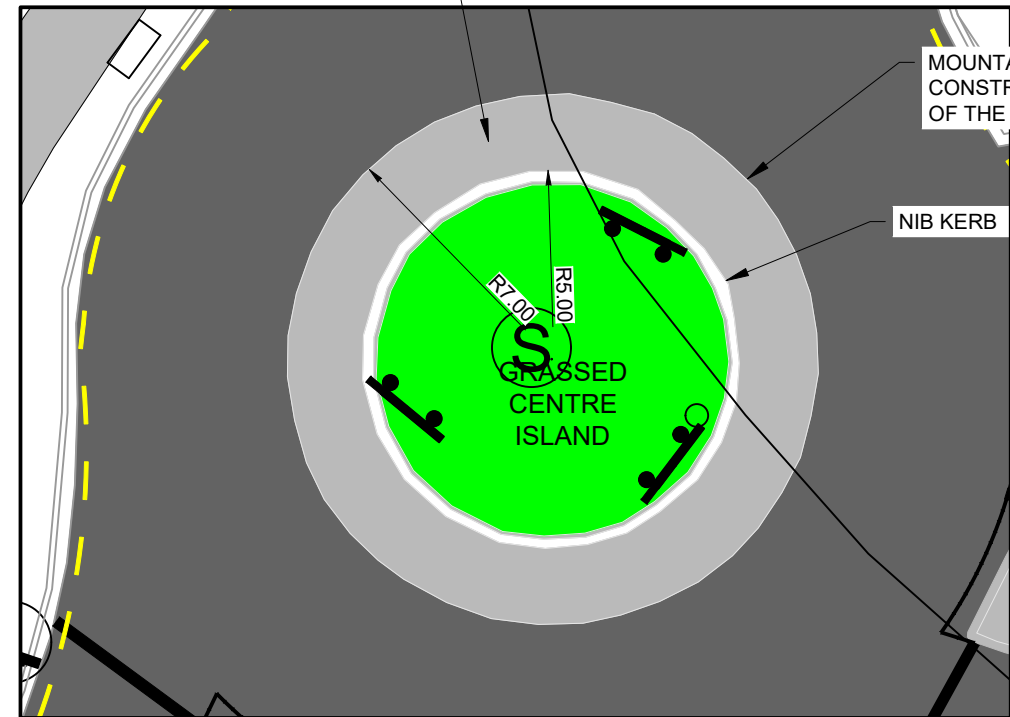
C			
B			
A	1ST ISSUE	26-06-20	KH GMcG
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE
LINEMARKING & SIGNPOSTING PLAN
ROUNDAABOUT 2

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB550			REVISION A

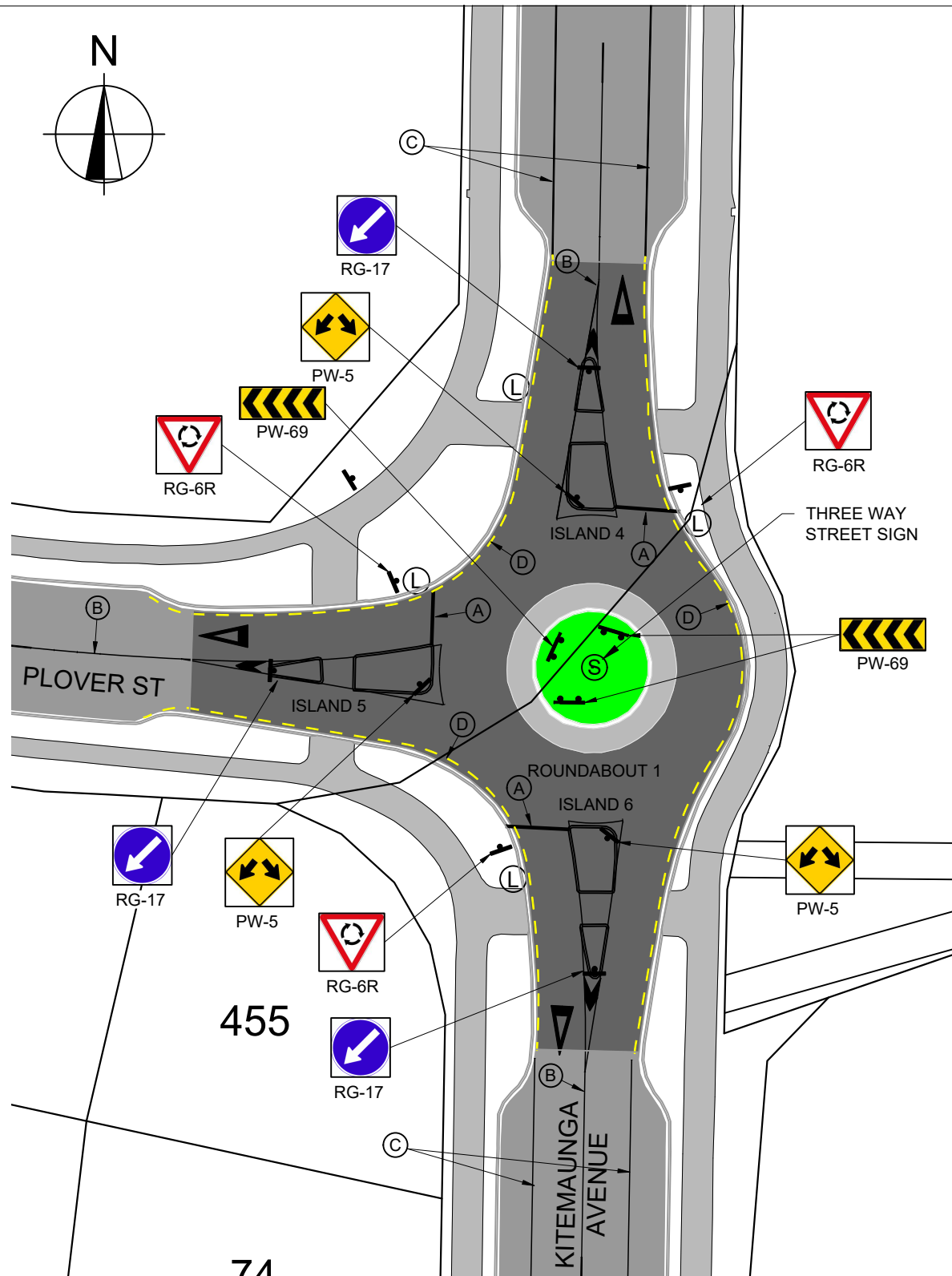
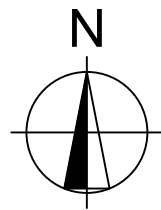
TRUCK APRON:
CONCRETE EXPOSED AGGREGATE
BLACK OXIDE 2.5KG/1m³ OF
CONCRETE. SEE DETAIL SHEET AB513



ROUNDAABOUT 2
SCALE 1:200



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WDC IQP#002



KEY:

- A. LIMIT LINE: 300mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- B. CENTRELINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- C. EDGE LINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- D. NO STOPPING: 100mm WIDE REFLECTORISED YELLOW 1m STRIPE, 1m GAP

TRAFFIC SIGN AS SHOWN

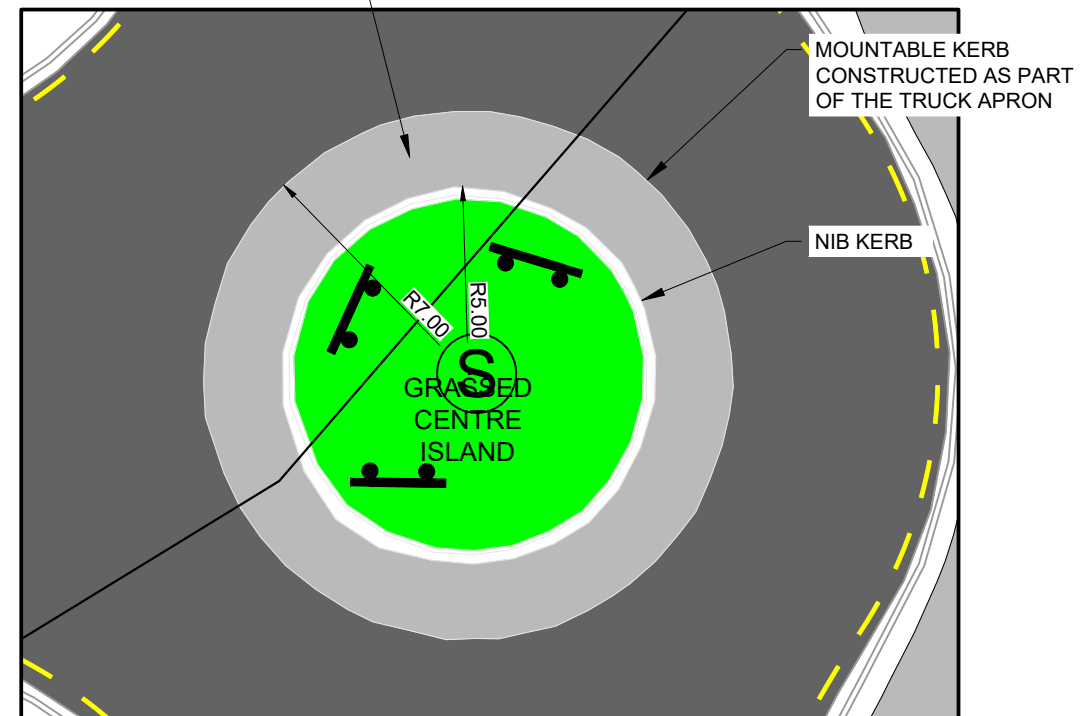
C		
B		
A	1ST ISSUE	26-06-2020 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
LINEMARKING & SIGNPOSTING PLAN ROUNDBABOUT 1

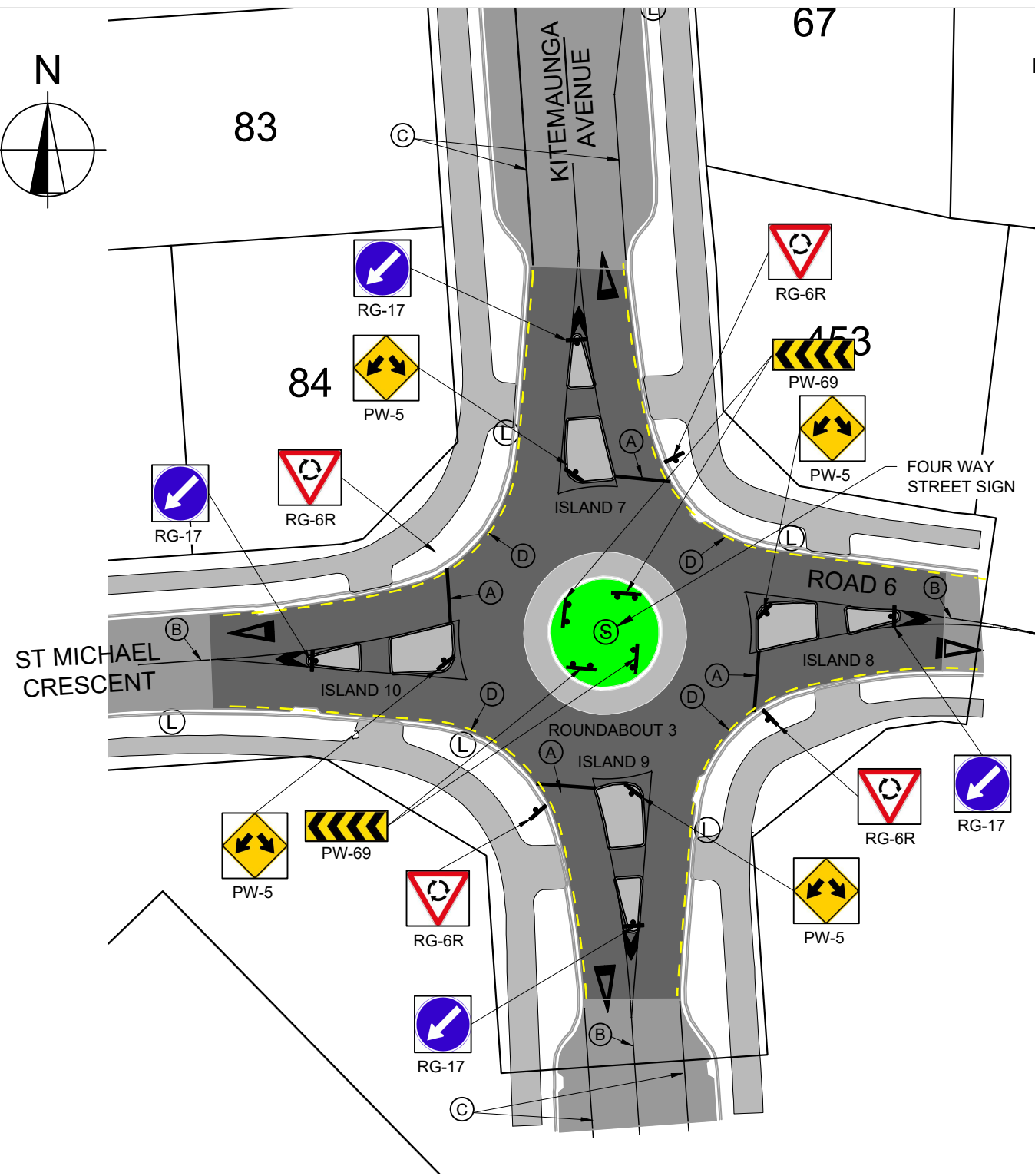
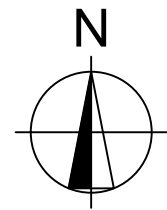
DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB551			REVISION A

TRUCK APRON:
CONCRETE EXPOSED AGGREGATE
BLACK OXIDE 2.5KG/1m³ OF
CONCRETE. SEE DETAIL SHEET AB513

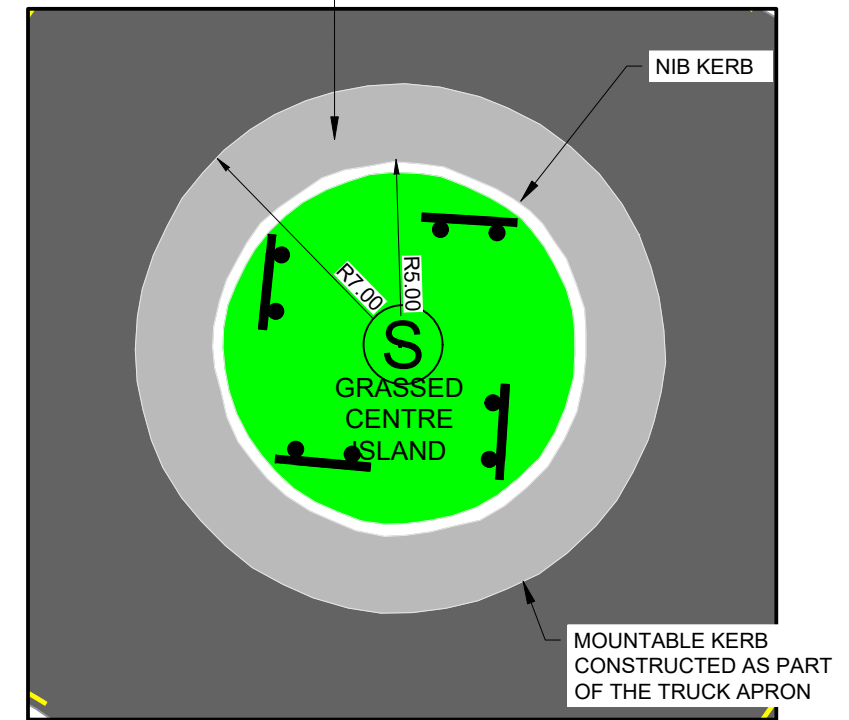


ROUNDBABOUT 1
SCALE 1:200


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TRUCK APRON:
CONCRETE EXPOSED AGGREGATE
BLACK OXIDE 2.5KG/1m³ OF
CONCRETE. SEE DETAIL SHEET AB513



ROUNABOUT 3
SCALE 1:200

KEY:

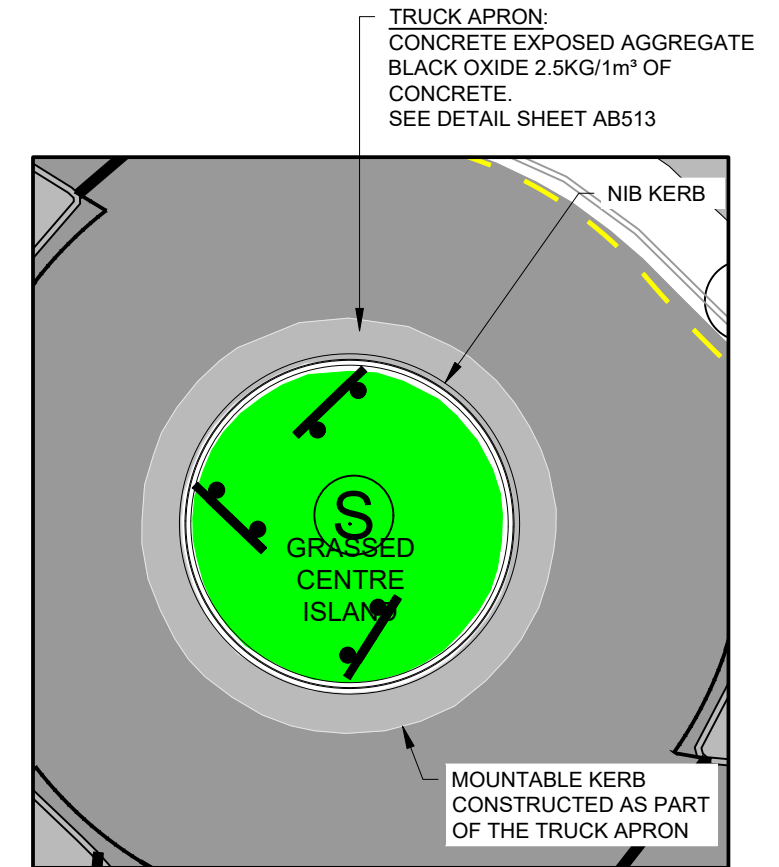
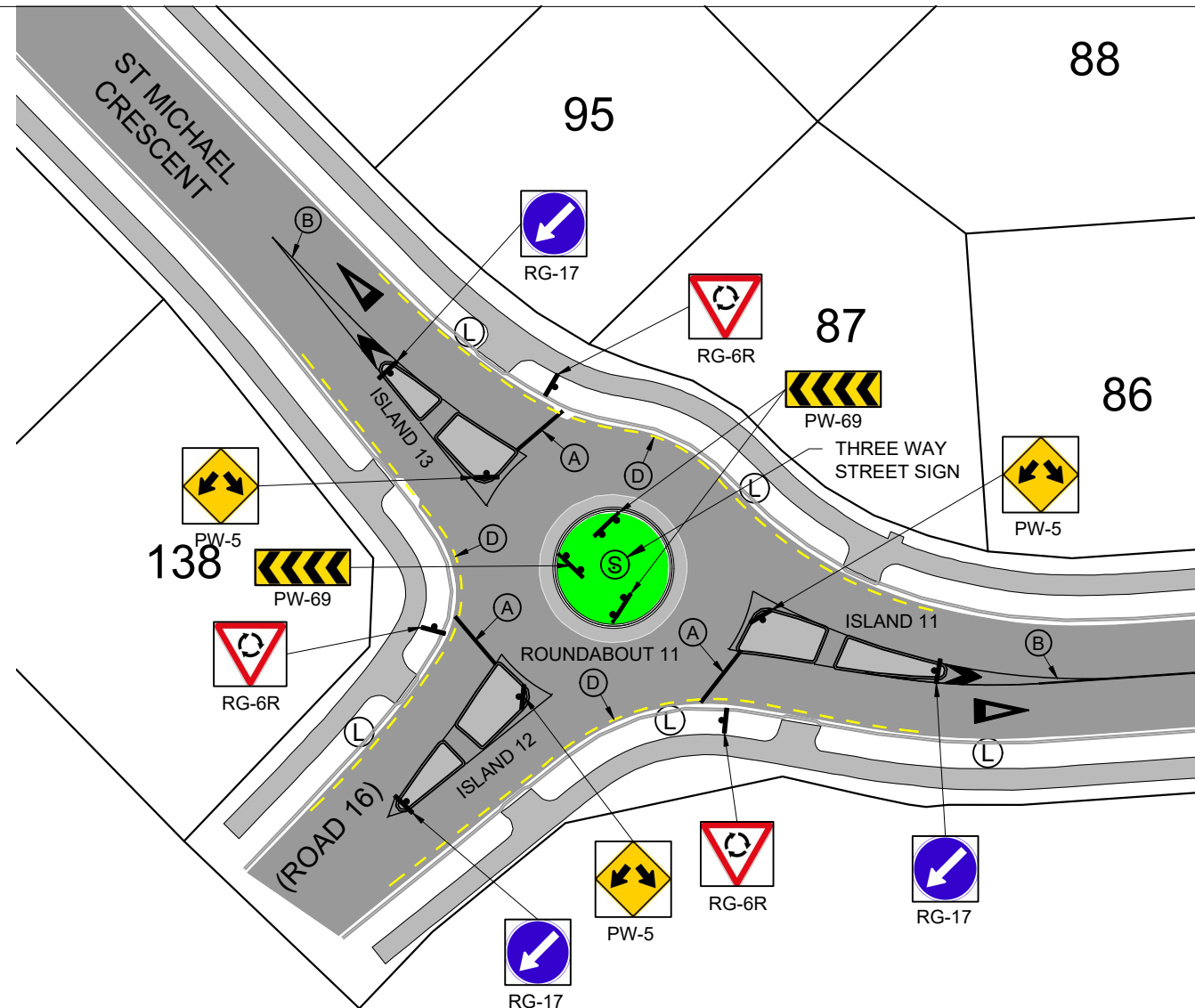
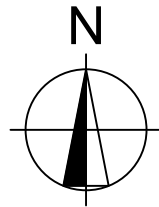
- A. LIMIT LINE: 300mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- B. CENTRELINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- C. EDGE LINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- D. NO STOPPING: 100mm WIDE REFLECTORISED YELLOW 1m STRIPE, 1m GAP

TRAFFIC SIGN AS SHOWN

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C		
B		
A	1ST ISSUE	26-06-2020 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB552			REVISION A



ROUNDABOUT 11
SCALE 1:200

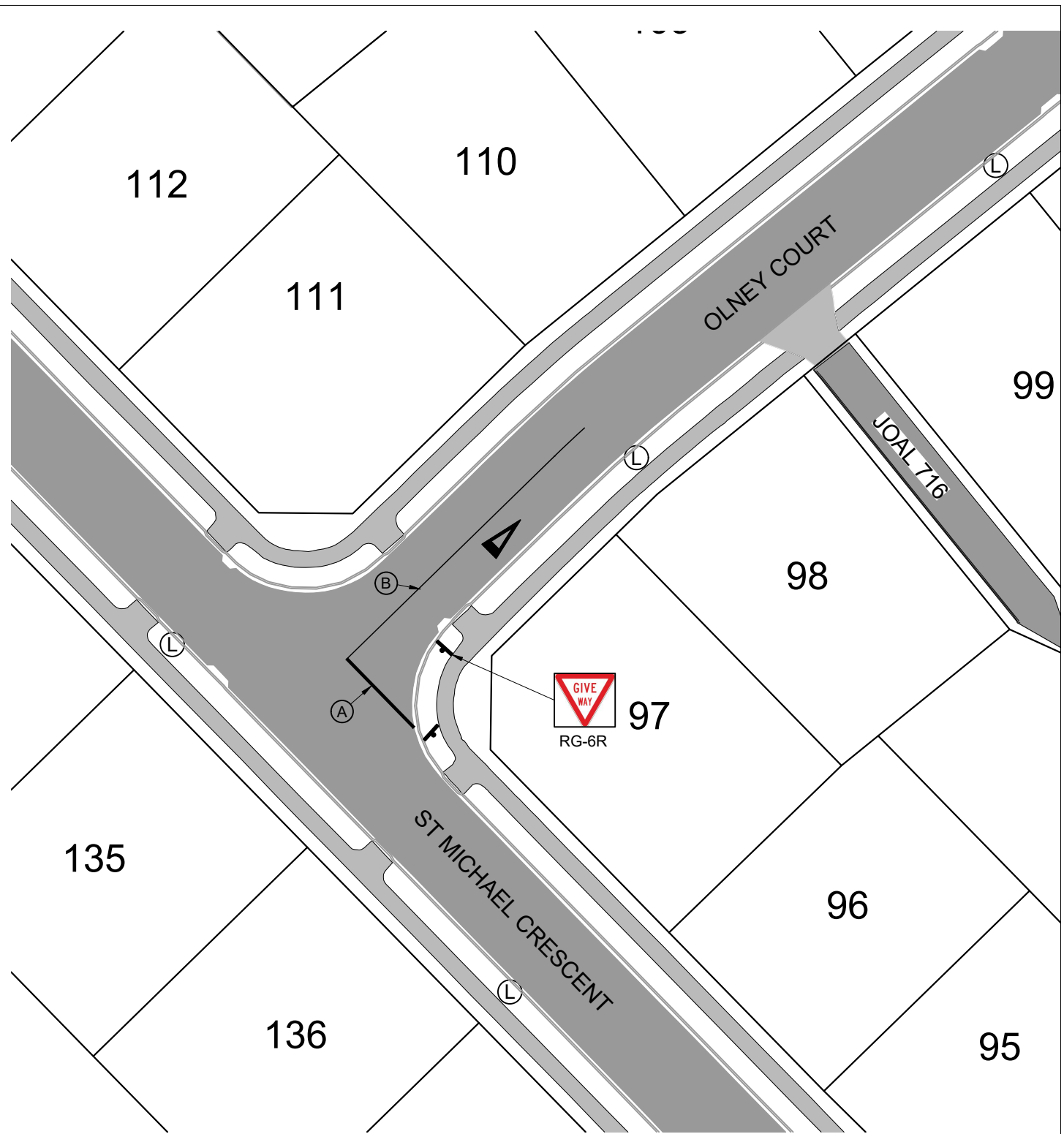
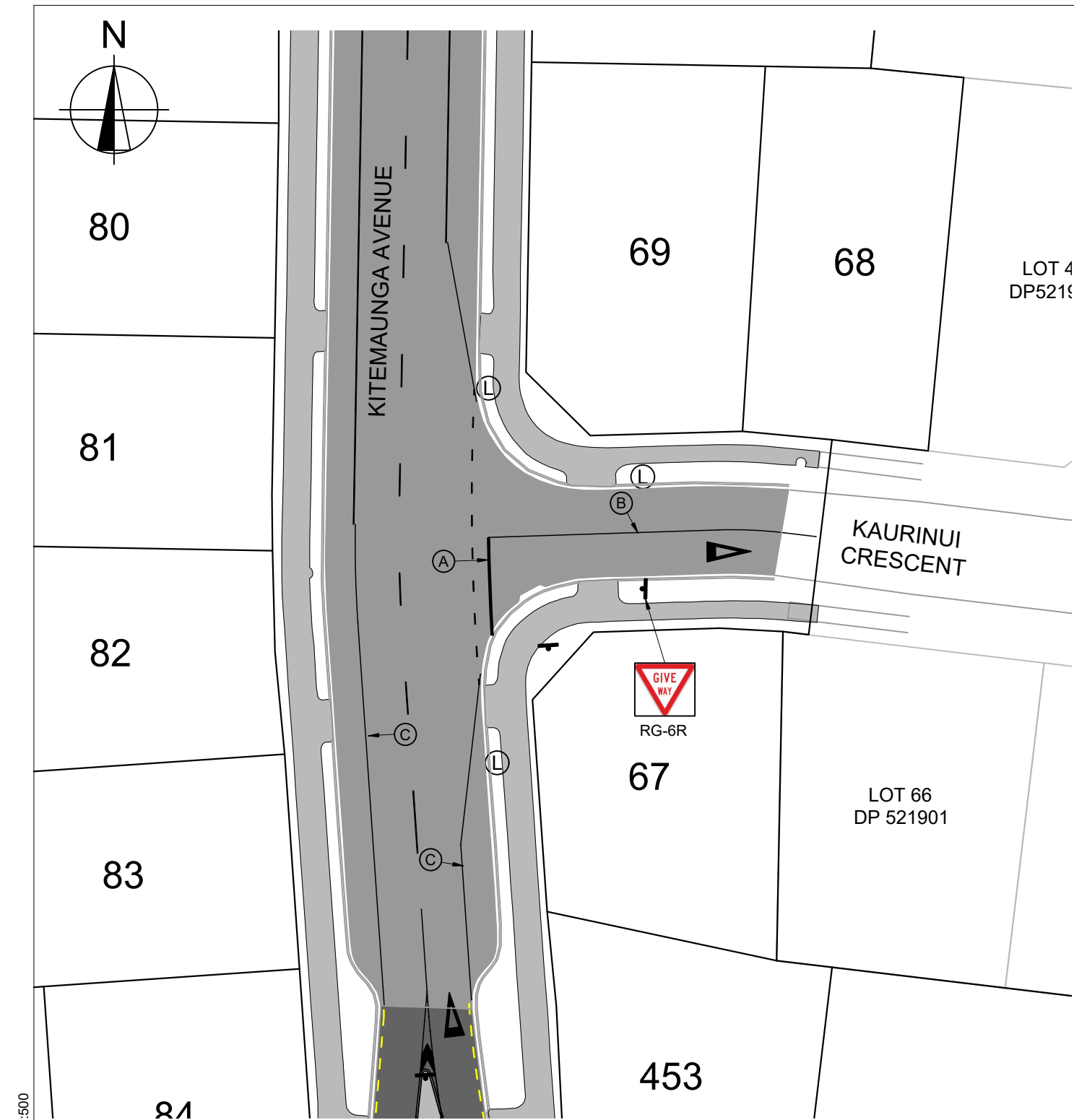
- KEY:**
- A. LIMIT LINE: 300mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
 - B. CENTRELINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
 - C. EDGE LINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
 - D. NO STOPPING: 100mm WIDE REFLECTORISED YELLOW 1m STRIPE, 1m GAP

 TRAFFIC SIGN AS SHOWN

C		
B		
A	1ST ISSUE	26-06-2020 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB553			REVISION A


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WDC IQP#002



KEY:

- A. LIMIT LINE: 300mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- B. CENTRELINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- C. EDGE LINE: 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- D. NO STOPPING: 100mm WIDE REFLECTORISED YELLOW 1m STRIPE, 1m GAP

TRAFFIC SIGN AS SHOWN



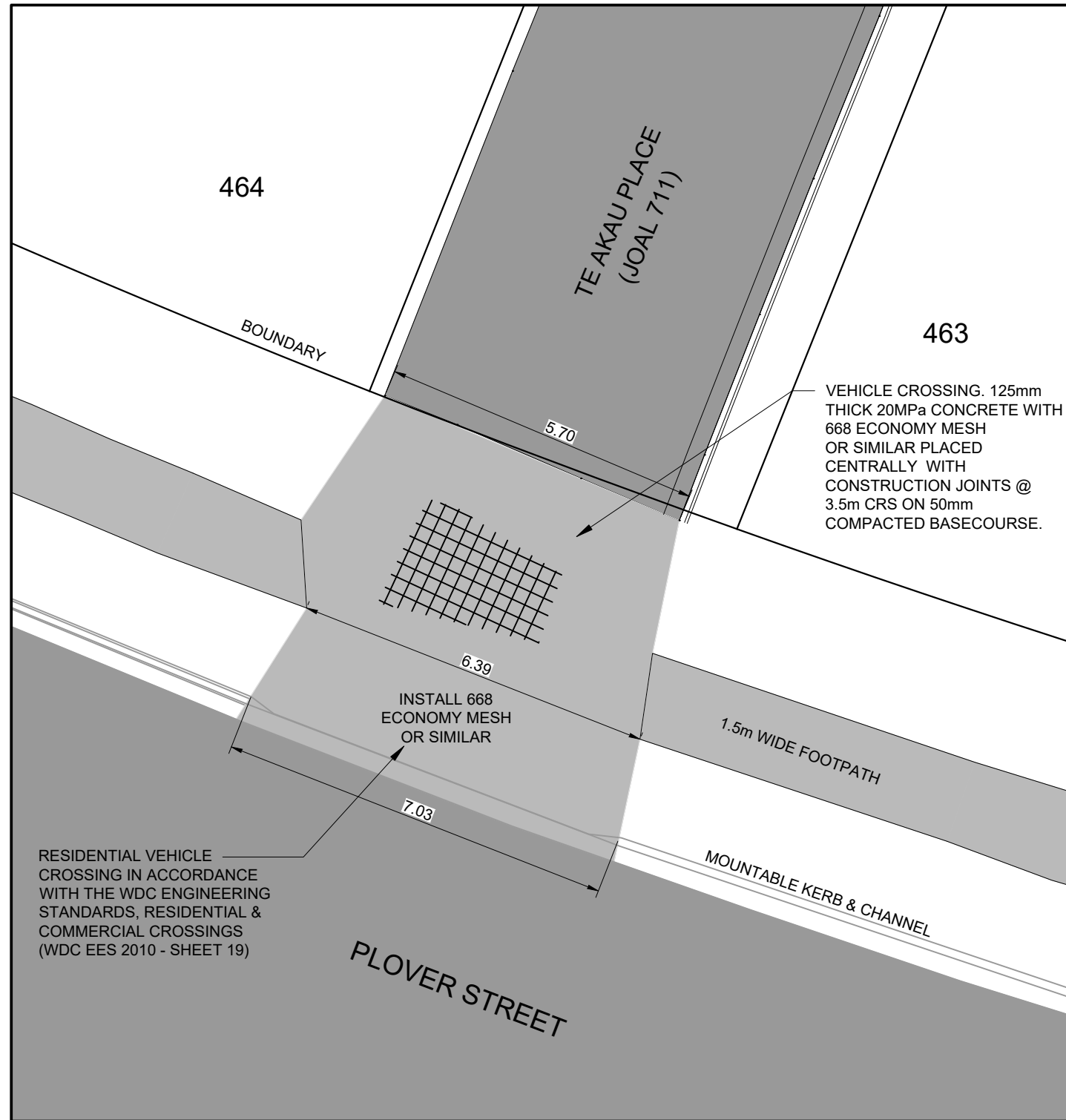
C		
B		
A	1ST ISSUE	26-06-2020 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
LINEMARKING & SIGNPOSTING PLAN ROAD 4 INTERSECTION & ROAD 18 INTERSECTION

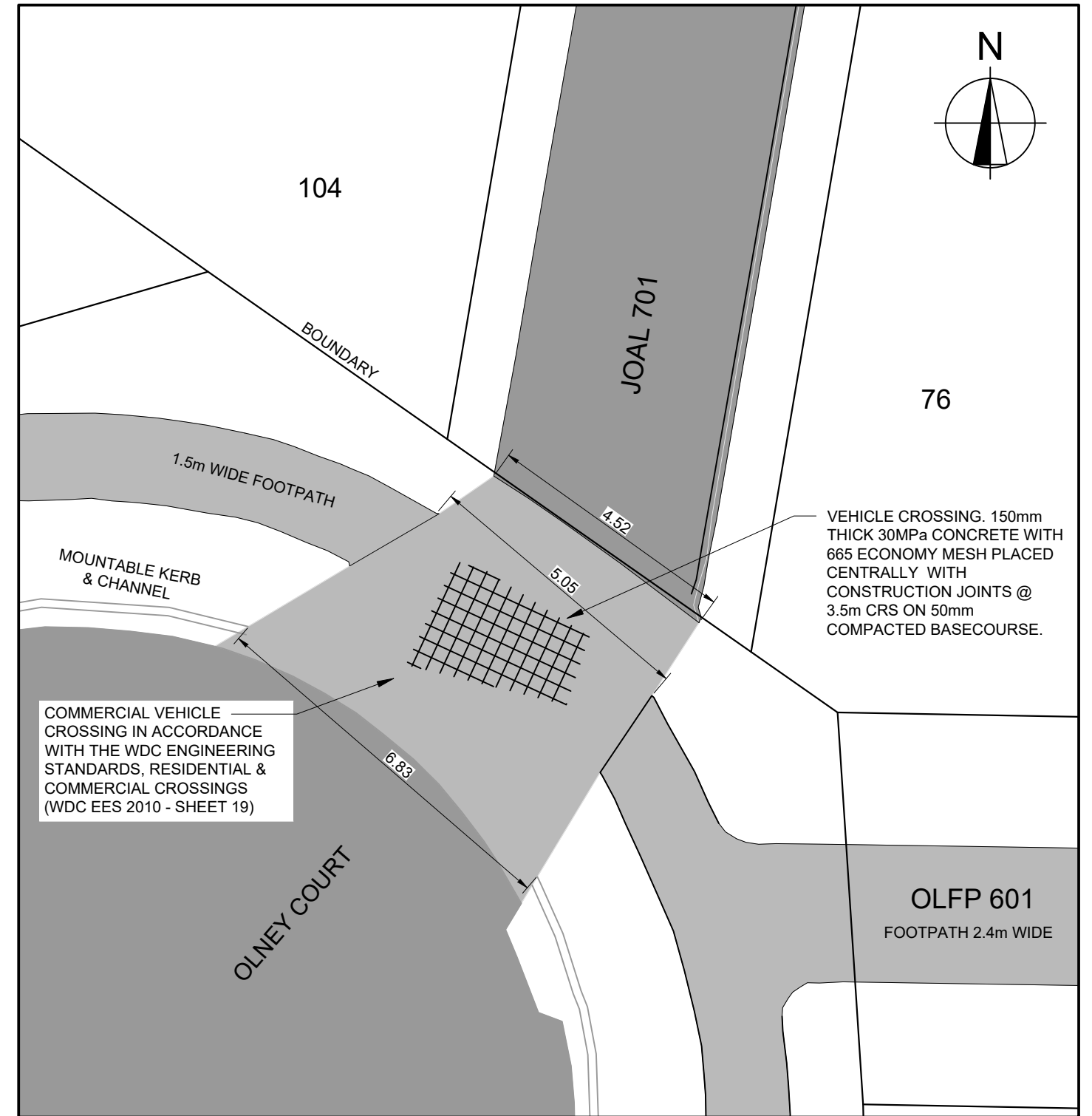
DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB554		REVISION A	

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WDC IQP#002



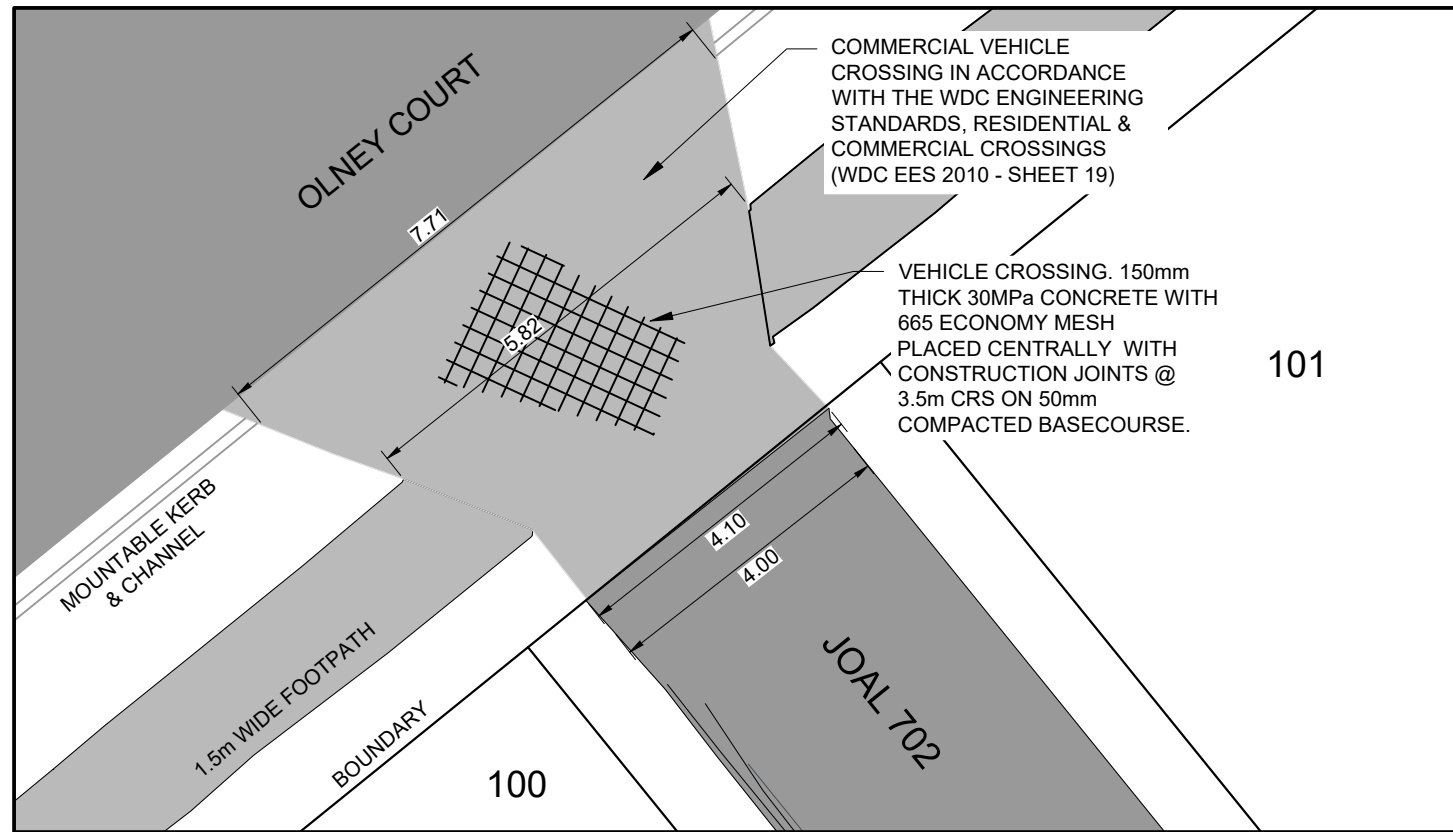
TE AKAU PLACE (JOEL 711) - VEHICLE CROSSING

SCALE 1:100 @ A3



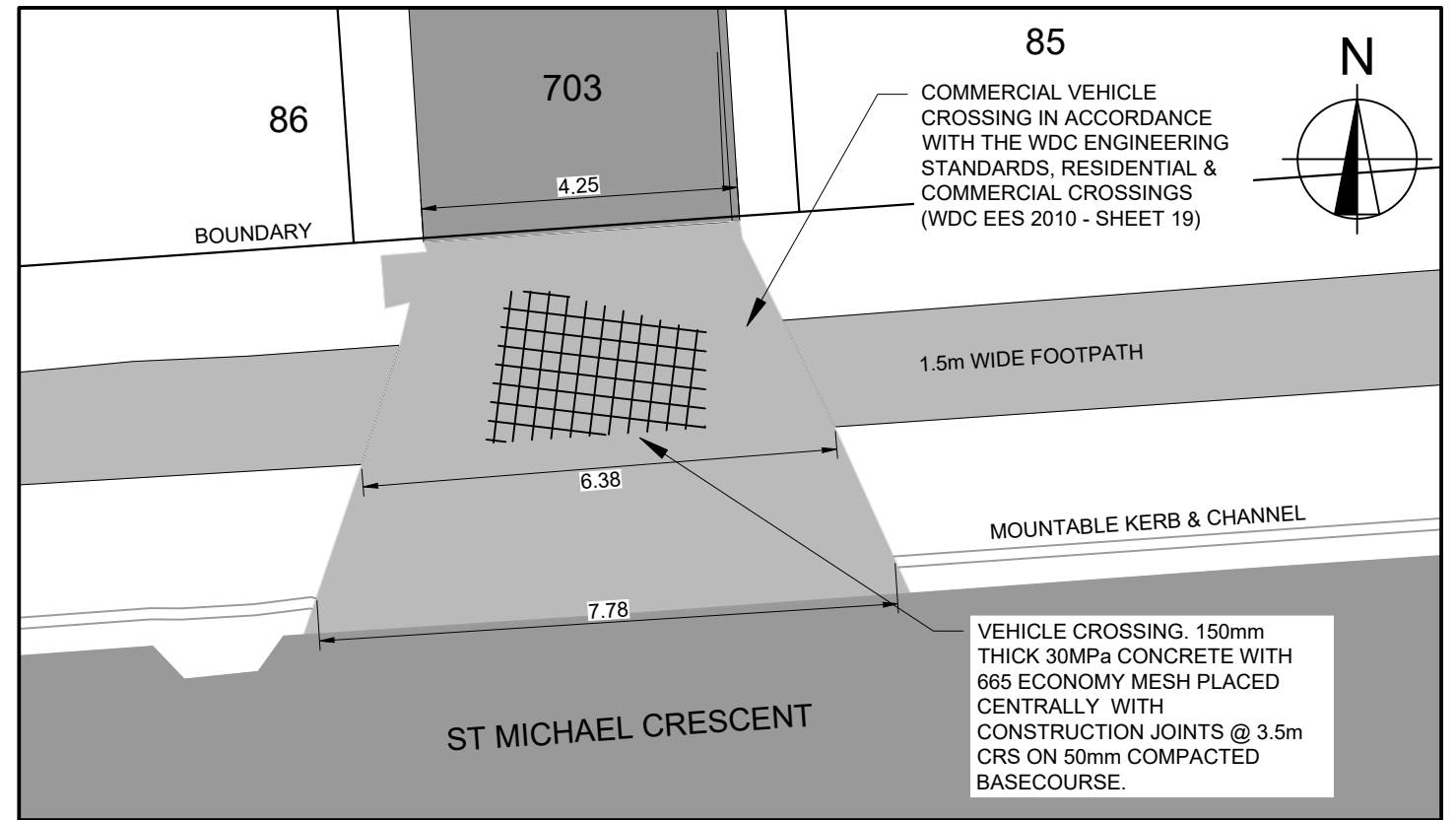
JOEL 701- VEHICLE CROSSING

SCALE 1:100 @ A3



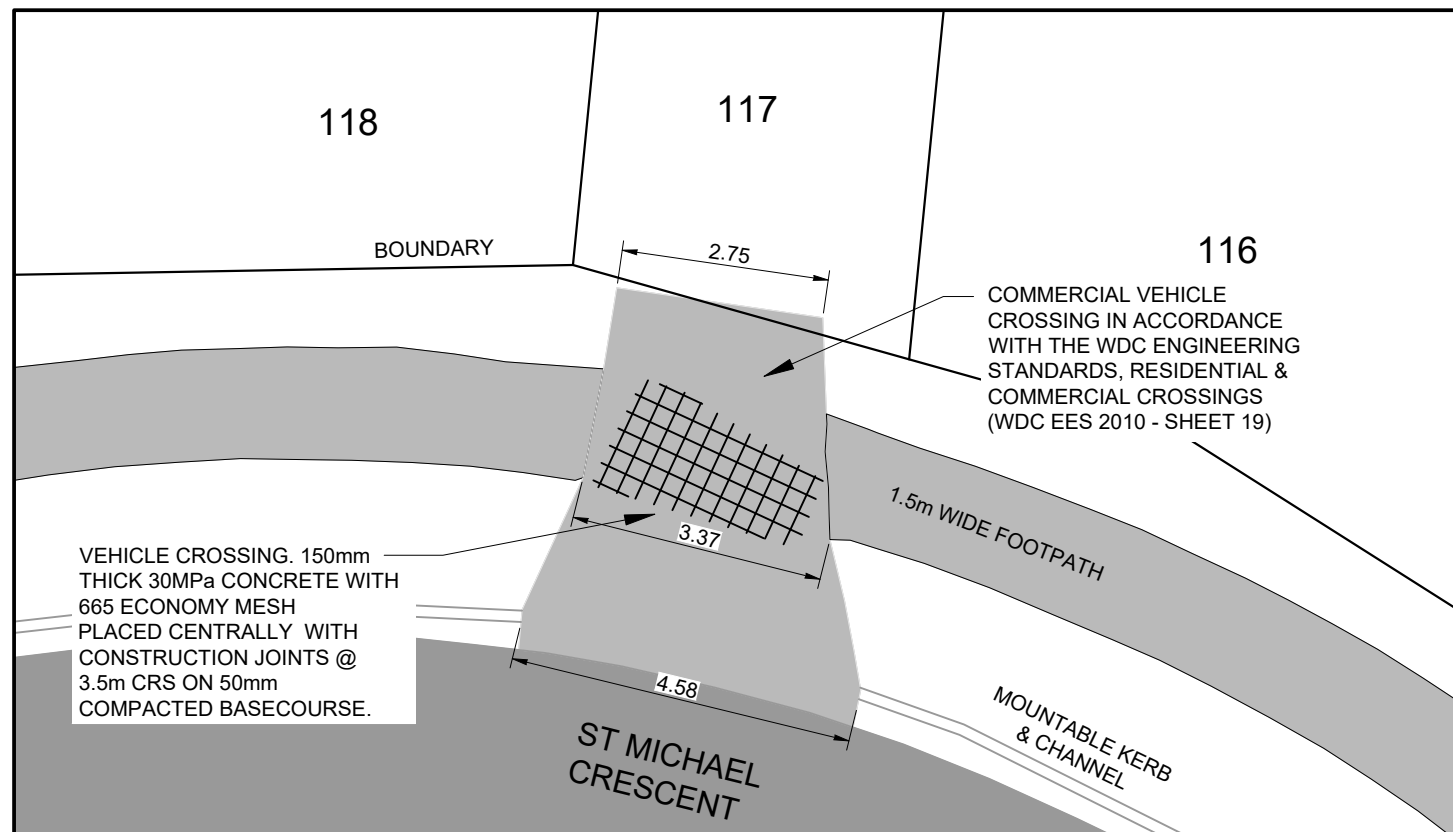
JOEL 702- VEHICLE CROSSING

SCALE 1:100 @ A3



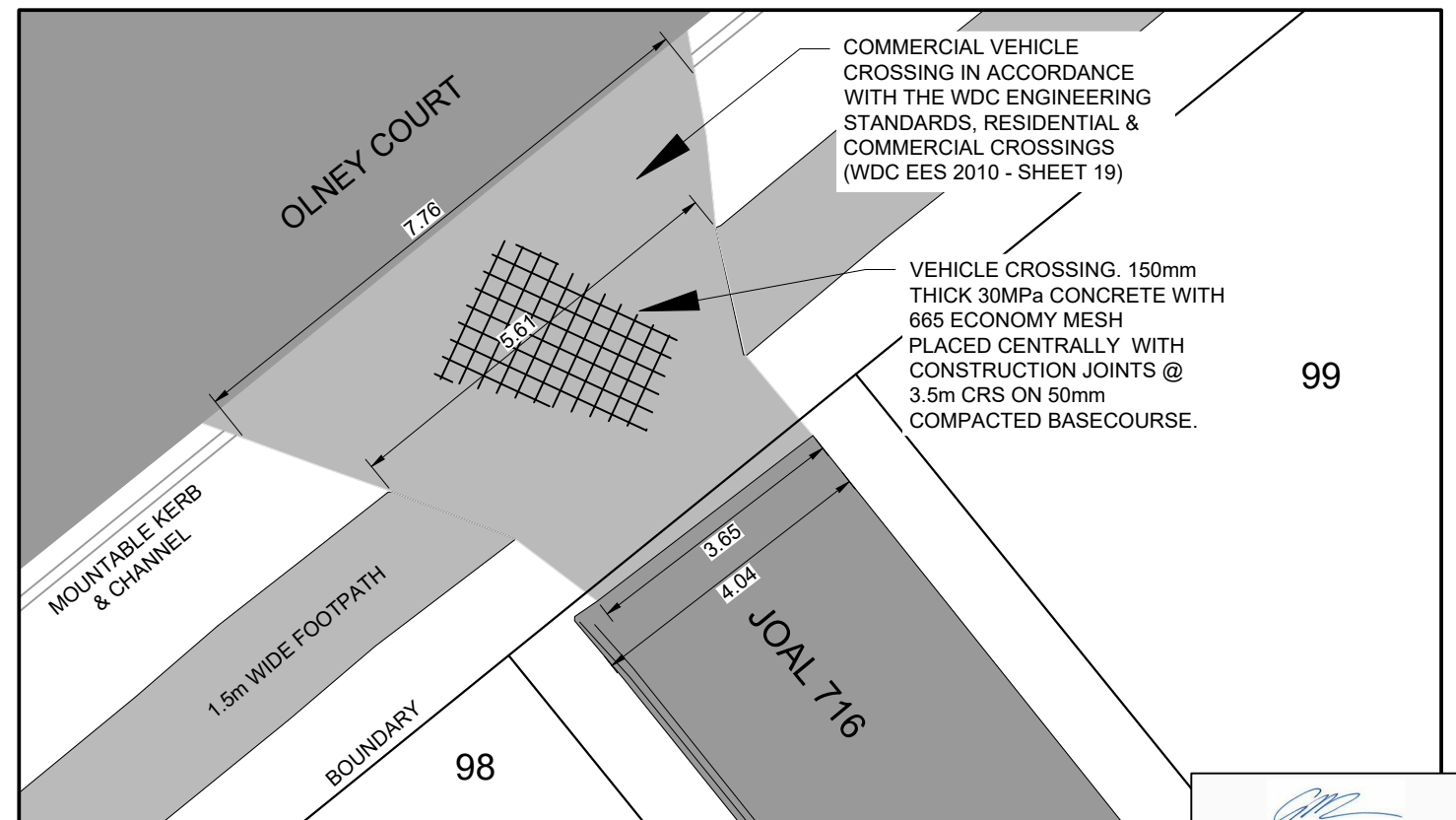
JOEL 703- VEHICLE CROSSING

SCALE 1:100 @ A3



LOT 117- VEHICLE CROSSING

SCALE 1:100 @ A3



JOEL 716- VEHICLE CROSSING

SCALE 1:100 @ A3

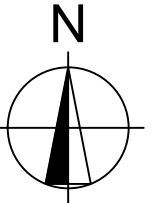
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WDC IQP#002

C		
B		
A	1ST ISSUE	26-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

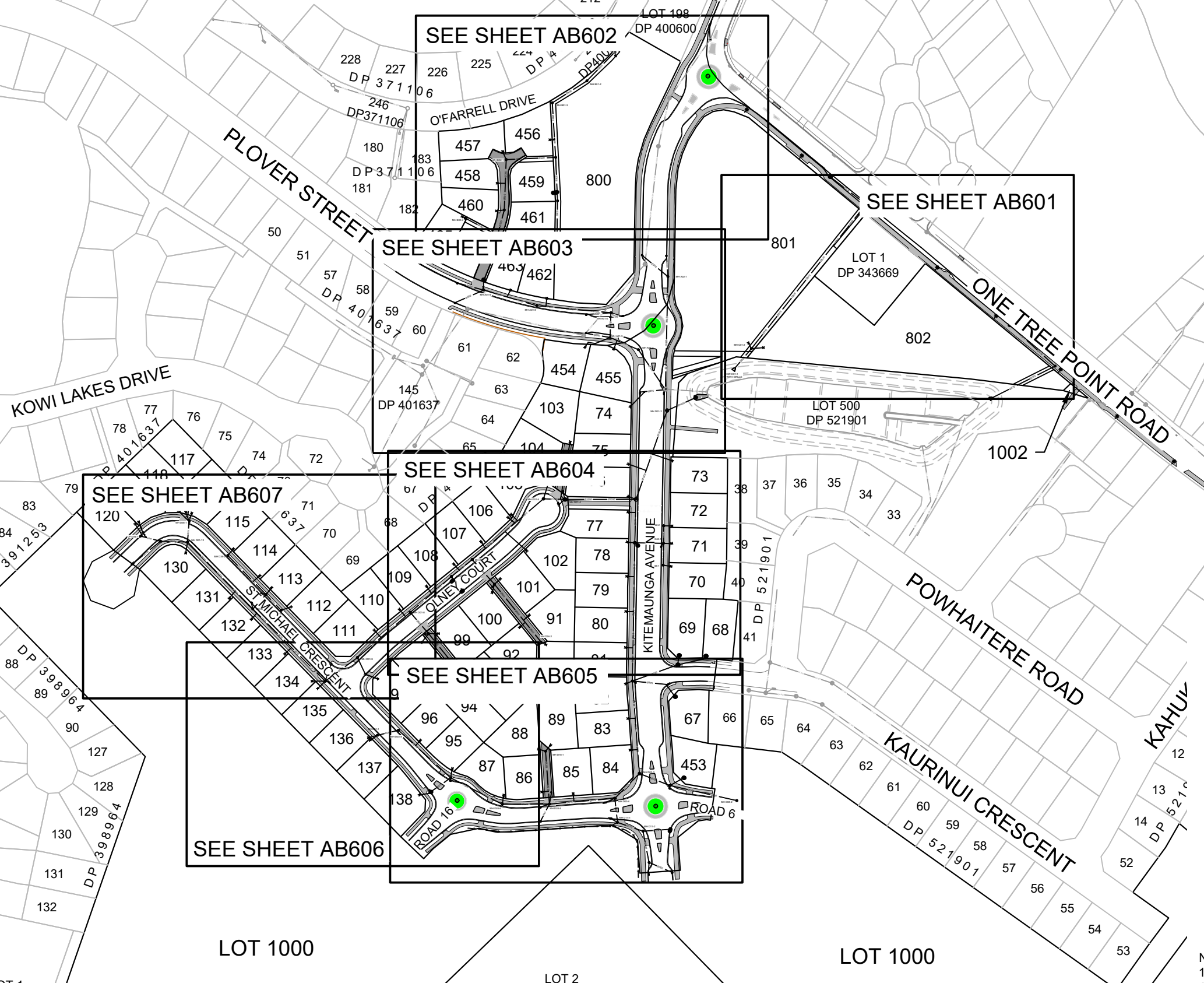
PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
VEHICLE CROSSING JOAL 702,703, & 716 AND LOT 117

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:100 @ A3		STATUS AS BUILTS
DWG NUMBER AB561			REVISION A



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WDC IQP#002



LEGEND

- EX-SW EXISTING STORMWATER
- EXISTING MANHOLES
- EXISTING CESSPITS
- Ø375 STORMWATER PIPES AS PER LONGSECTIONS
- STORMWATER CONNECTION 100mmØ
- STORMWATER HYDRUA CONCRETE MANHOLES WITH STANDARD CONCRETE LIDS
- STORMWATER HYDRUA CONCRETE CESSPITS
- END CAP

NOTE:

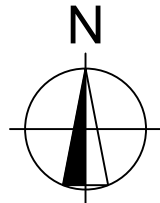
- ALL PIPES 225Ø - 450Ø ARE uPVC SN8
- ALL PIPES 525Ø AND ABOVE ARE HYDRUA RCRRJ CONCRETE
- FOR ALL LID LEVELS AND INVERT LEVELS REFER TO LONGSECTIONS AND THE ASSET REGISTER.

C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
STORMWATER PLAN - OVERVIEW

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:2500 @ A3		STATUS AS BUILTS
DWG NUMBER AB600			REVISION B



G. M.
MCGREGOR
WDC IQP#002

801

- NOTE:
1. ALL PIPES 225Ø - 450Ø ARE uPVC SN8
 2. ALL PIPES 525Ø AND ABOVE ARE HYDRUA RCRRJ CONCRETE
 3. FOR ALL LID LEVELS AND INVERT LEVELS REFER TO LONGSECTIONS AND THE ASSET REGISTER.

- LEGEND
- EX-SW ——— EXISTING STORMWATER
 - ⊙ EXISTING MANHOLES
 - ⊞ EXISTING CESSPITS
 - Ø375 — STORMWATER PIPES AS PER LONGSECTIONS
 - ✕ — STORMWATER CONNECTION 100mmØ
 - STORMWATER HYDRUA CONCRETE MANHOLES WITH STANDARD CONCRETE LIDS
 - ⊞ STORMWATER HYDRUA CONCRETE CESSPITS
 - ⊞ END CAP

ONE TREE POINT ROAD

802

CONN-C05-1
MH C01-2
CONN-C04-1
C05-1-PEG
MH-PEG
HW-C01-1 WITH GRILLE

STANDARD PRECAST HYDRUA
CONCRETE HEADWALL WITH
ROCK SCOUR PROTECTION
(100-150mmØ ROCKS) DOWN TO
PERMANENT LOW WATER LEVEL

LOT 500
DP 521901

STANDARD PRECAST HYDRUA
CONCRETE HEADWALL WITH
ROCK SCOUR PROTECTION
(100-150mmØ ROCKS) DOWN TO
PERMANENT LOW WATER LEVEL

DCP-F01-3
F01-2
F01-1

1002



C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

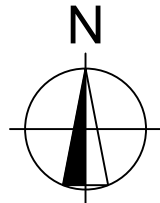
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STORMWATER LAYOUT - SHEET 1

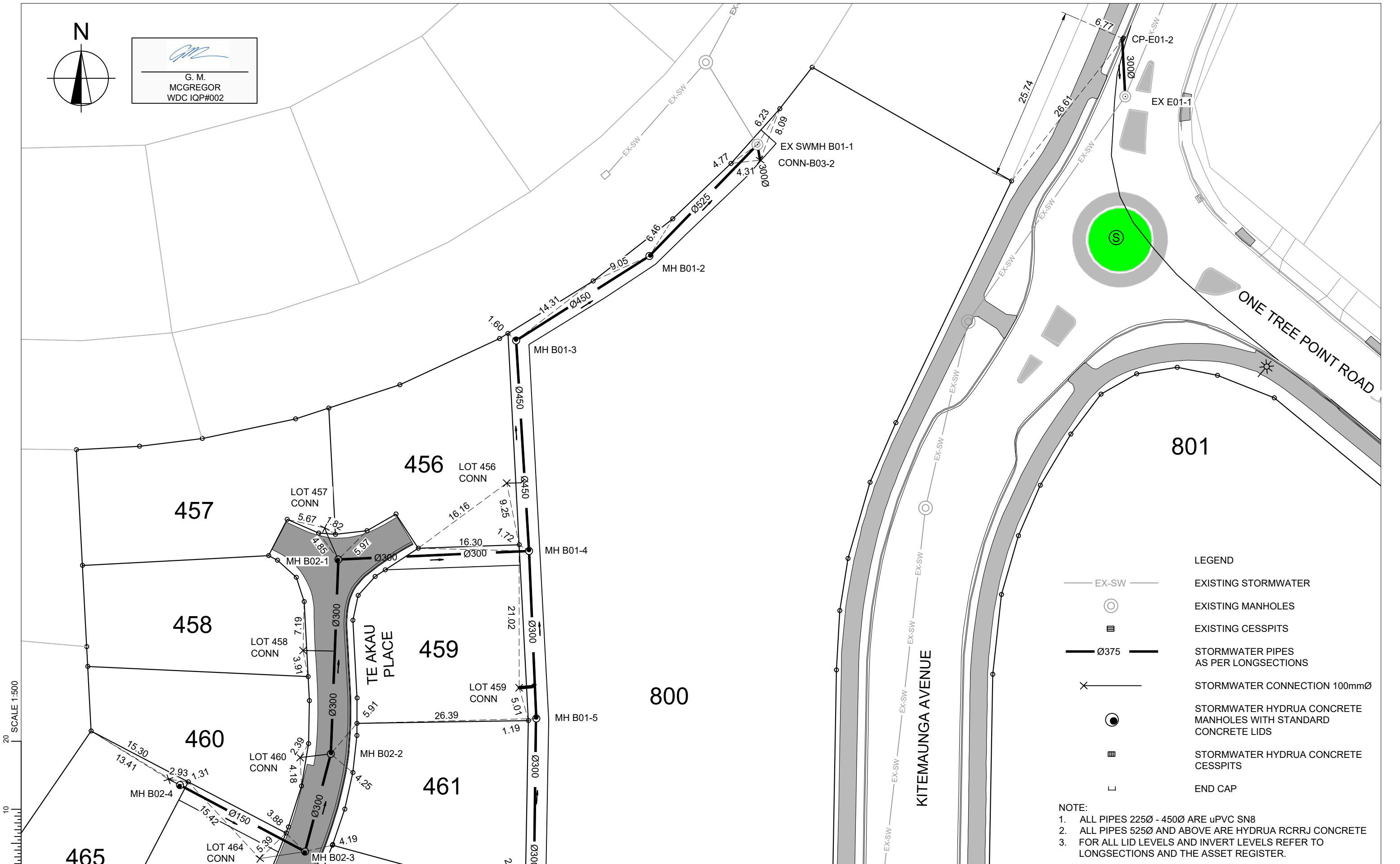
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CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB601			REVISION B

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- LEGEND
- EX-SW EXISTING STORMWATER
 - EXISTING MANHOLES
 - EXISTING CESSPITS
 - STORMWATER PIPES AS PER LONGSECTIONS
 - STORMWATER CONNECTION 100mmØ
 - STORMWATER HYDRUA CONCRETE MANHOLES WITH STANDARD CONCRETE LIDS
 - STORMWATER HYDRUA CONCRETE CESSPITS
 - END CAP

NOTE:

- ALL PIPES 225Ø - 450Ø ARE uPVC SN8
- ALL PIPES 525Ø AND ABOVE ARE HYDRUA RCRRJ CONCRETE
- FOR ALL LID LEVELS AND INVERT LEVELS REFER TO LONGSECTIONS AND THE ASSET REGISTER.



C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GmCg
A	1ST ISSUE	19-06-20 KH GmCg
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

STORMWATER LAYOUT - SHEET 2

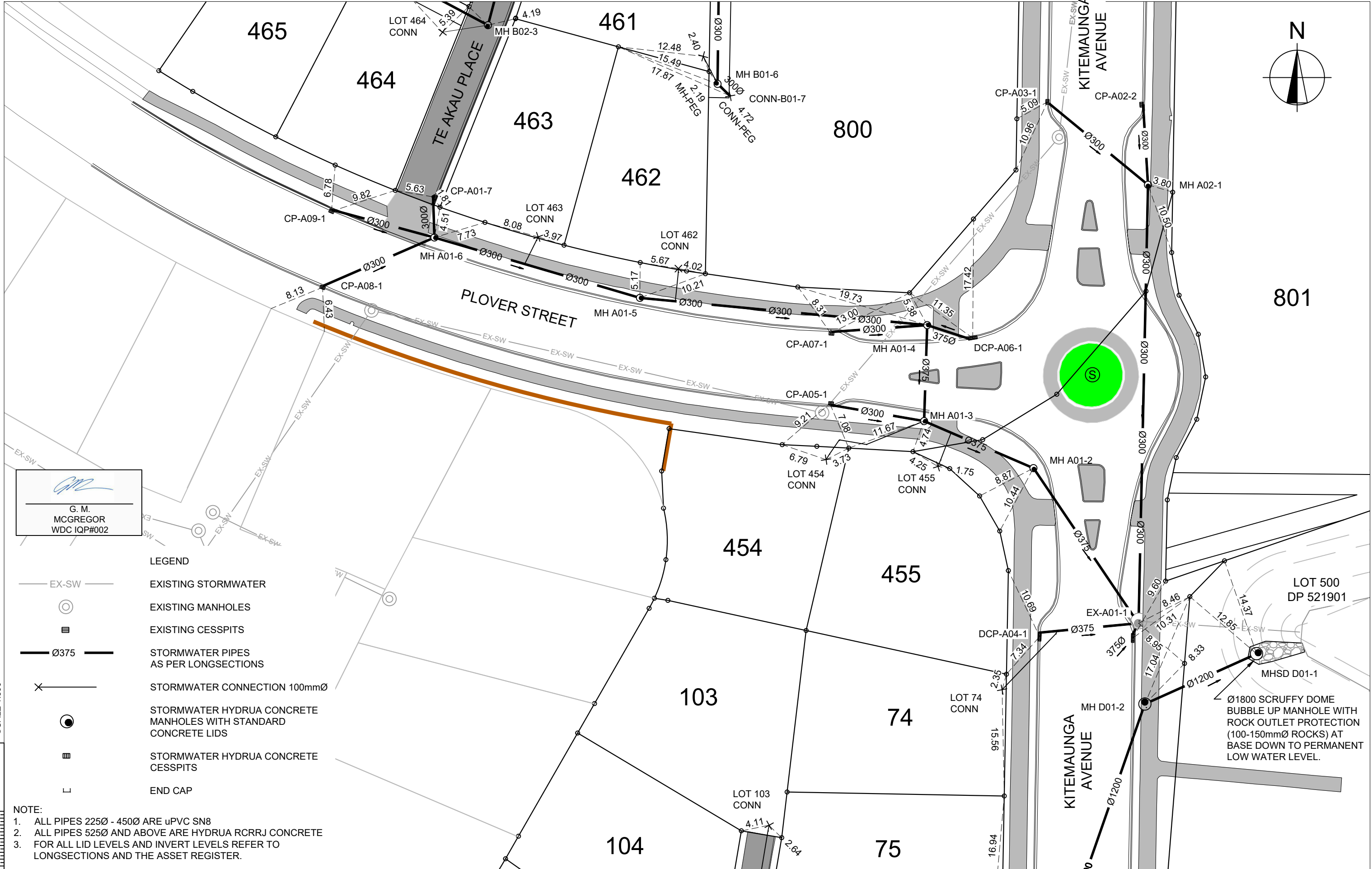
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CCL REF NO 14333-003	SCALE 1:500 @ A3	STATUS AS BUILTS	
DWG NUMBER AB602	REVISION B		

SCALE 1:500

SCALE 1:500

DATE PLOTTED: Thursday, 25 June 2020 11:25:39 a.m. FILE PATH: C:\Users\Karren\AppData\Local\Temp\BricsCAD\bp_114333-003-AB600-SW Plan.dwg

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WDC IQP#002

- LEGEND
- EX-SW EXISTING STORMWATER
 - EXISTING MANHOLES
 - EXISTING CESSPITS
 - Ø375 STORMWATER PIPES AS PER LONGSECTIONS
 - STORMWATER CONNECTION 100mmØ
 - STORMWATER HYDRUA CONCRETE MANHOLES WITH STANDARD CONCRETE LIDS
 - STORMWATER HYDRUA CONCRETE CESSPITS
 - END CAP

- NOTE:
- ALL PIPES 225Ø - 450Ø ARE uPVC SN8
 - ALL PIPES 525Ø AND ABOVE ARE HYDRUA RCRRJ CONCRETE
 - FOR ALL LID LEVELS AND INVERT LEVELS REFER TO LONGSECTIONS AND THE ASSET REGISTER.

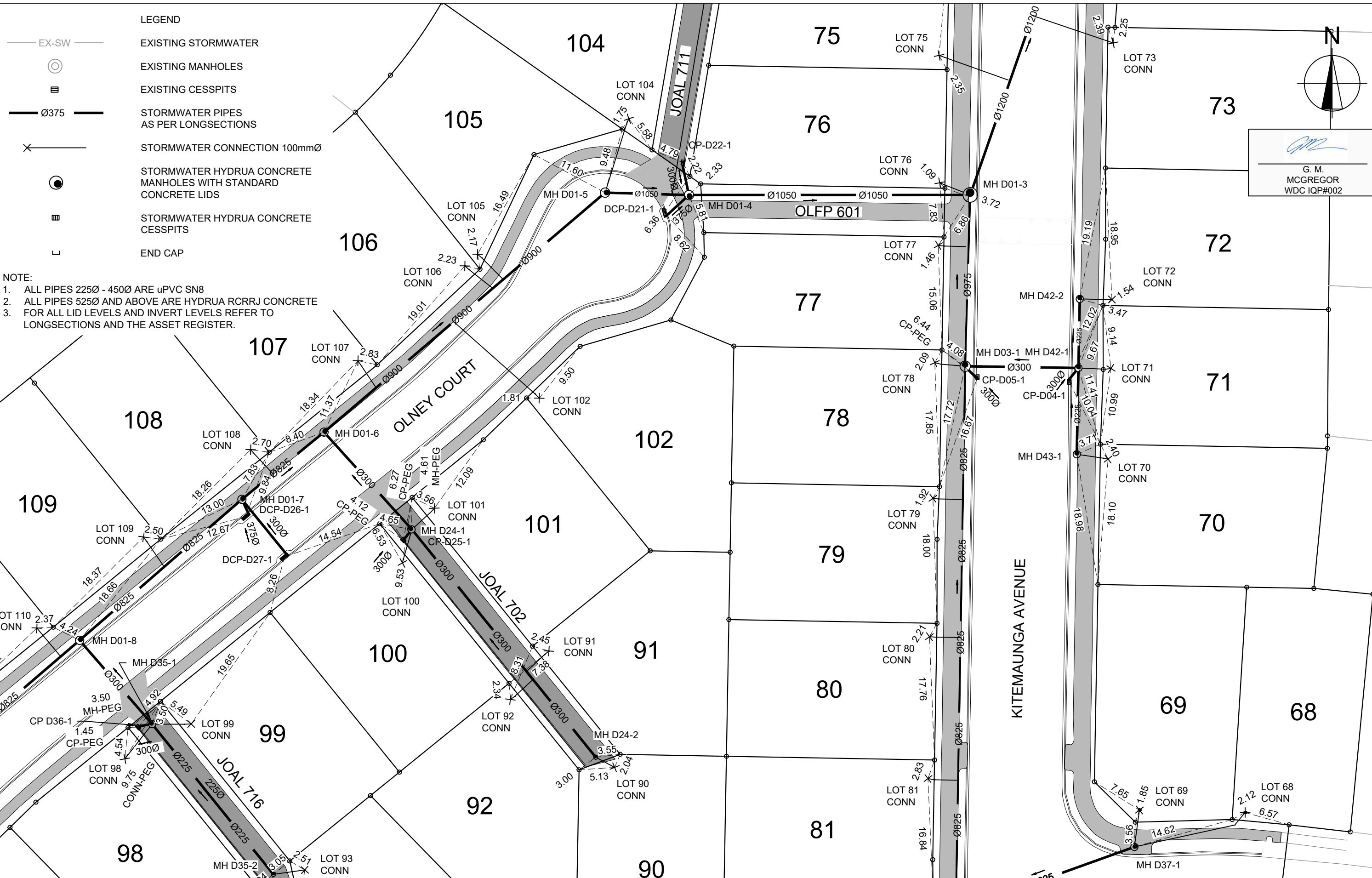


C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILT ONE TREE POINT RUAKAKA

TITLE
STORMWATER LAYOUT - SHEET 3

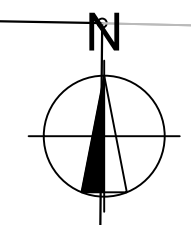
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CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB603			REVISION B



- LEGEND
- EX-SW EXISTING STORMWATER
 - EXISTING MANHOLES
 - EXISTING CESSPITS
 - STORMWATER PIPES AS PER LONGSECTIONS
 - STORMWATER CONNECTION 100mmØ
 - STORMWATER HYDRUA CONCRETE MANHOLES WITH STANDARD CONCRETE LIDS
 - STORMWATER HYDRUA CONCRETE CESSPITS
 - END CAP

NOTE:

- ALL PIPES 225Ø - 450Ø ARE uPVC SN8
- ALL PIPES 525Ø AND ABOVE ARE HYDRUA RCRRJ CONCRETE
- FOR ALL LID LEVELS AND INVERT LEVELS REFER TO LONGSECTIONS AND THE ASSET REGISTER.



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B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

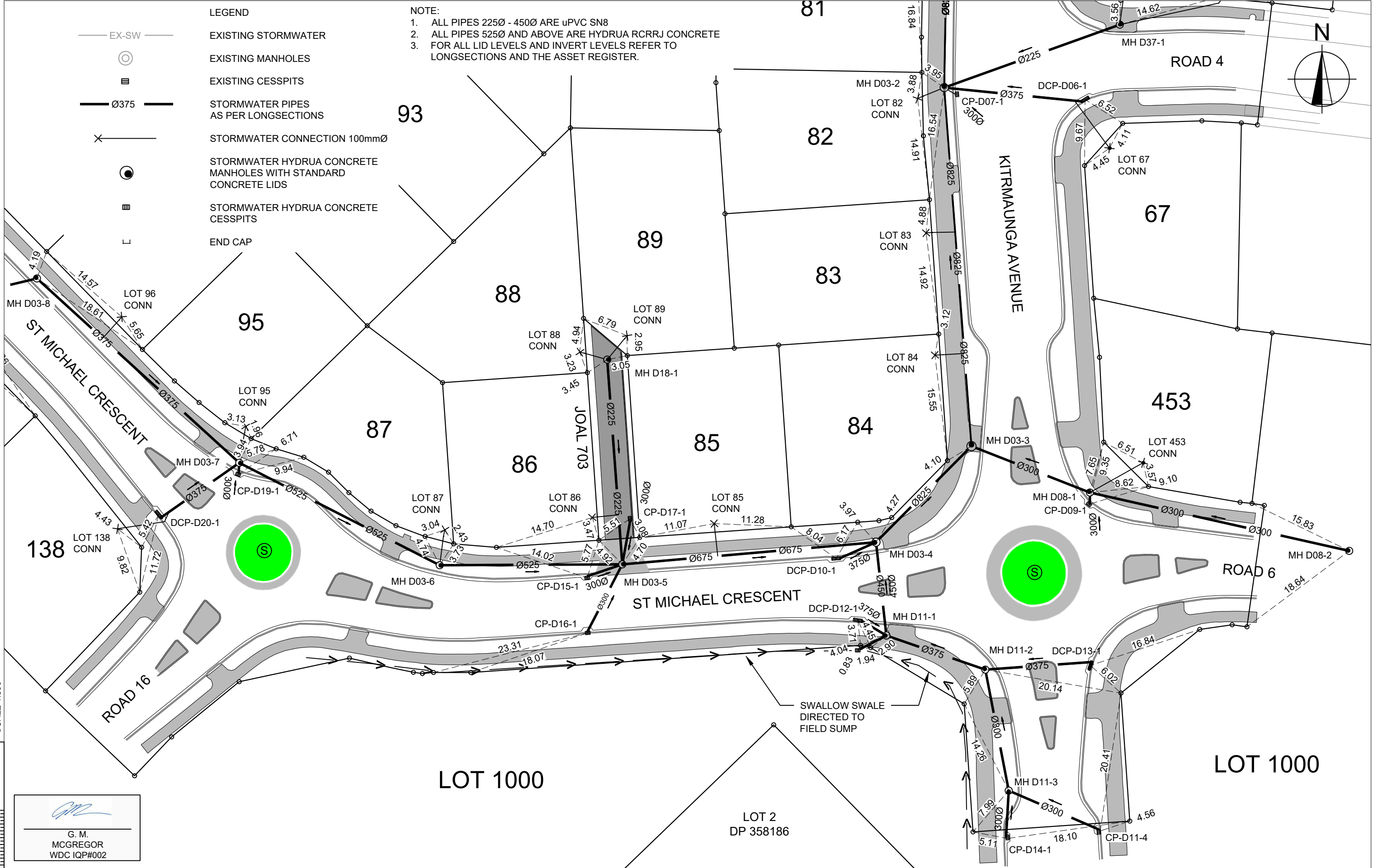
PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

STORMWATER LAYOUT - SHEET 4

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB604			REVISION B



- LEGEND
- EX-SW
 - EXISTING STORMWATER
 - EXISTING MANHOLES
 - EXISTING CESSPITS
 - STORMWATER PIPES AS PER LONGSECTIONS
 - STORMWATER CONNECTION 100mmØ
 - STORMWATER HYDRUA CONCRETE MANHOLES WITH STANDARD CONCRETE LIDS
 - STORMWATER HYDRUA CONCRETE CESSPITS
 - END CAP

- NOTE:
- 1. ALL PIPES 225Ø - 450Ø ARE uPVC SN8
 - 2. ALL PIPES 525Ø AND ABOVE ARE HYDRUA RCRRJ CONCRETE
 - 3. FOR ALL LID LEVELS AND INVERT LEVELS REFER TO LONGSECTIONS AND THE ASSET REGISTER.

0 10 20 SCALE 1:500

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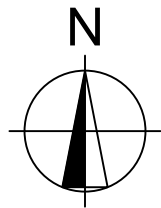
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C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
STORMWATER LAYOUT - SHEET 5

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB605			REVISION B



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LEGEND

- EX-SW EXISTING STORMWATER
- EXISTING MANHOLES
- EXISTING CESSPITS
- Ø375 STORMWATER PIPES AS PER LONGSECTIONS
- STORMWATER CONNECTION 100mmØ
- STORMWATER HYDRUA CONCRETE MANHOLES WITH STANDARD CONCRETE LIDS
- STORMWATER HYDRUA CONCRETE CESSPITS
- END CAP

- NOTE:
- ALL PIPES 225Ø - 450Ø ARE uPVC SN8
 - ALL PIPES 525Ø AND ABOVE ARE HYDRUA RCRRJ CONCRETE
 - FOR ALL LID LEVELS AND INVERT LEVELS REFER TO LONGSECTIONS AND THE ASSET REGISTER.



C		
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A	1ST ISSUE	19-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

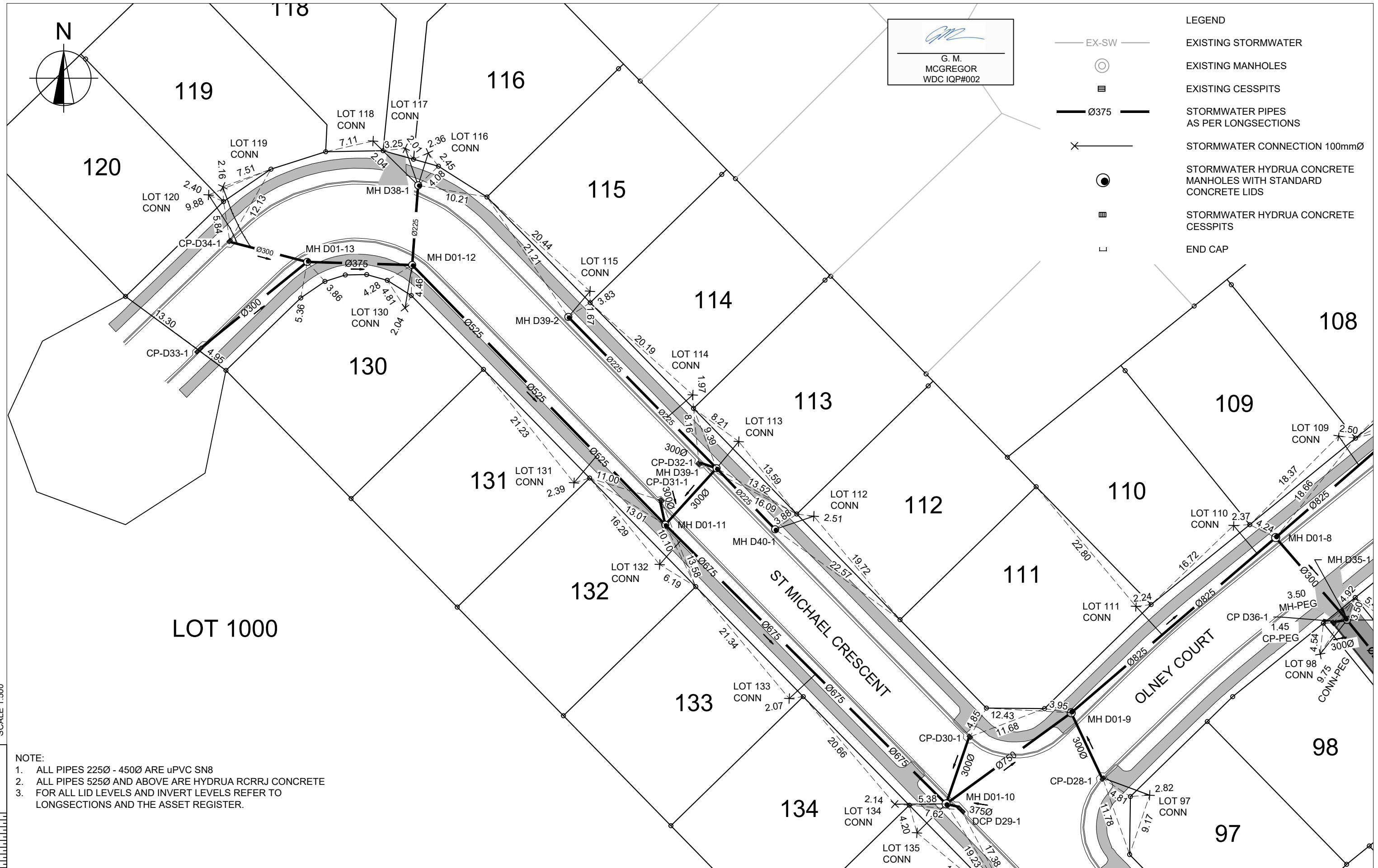
PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

STORMWATER LAYOUT - SHEET 6

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB606			REVISION B



NOTE:
1. ALL PIPES 225Ø - 450Ø ARE uPVC SN8
2. ALL PIPES 525Ø AND ABOVE ARE HYDRUA RCRRJ CONCRETE
3. FOR ALL LID LEVELS AND INVERT LEVELS REFER TO LONGSECTIONS AND THE ASSET REGISTER.

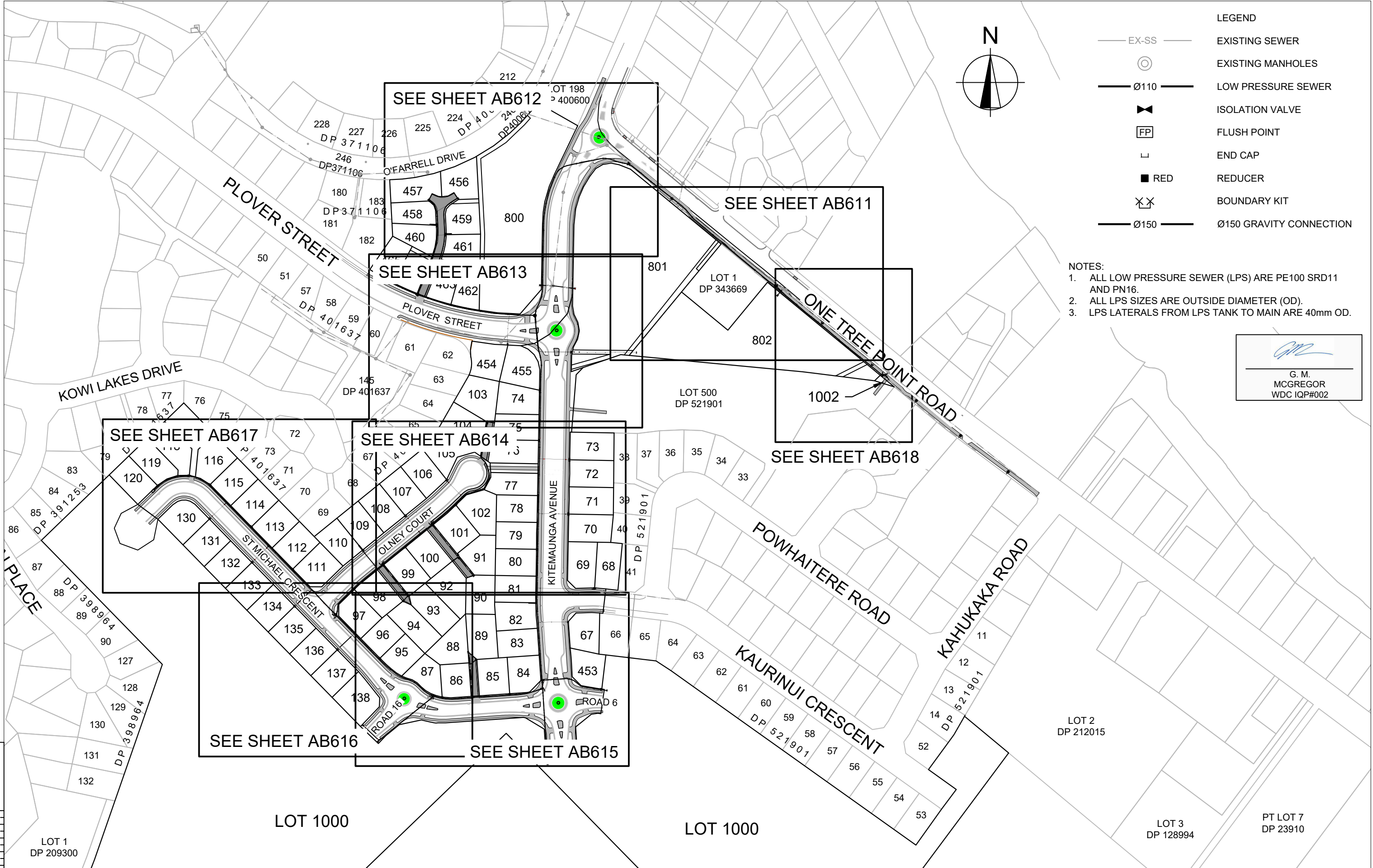


C		
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG
A	1ST ISSUE	19-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
STORMWATER LAYOUT - SHEET 6

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB607			REVISION B



LEGEND

EX-SS

EXISTING SEWER

EXISTING MANHOLES

$\varnothing 110$

LOW PRESSURE SEWER

ISOLATION VALVE

FLUSH POINT

END CAP

REDUCER

BOUNDARY KIT

$\varnothing 150$

$\varnothing 150$ GRAVITY CONNECTION

- NOTES:
- ALL LOW PRESSURE SEWER (LPS) ARE PE100 SRD11 AND PN16.
 - ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
 - LPS LATERALS FROM LPS TANK TO MAIN ARE 40mm OD.

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REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
SANITARY SEWER PLAN - OVERVIEW

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:2500 @ A3		STATUS AS BUILTS
DWG NUMBER AB610			REVISION B

801

ONE TREE POINT ROAD

LOT 1
DP 343669

802

ONE TREE POINT ROAD

Ø150mm
GRAVITY
SEWER
CONNECTION

- LEGEND
- EX-SS EXISTING SEWER
 - EXISTING MANHOLES
 - Ø110 LOW PRESSURE SEWER
 - ISOLATION VALVE
 - FP FLUSH POINT
 - END CAP
 - RED REDUCER
 - BOUNDARY KIT
 - Ø150 GRAVITY CONNECTION

- NOTES:
- ALL LOW PRESSURE SEWER (LPS) ARE PE100 SRD11 AND PN16.
 - ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
 - LPS LATERALS FROM LPS TANK TO MAIN ARE 40mm OD.

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SCALE 1:500

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11.73
3.20

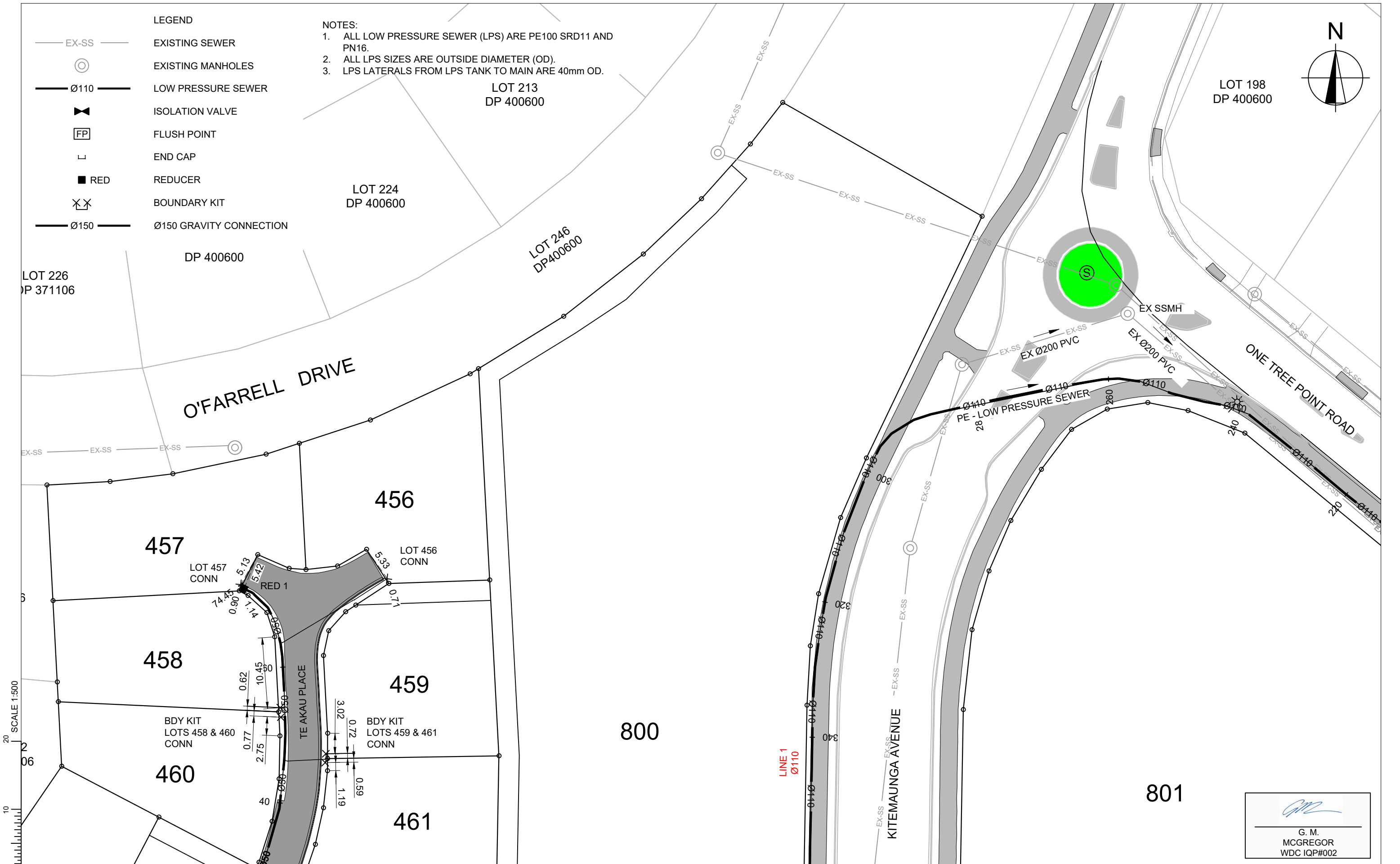
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A	1ST ISSUE	19-06-2020 KH GM
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
SANITARY SEWER LAYOUT - SHEET 1

DATE CREATED 19-06-2020		DRAWN K HANSARD		DESIGNED -		APPROVED G MCGREGOR	
CCL REF NO 14333-003		SCALE 1:500 @ A3			STATUS AS BUILTS		
DWG NUMBER AB611					REVISION B		



LEGEND

EX-SS

EXISTING SEWER

EXISTING MANHOLES

LOW PRESSURE SEWER

ISOLATION VALVE

FLUSH POINT

END CAP

REDUCER

BOUNDARY KIT

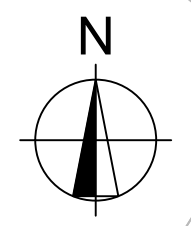
Ø150 GRAVITY CONNECTION

- NOTES:
1.

ALL LOW PRESSURE SEWER (LPS) ARE PE100 SRD11 AND PN16.
2.

ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
3.

LPS LATERALS FROM LPS TANK TO MAIN ARE 40mm OD.



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SCALE 1:500

C			
B	AS BUILT REVISED FOR WDC	26-06-20	KH GMcG
A	1ST ISSUE	19-06-2020	KH GM
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED

THE LANDING - STAGE 3 AS BUILTS

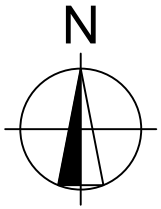
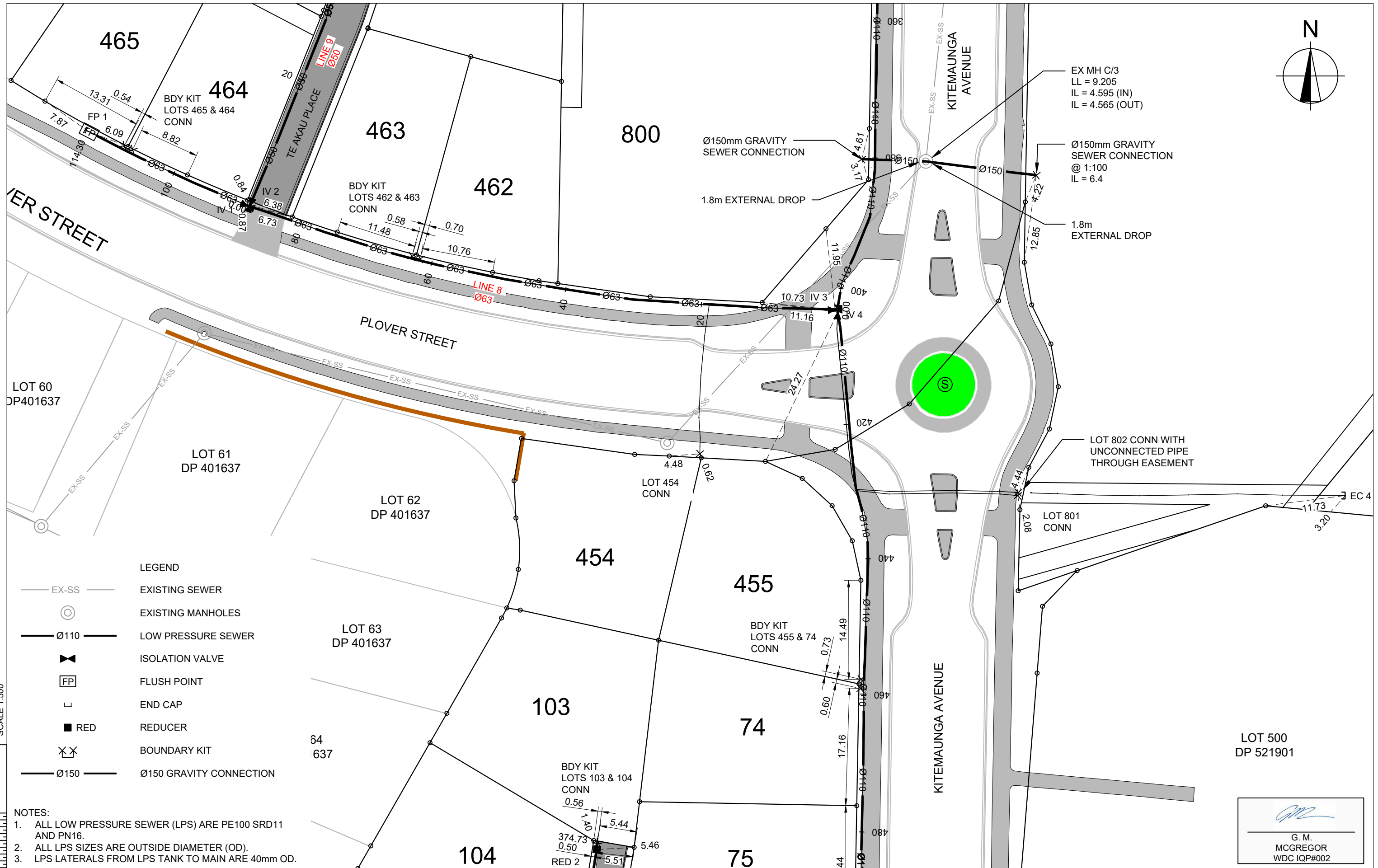
ONE TREE POINT

RUAKAKA

TITLE


SANITARY SEWER LAYOUT - SHEET 2

DATE CREATED	19-06-2020	DRAWN	K HANSARD	DESIGNED	-	APPROVED	G McGREGOR
CCL REF NO	14333-003	SCALE	1:500 @ A3		STATUS	AS BUILTS	
DWG NUMBER	AB612				REVISION	B	



- LEGEND
- EX-SS EXISTING SEWER
 - EXISTING MANHOLES
 - Ø110 LOW PRESSURE SEWER
 - ISOLATION VALVE
 - FP FLUSH POINT
 - END CAP
 - RED REDUCER
 - BOUNDARY KIT
 - Ø150 Ø150 GRAVITY CONNECTION

- NOTES:
1. ALL LOW PRESSURE SEWER (LPS) ARE PE100 SRD11 AND PN16.
 2. ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
 3. LPS LATERALS FROM LPS TANK TO MAIN ARE 40mm OD.

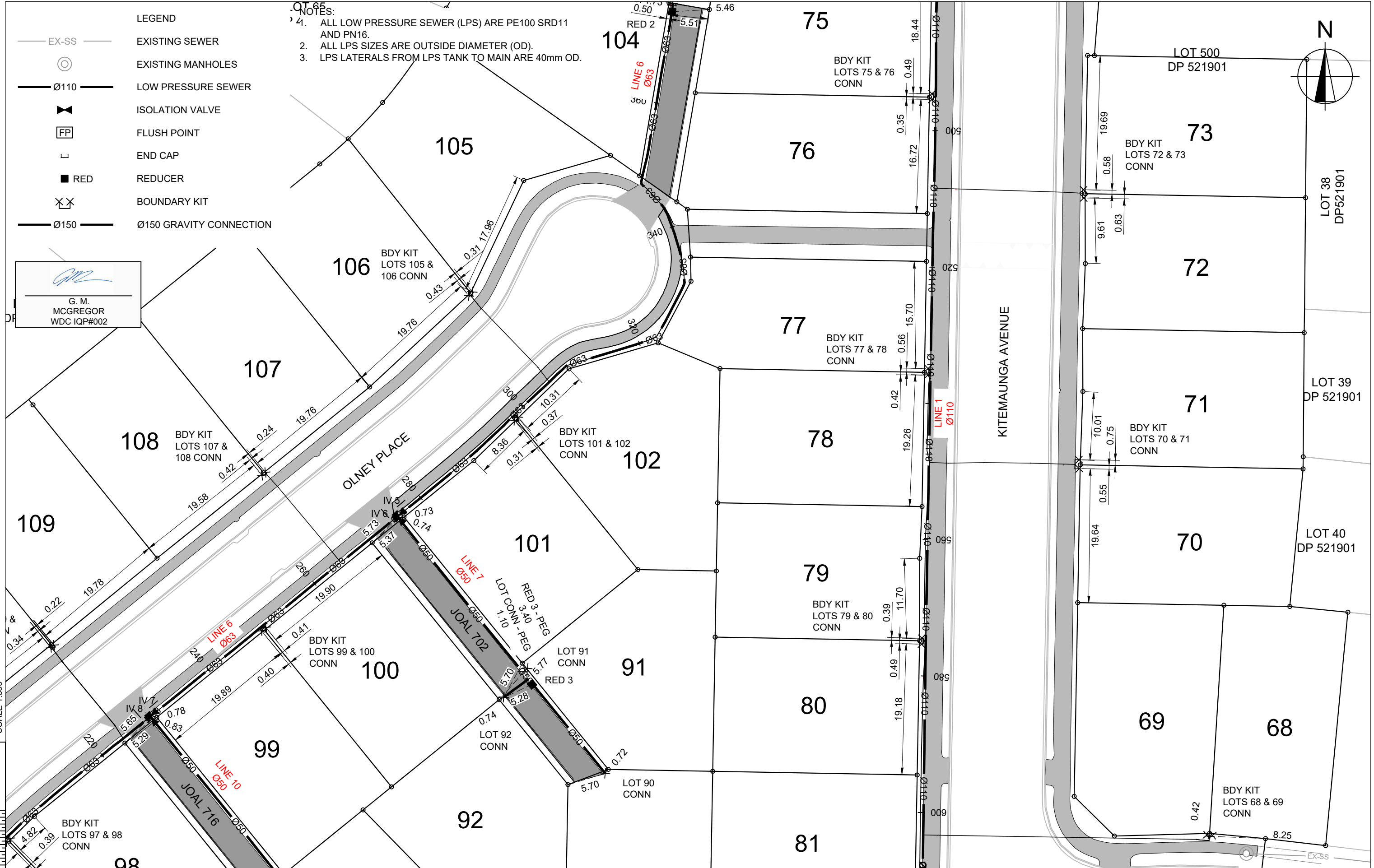



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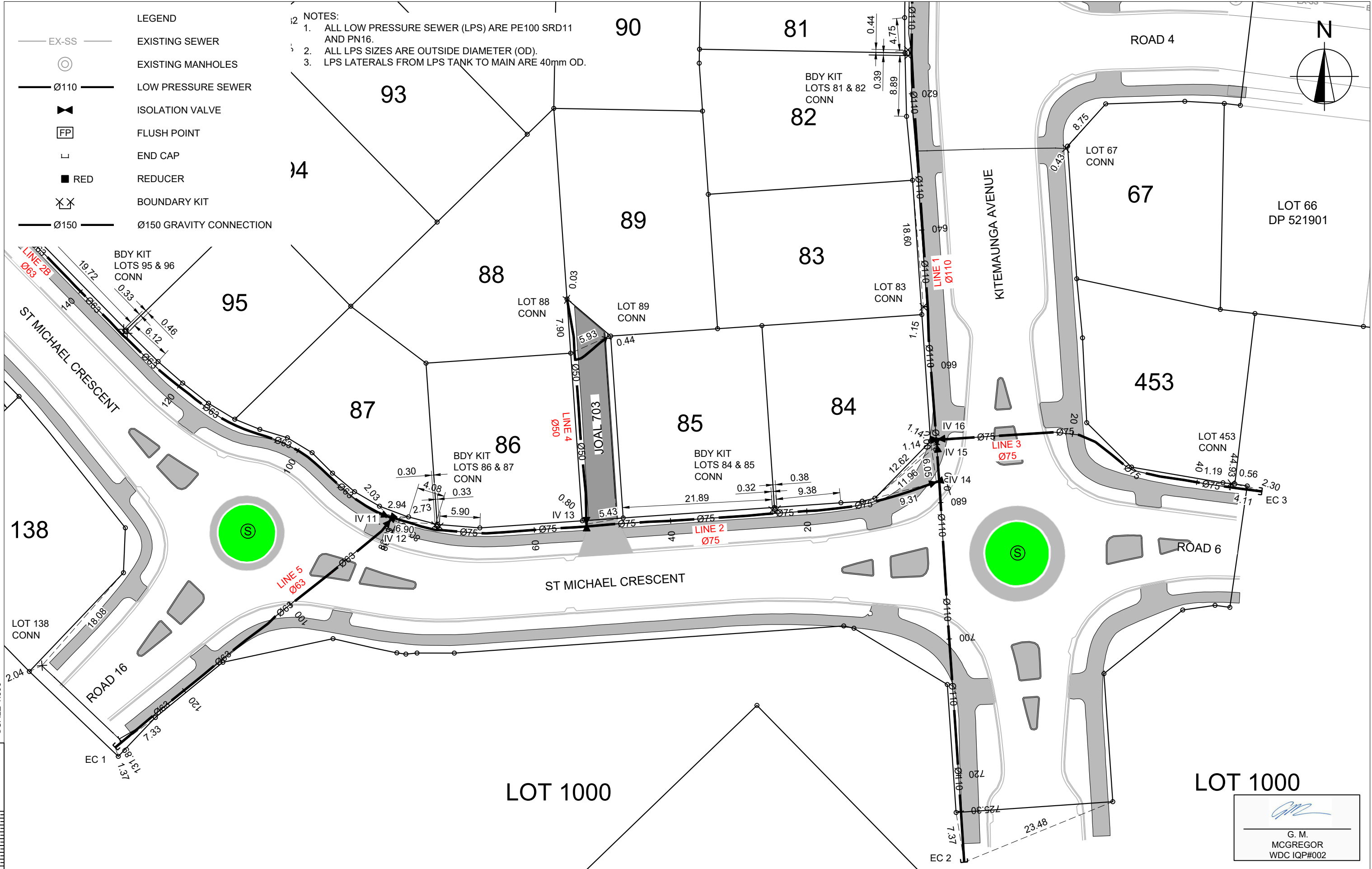
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B	AS BUILT REVISED FOR WDC	26-06-20	WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA	SANITARY SEWER LAYOUT - SHEET 3	CCL REF NO 14333-003	SCALE 1:500 @ A3	STATUS AS BUILTS	REVISION B
A	1ST ISSUE	19-06-2020			DWG NUMBER AB613			
REV.	REVISION DETAILS	DRAWN APP.						


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	B	AS BUILT REVISED FOR WDC				26-06-20	CCL REF NO 14333-003	SCALE 1:500 @ A3	STATUS AS BUILTS	
	A	1ST ISSUE				19-06-2020	DWG NUMBER AB614	REVISION B		
	REV.	REVISION DETAILS								





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A	1ST ISSUE	KH	GM

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

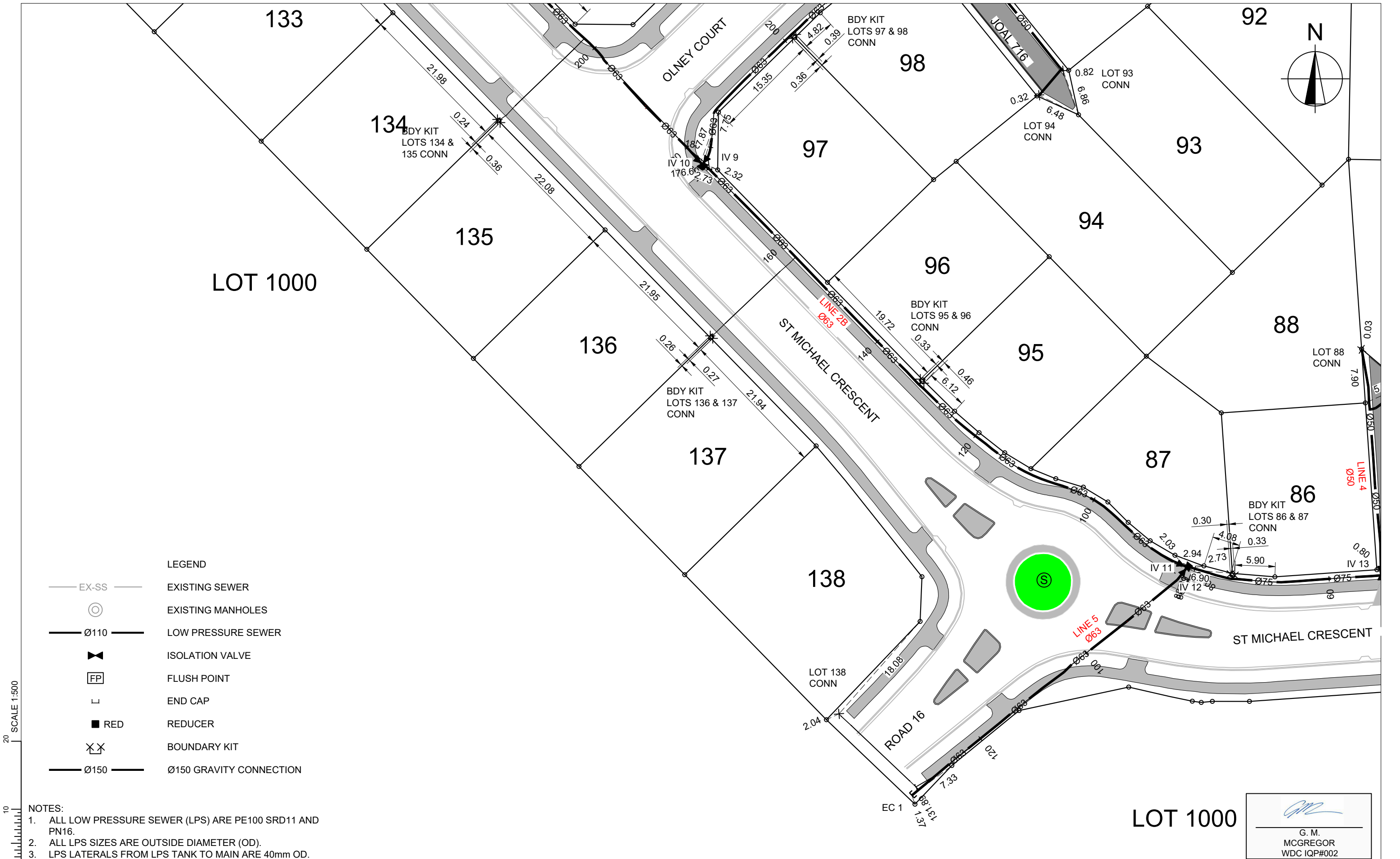
TITLE

SANITARY SEWER LAYOUT - SHEET 5

DATE CREATED	DRAWN	DESIGNED	APPROVED
19-06-2020	K HANSARD	-	G MCGREGOR
CCL REF NO	SCALE	STATUS	
14333-003	1:500 @ A3	AS BUILTS	
DWG NUMBER	REVISION		
AB615	B		

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- LEGEND
- EX-SS EXISTING SEWER
 - EXISTING MANHOLES
 - Ø110 LOW PRESSURE SEWER
 - ISOLATION VALVE
 - FP FLUSH POINT
 - END CAP
 - RED REDUCER
 - BOUNDARY KIT
 - Ø150 Ø150 GRAVITY CONNECTION

- NOTES:
- ALL LOW PRESSURE SEWER (LPS) ARE PE100 SRD11 AND PN16.
 - ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
 - LPS LATERALS FROM LPS TANK TO MAIN ARE 40mm OD.

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C			PROJECT DETAILS	TITLE	DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
B	AS BUILT REVISED FOR WDC	26-06-20 KH GMcG	WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA	SANITARY SEWER LAYOUT - SHEET 3	CCL REF NO 14333-003	SCALE 1:500 @ A3	STATUS AS BUILTS	
A	1ST ISSUE	19-06-2020 KH GM			DWG NUMBER AB616	REVISION B		
REV.	REVISION DETAILS	DRAWN APP.	DATE PLOTTED: Thursday, 25 June 2020 11:25:46 a.m. FILE PATH: C:\Users\Karren\AppData\Local\Temp\BricsCAD\bp_1\14333-003-AB610-SS Plan.dwg					

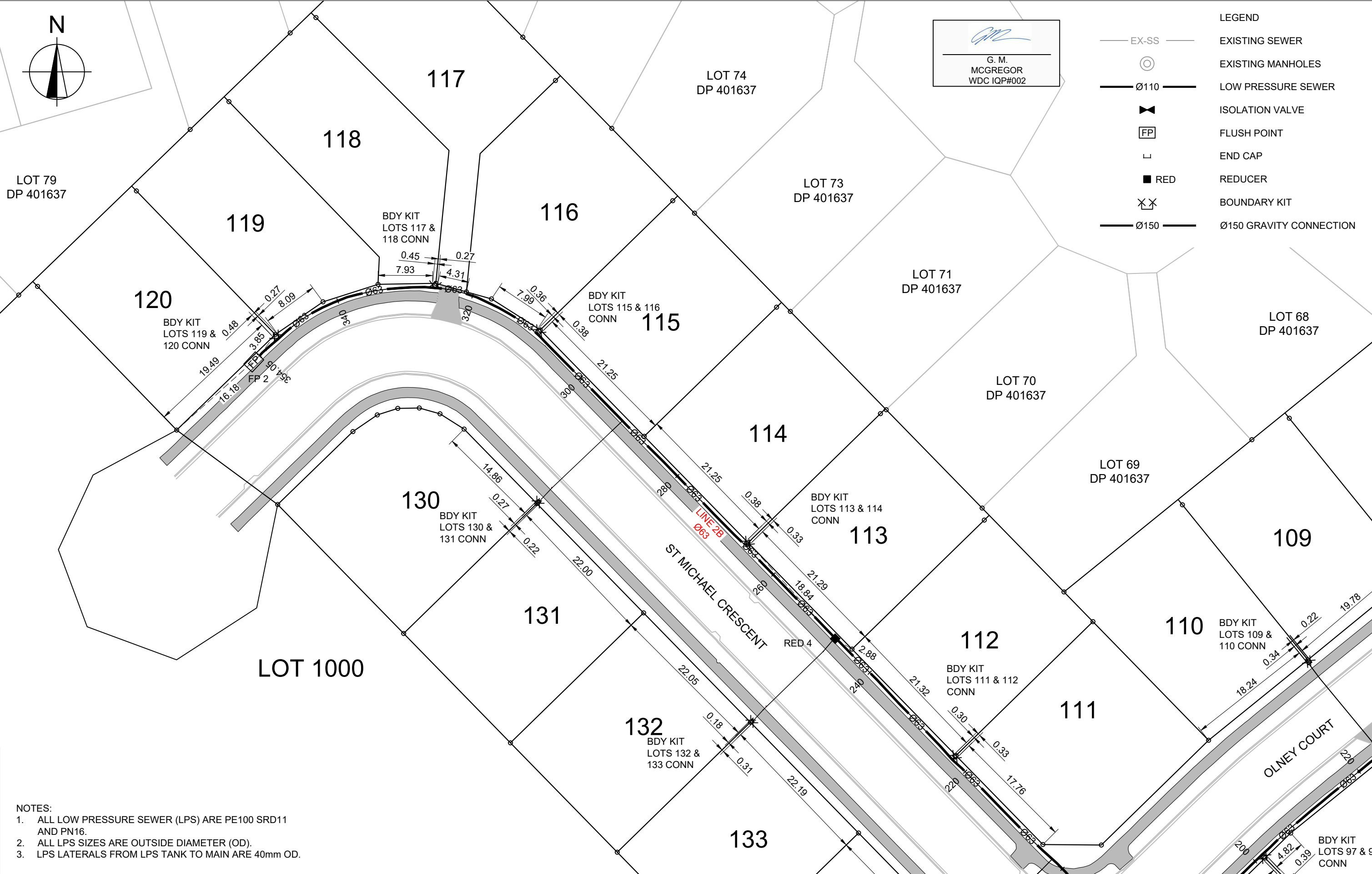
SCALE 1:500

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SCALE 1:500

0 10 20

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NOTES:
1. ALL LOW PRESSURE SEWER (LPS) ARE PE100 SRD11 AND PN16.
2. ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
3. LPS LATERALS FROM LPS TANK TO MAIN ARE 40mm OD.

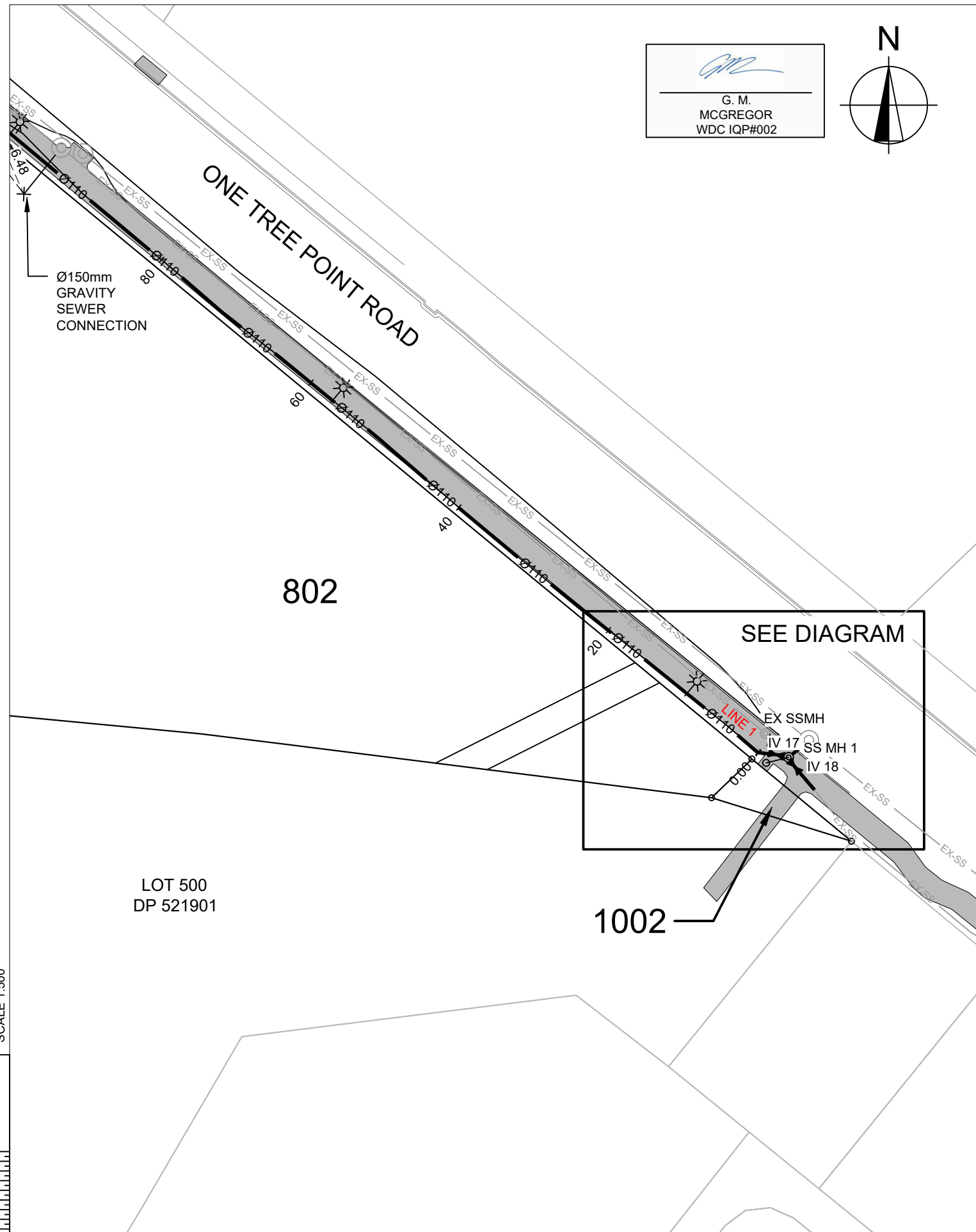


C			
B	AS BUILT REVISED FOR WDC	26-06-20	KH GMcG
A	1ST ISSUE	19-06-2020	KH GM
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

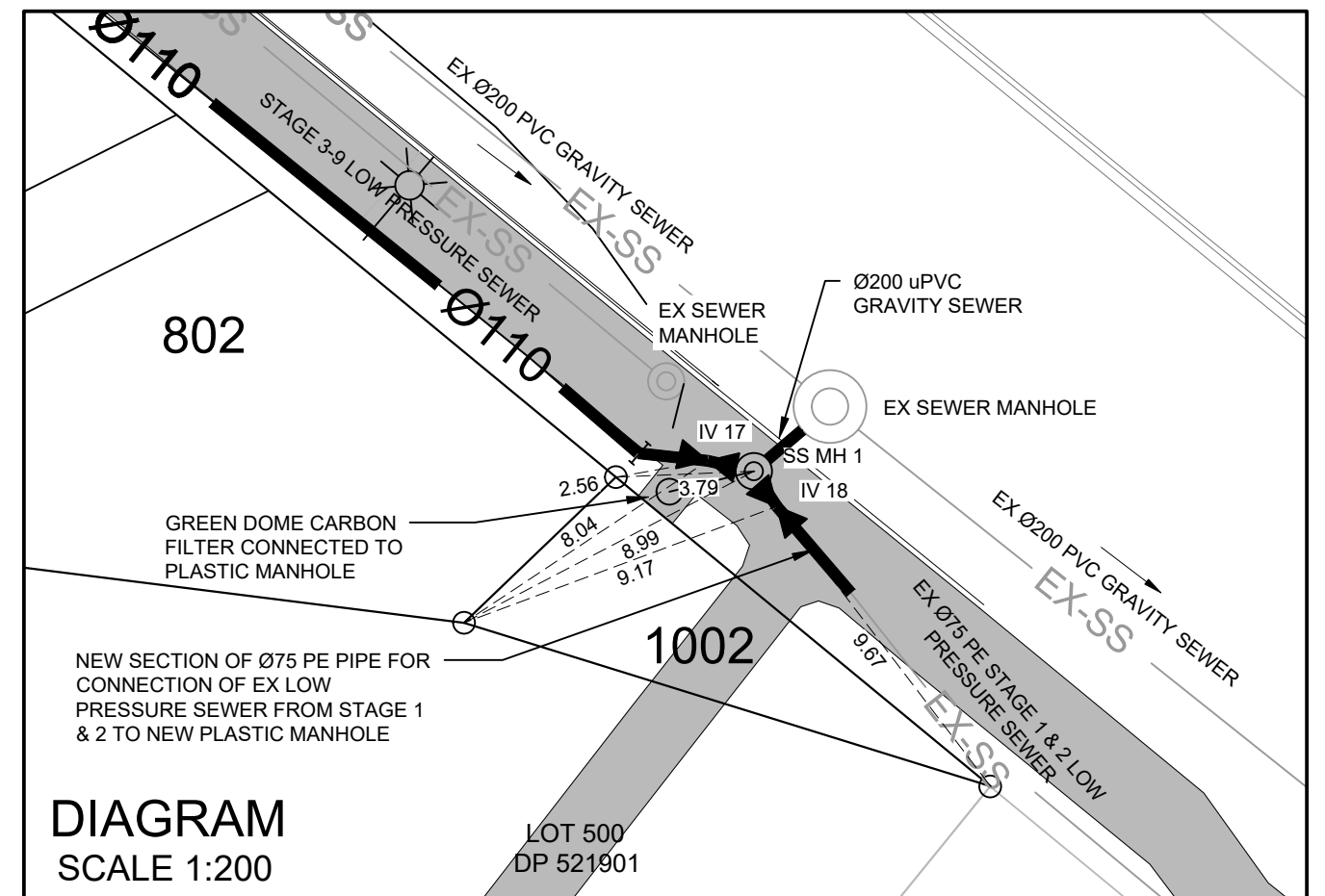
TITLE
SANITARY SEWER LAYOUT - SHEET 7

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB617			REVISION B




- NOTES:
1. ALL LOW PRESSURE SEWER (LPS) ARE PE100 SRD11 AND PN16.
 2. ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
 3. LPS LATERALS FROM LPS TANK TO MAIN ARE 40mm OD.

LEGEND	
— EX-SS —	EXISTING SEWER
⊙	EXISTING MANHOLES
— Ø110 —	LOW PRESSURE SEWER
⋈	ISOLATION VALVE
FP	FLUSH POINT
└	END CAP
■ RED	REDUCER
⊗	BOUNDARY KIT
— Ø150 —	Ø150 GRAVITY CONNECTION



REV.	REVISION DETAILS	DRAWN	APP.
C			
B	AS BUILT REVISED FOR WDC	KH	GMcG
A	1ST ISSUE	KH	GM

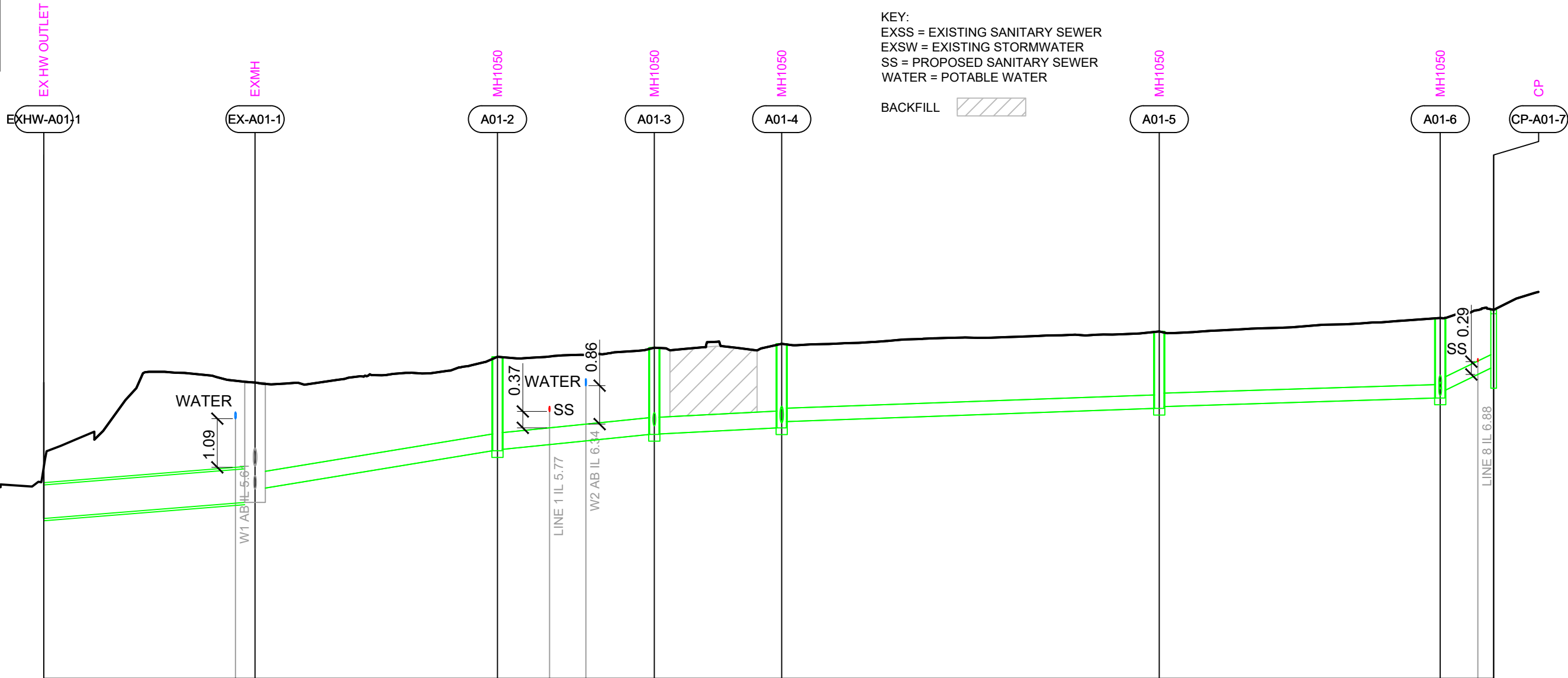
DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB618			REVISION B



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MCGREGOR
WDC IQP#002

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL 



Pipe Size/Type

Grade (%)

Datum

Depth
To Invert

Invert
Levels

Finished Surface

Chainage

Ø750 RCRRJ Class 4	Ø375 uPVC SN8	Ø375 uPVC SN8	Ø375 uPVC SN8	Ø300 uPVC SN8	Ø300 uPVC SN8	Ø300 uPVC SN8
1.52%	3.08%	1.91%	0.96%	0.7%	0.61%	8.34%
-4.000						
3.038	2.679	2.100	1.940	1.880	1.720	1.790
3.374	3.733	4.888	5.252	5.399	5.835	6.066
6.412	6.412	6.988	7.192	7.279	7.555	7.856
0.000	21.42	50.699	68.224	82.459	124.648	156.048

LINE A01



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C		
B		
A	1ST ISSUE	??-??-?? KH GmCG
REV.	REVISION DETAILS	DRAWN APP.


PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

STORMWATER LONGSECTIONS
LINE A01

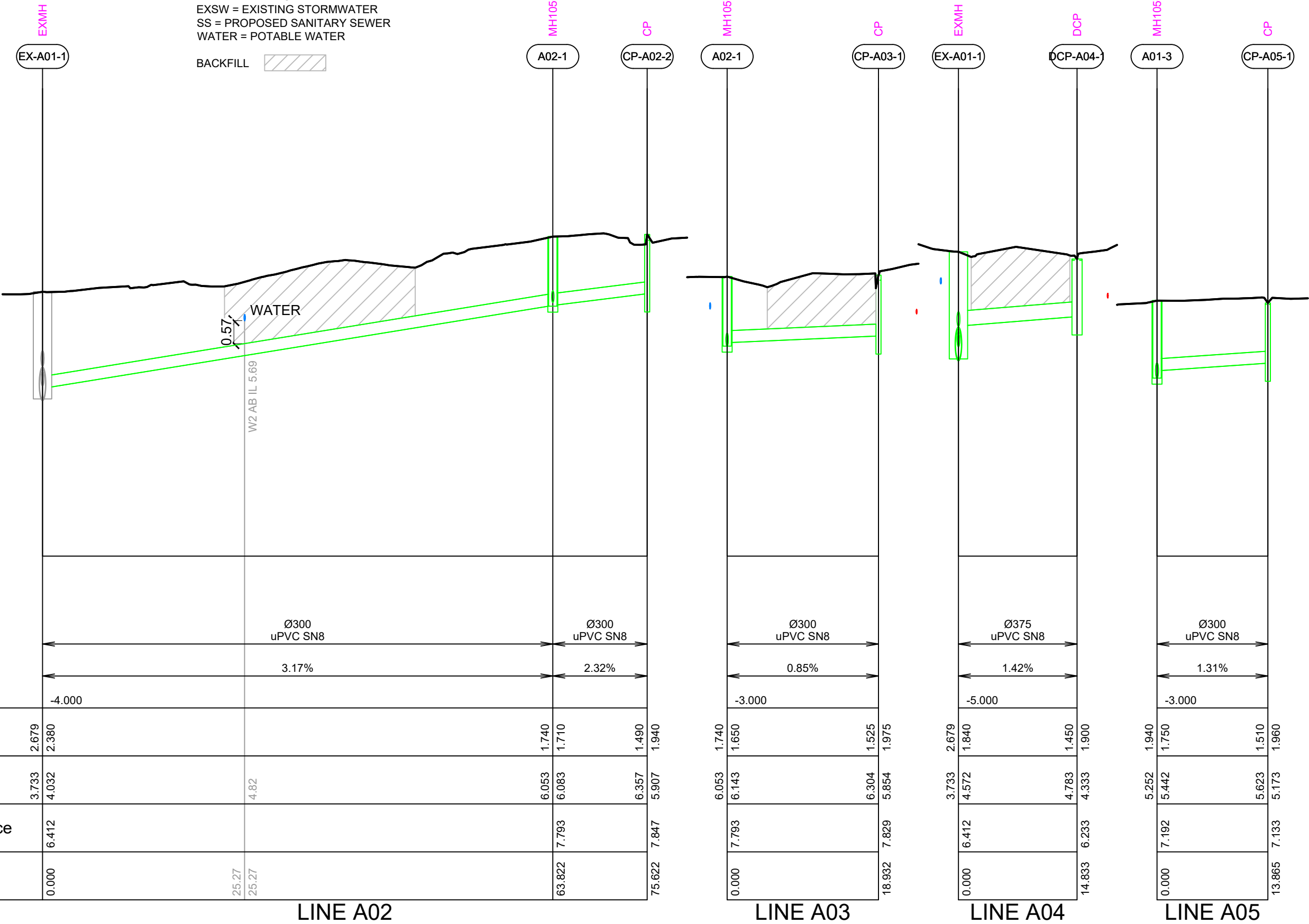
DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3	STATUS AS BUILTS	
DWG NUMBER	AB630	REVISION A	



G. M.
MCGREGOR
WDC IQP#002

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL 



Pipe Size/Type

Grade (%)

Datum

Depth
To Invert

Invert
Levels

Finished Surface

Chainage

LINE A02

LINE A03

LINE A04

LINE A05



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PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

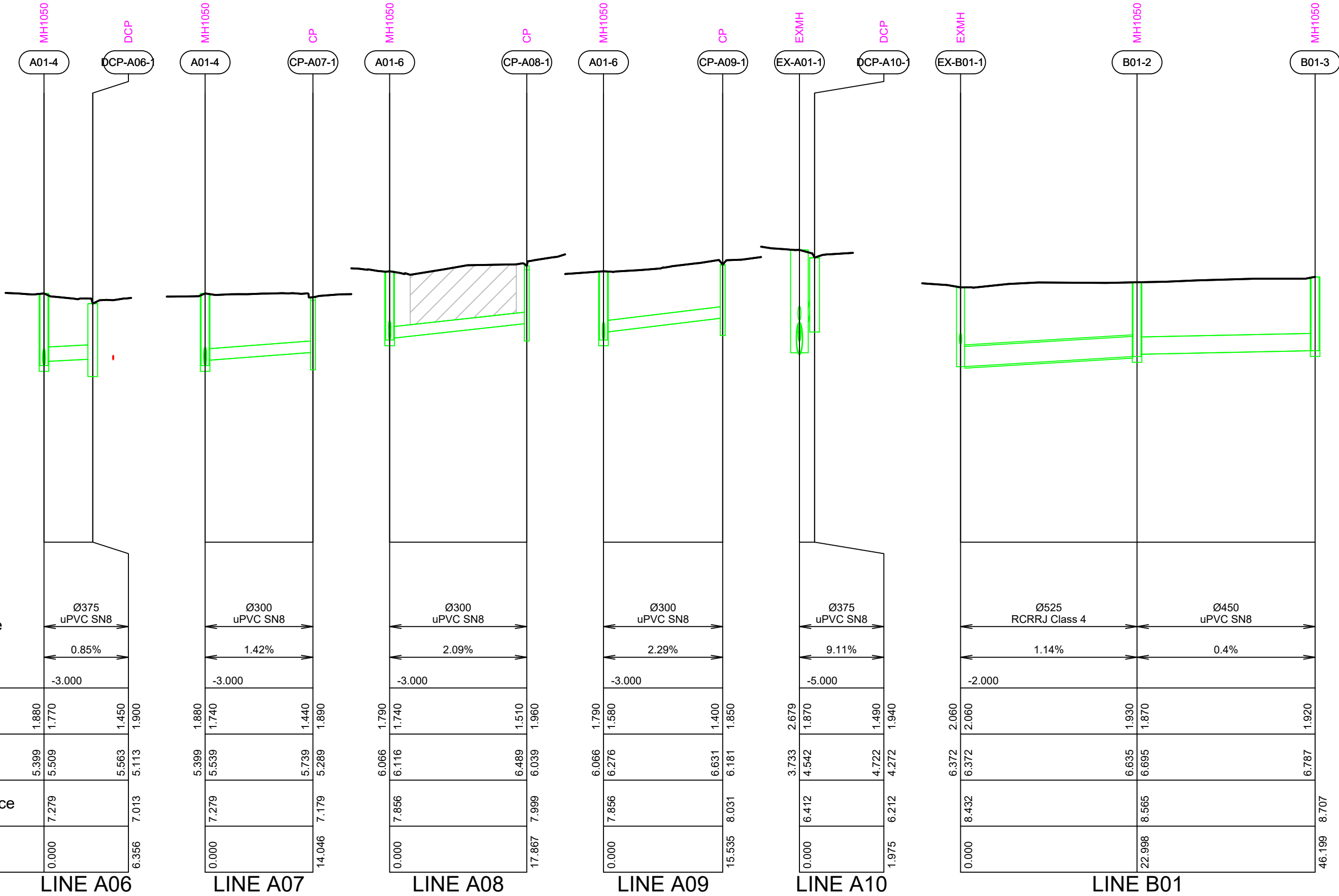
TITLE
STORMWATER LONGSECTIONS
LINES A02, A03, A04 & A05

DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB631			REVISION A

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL

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4
2
0
SCALE 1:100

C			
B			
A	1ST ISSUE	??-??-??	KH GMcG
REV.	REVISION DETAILS	DRAWN	APP.


PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
STORMWATER LONGSECTIONS LINES A06,A07,A08, A09, A10 & B01

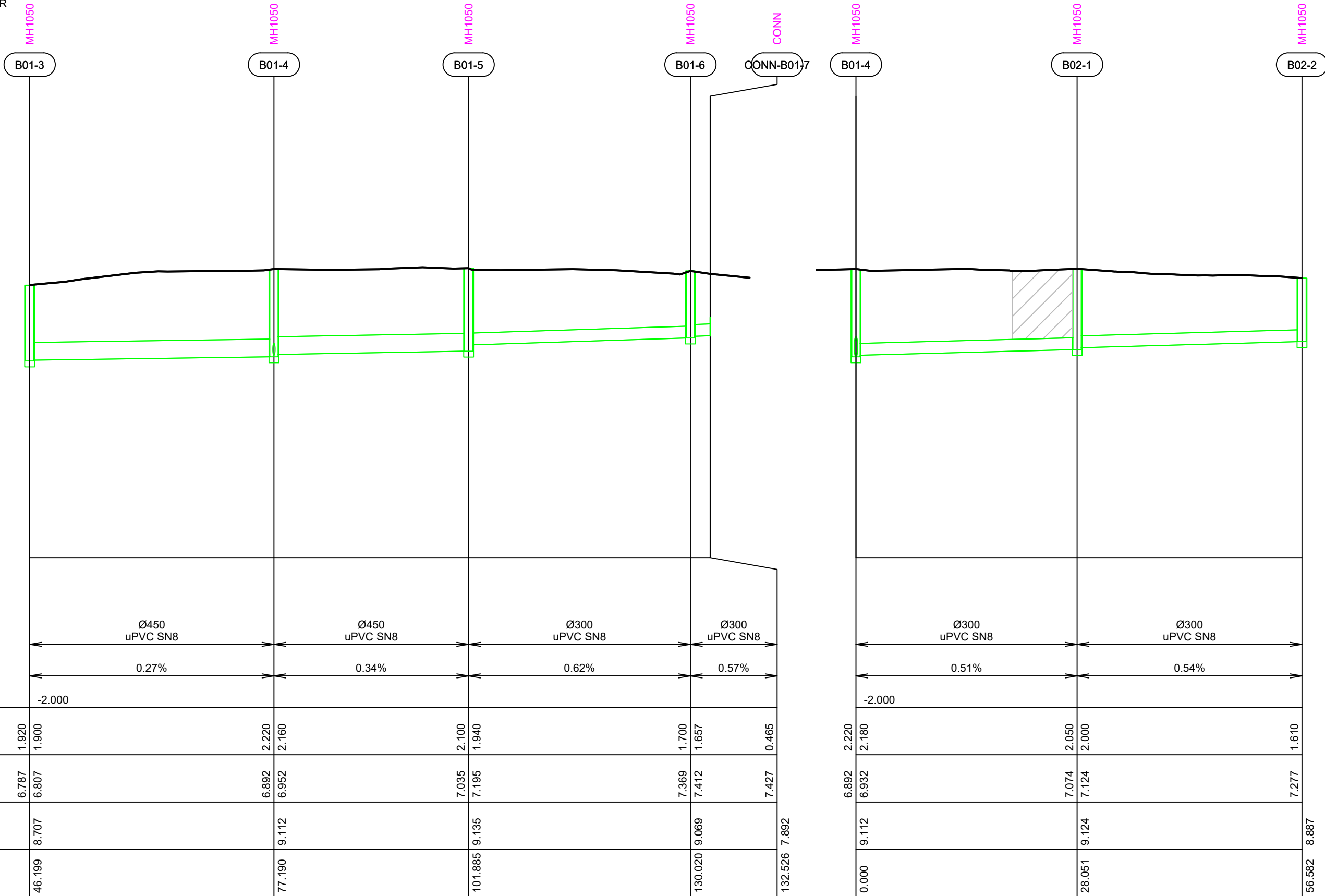
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CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB632			REVISION A

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SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL



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LINE B01

LINE B02

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PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

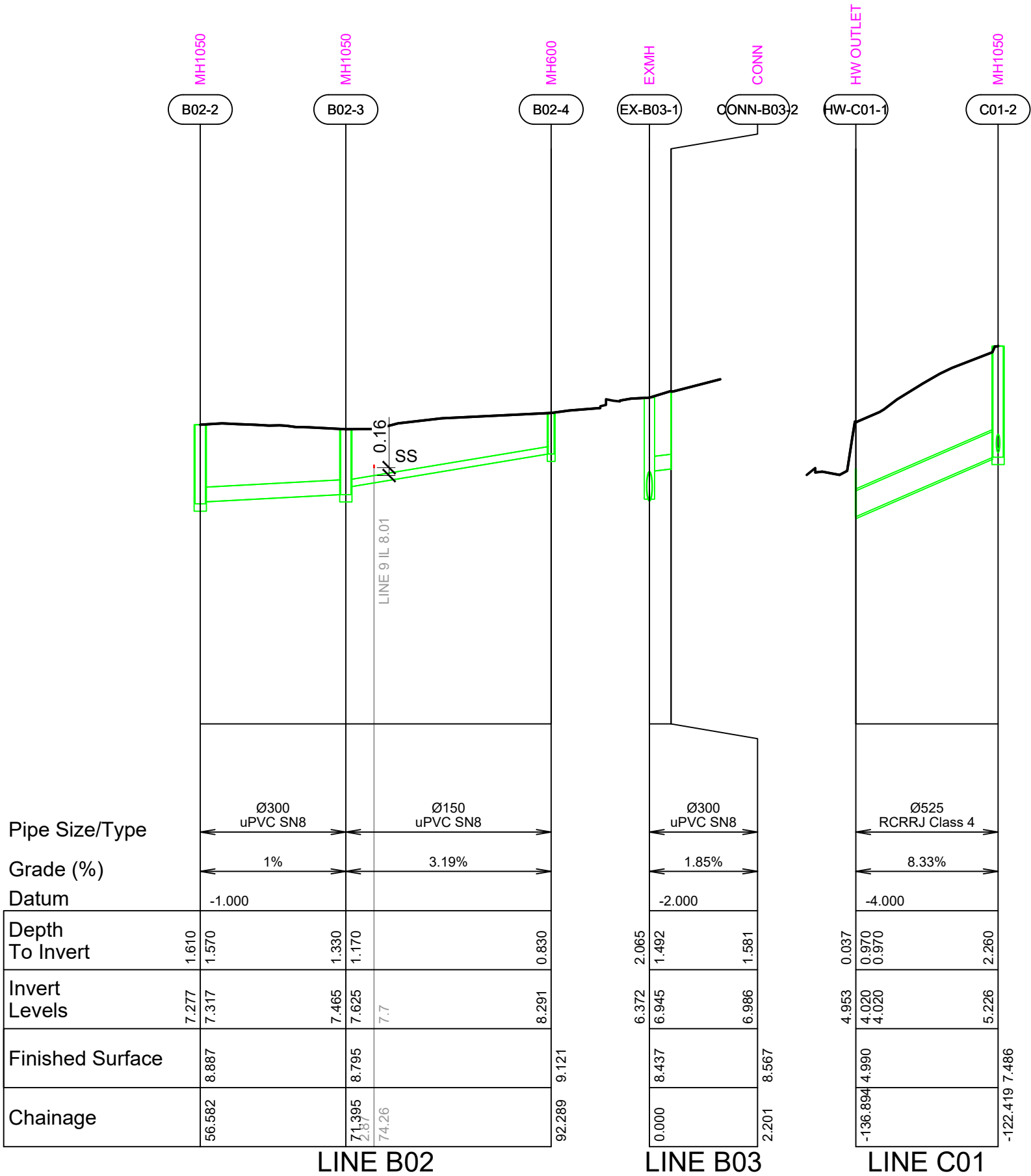
STORMWATER LONGSECTIONS
LINE B01 & B02


DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB633			REVISION A

KEY:
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EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL

G. M.
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WDC IQP#002

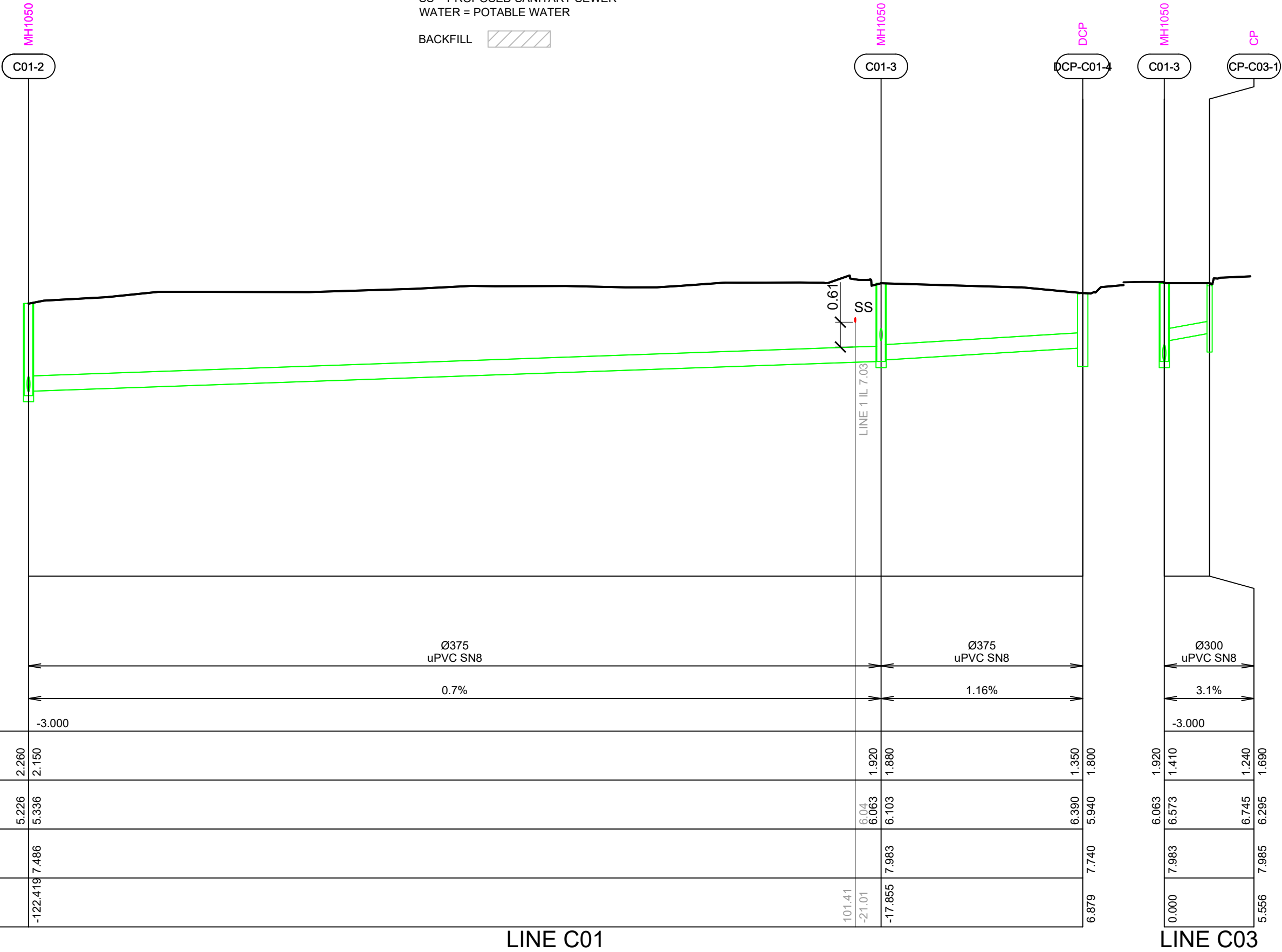




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KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL 



LINE C01

LINE C03



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C			
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REV.	REVISION DETAILS	DRAWN APP.	

PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE
STORMWATER LONGSECTIONS
LINES C01 & C03

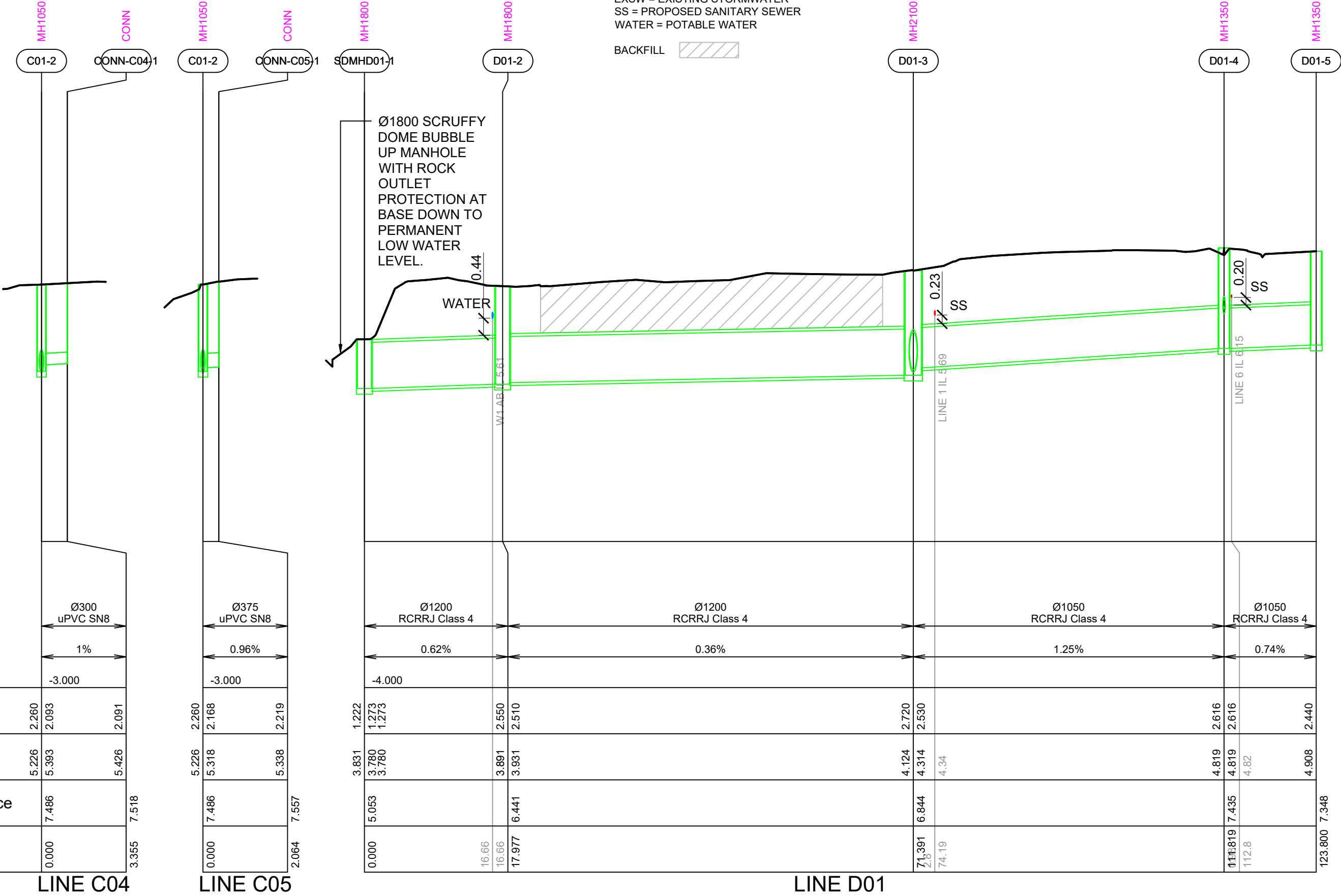
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CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB635			REVISION A



G. M.
MCGREGOR
WDC IQP#002

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL 



Pipe Size/Type

Grade (%)

Datum

Depth To Invert

Invert Levels

Finished Surface

Chainage

LINE C04

LINE C05

LINE D01



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B			
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REV.	REVISION DETAILS	DRAWN APP.	

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

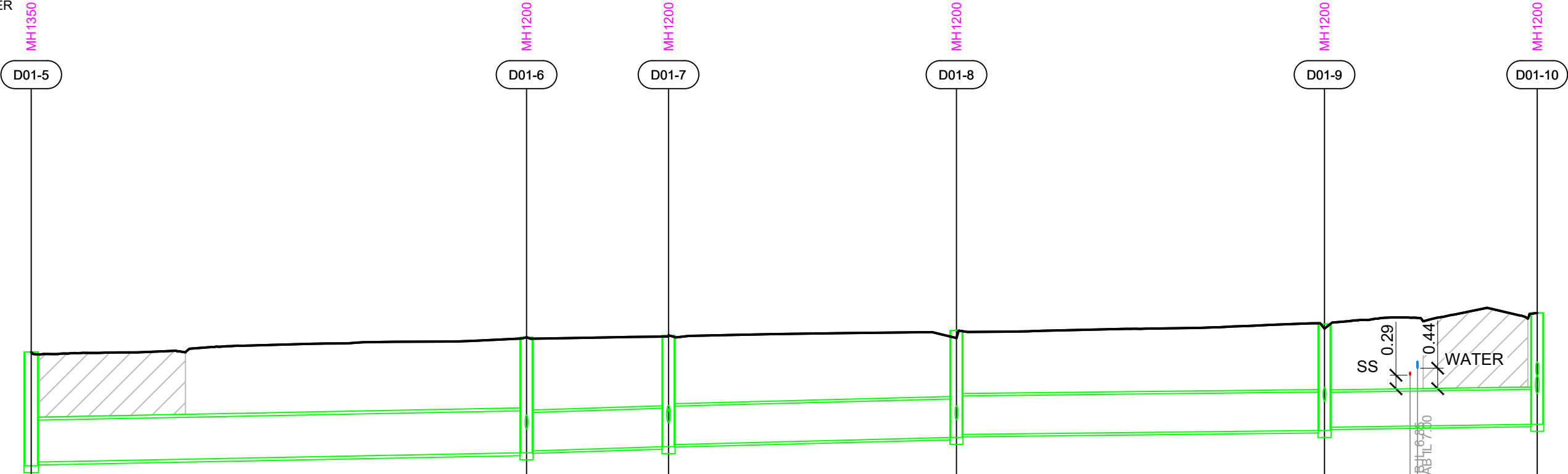
STORMWATER LONGSECTIONS
LINES C04, C05 & D01

DATE CREATED	???	DRAWN	K HANSARD	DESIGNED	???	APPROVED	G MCGREGOR
CCL REF NO	14333-003	SCALE	1:500H 1:100V @ A3	STATUS			
DWG NUMBER				REVISION			
AB636				A			

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL


G. M.
MCGREGOR
WDC IQP#002

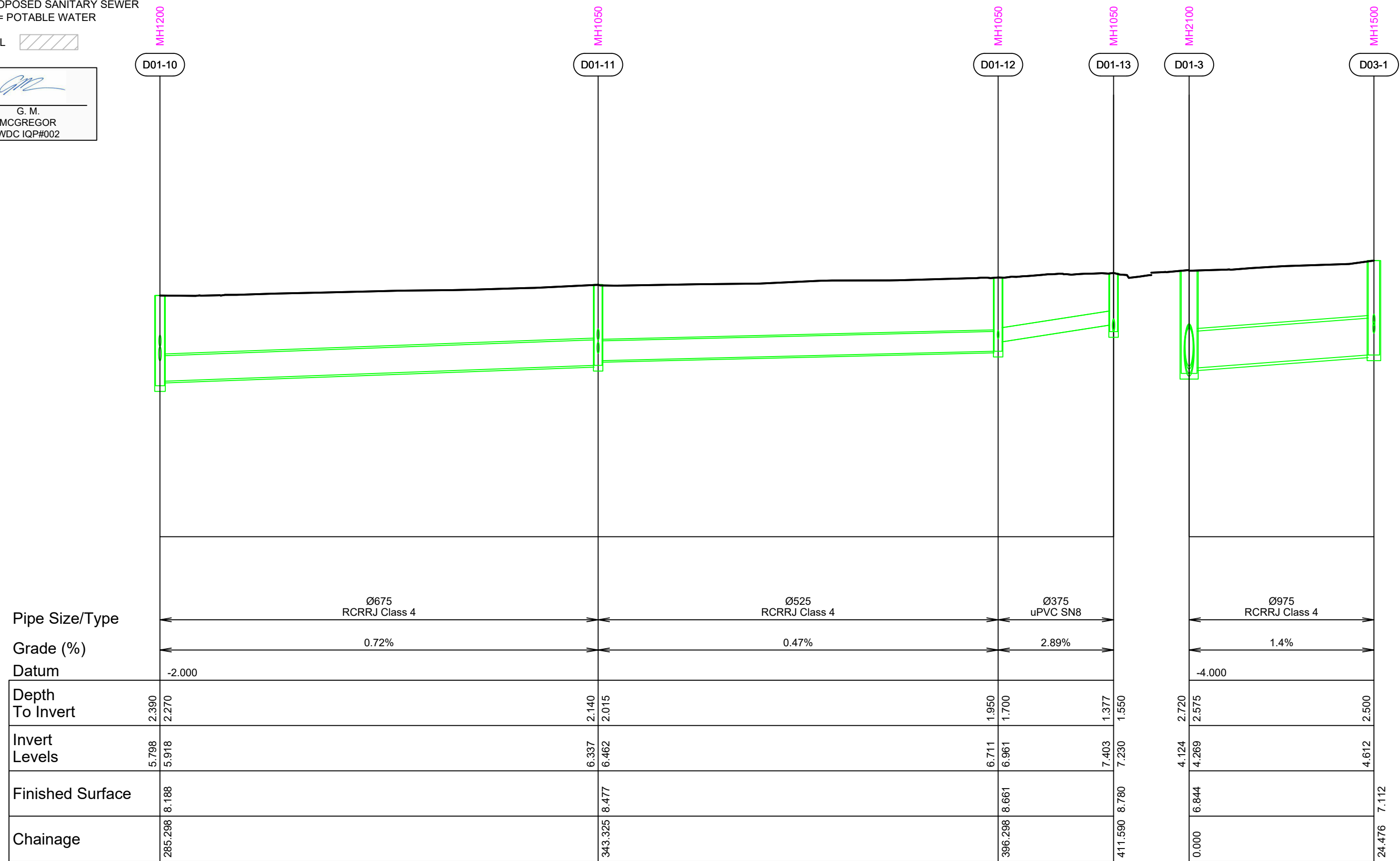


Pipe Size/Type	Ø900 RCRRJ Class 4		Ø825 RCRRJ Class 4		Ø825 RCRRJ Class 4		Ø825 RCRRJ Class 4		Ø750 RCRRJ Class 4		
Grade (%)	0.37%		0.59%		0.5%		0.21%		0.28%		
Datum	-3.000										
Depth To Invert	2.440	2.360	2.480	2.440	2.390	2.345	2.295	2.230	2.285	2.215	2.390
Invert Levels	4.908	4.988	5.187	5.227	5.317	5.362	5.516	5.581	5.665	5.735	5.798
Finished Surface	7.348		7.667		7.707		7.811		7.950		
Chainage	123.800		176.916		192.141		223.020		262.488	271.18	272.46

LINE D01

BACKFILL


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LINE D01

LINE D03



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C			
B			
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REV.	REVISION DETAILS	KH	GMC

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE	STORMWATER LONGSECTIONS LINES D01 & D03
-------	--


DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILT
DWG NUMBER AB638			REVISION A

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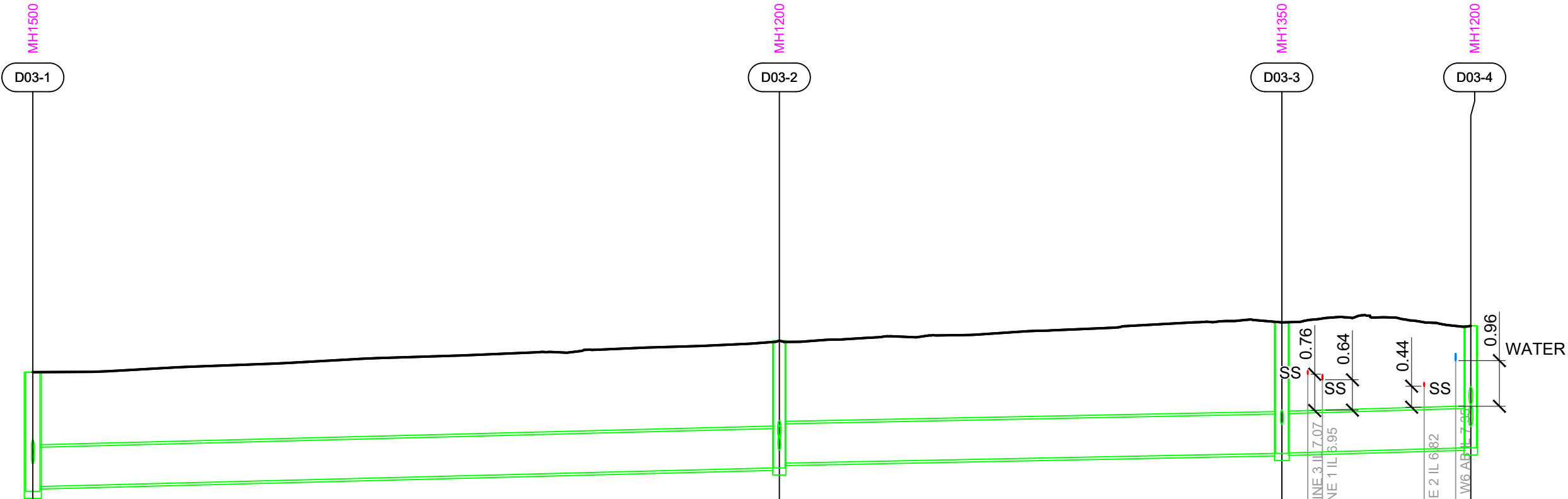
DATE PLOTTED: Thursday, 25 June 2020 11:25:51 a.m. FILE PATH: C:\Users\Karren\AppData\Local\Temp\BricsCAD\bp_1\14333-003-AB630-SW LS.dwg

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL 



G. M.
MCGREGOR
WDC IQP#002



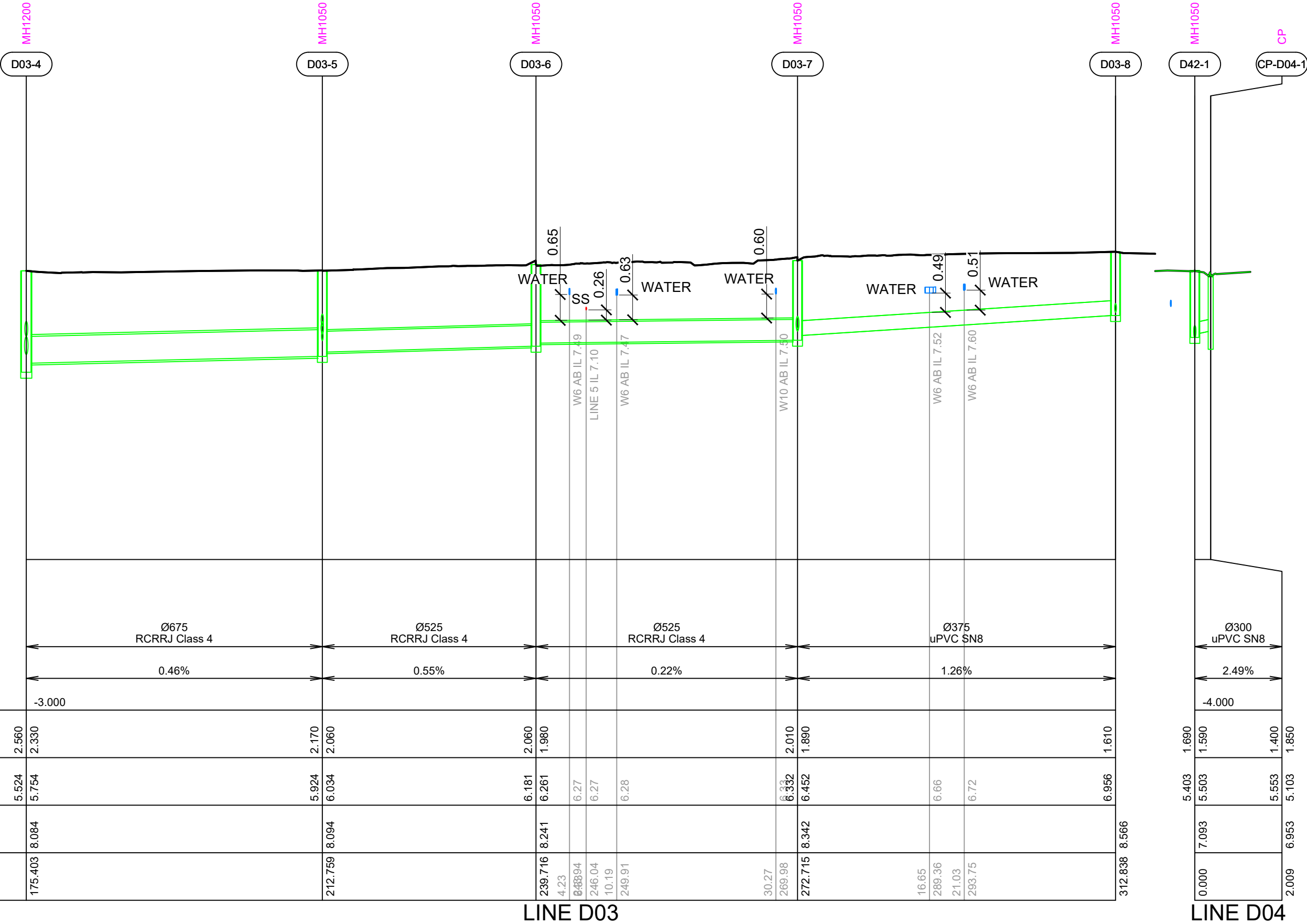
Pipe Size/Type	Ø825 RCRRJ Class 4		Ø825 RCRRJ Class 4		Ø825 RCRRJ Class 4	
Grade (%)	0.5%		0.39%		0.54%	
Datum	-3.000					
Depth To Invert	2.500	2.400	2.670	2.570	2.750	2.740
Invert Levels	4.612	4.712	5.103	5.203	5.407	5.417
Finished Surface		7.112		7.773		8.157
Chainage	24.476		102.829	7.773	155.573	4.5629


LINE D03

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL

G. M.
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WDC IQP#002

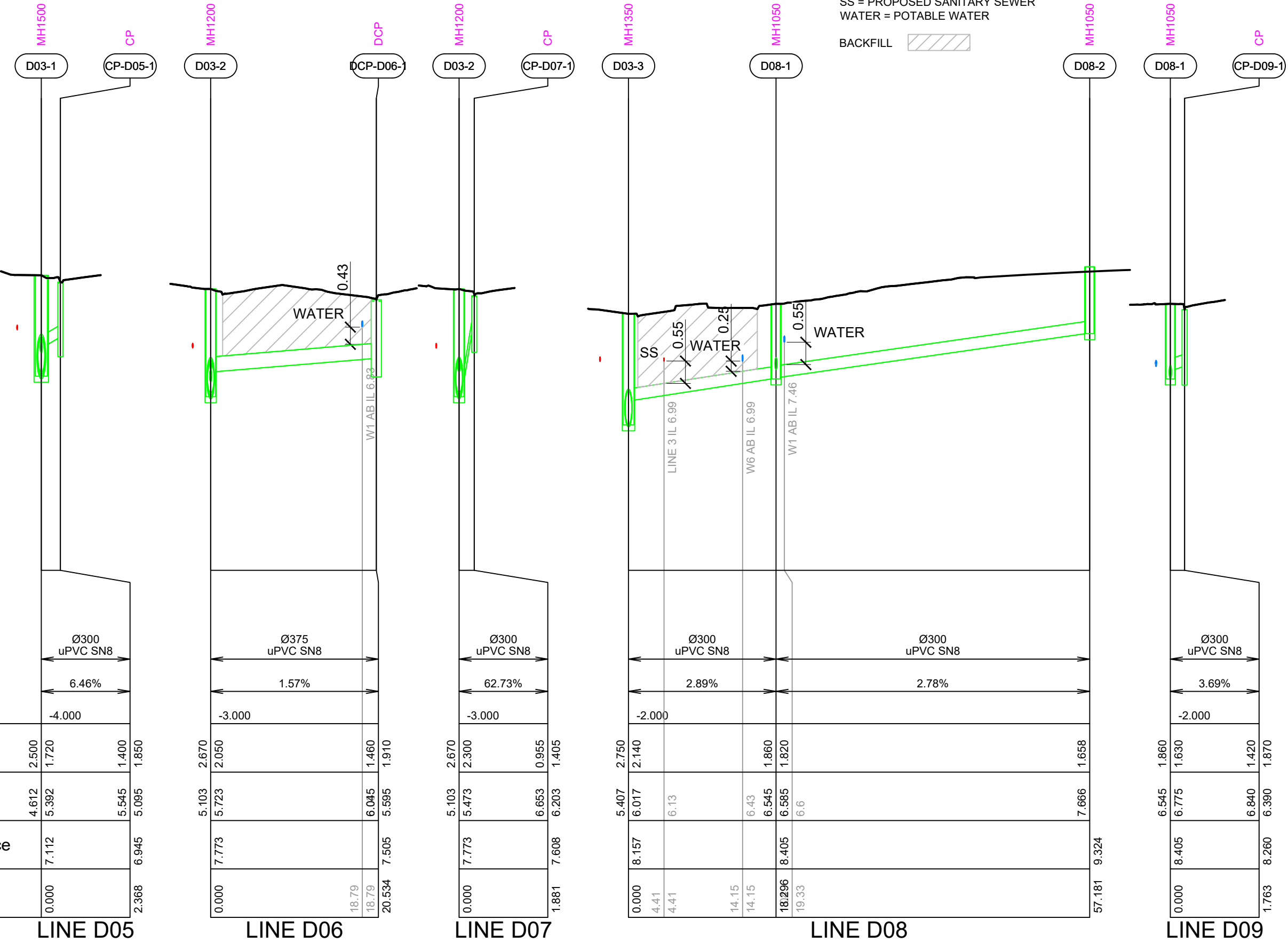




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WDC IQP#002

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL 



Pipe Size/Type

Grade (%)

Datum

Depth
To Invert

Invert
Levels

Finished Surface

Chainage

LINE D05

LINE D06

LINE D07

LINE D08

LINE D09



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PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA


TITLE

STORMWATER LONGSECTIONS
LINES D05, D06, D07, D08 & D09

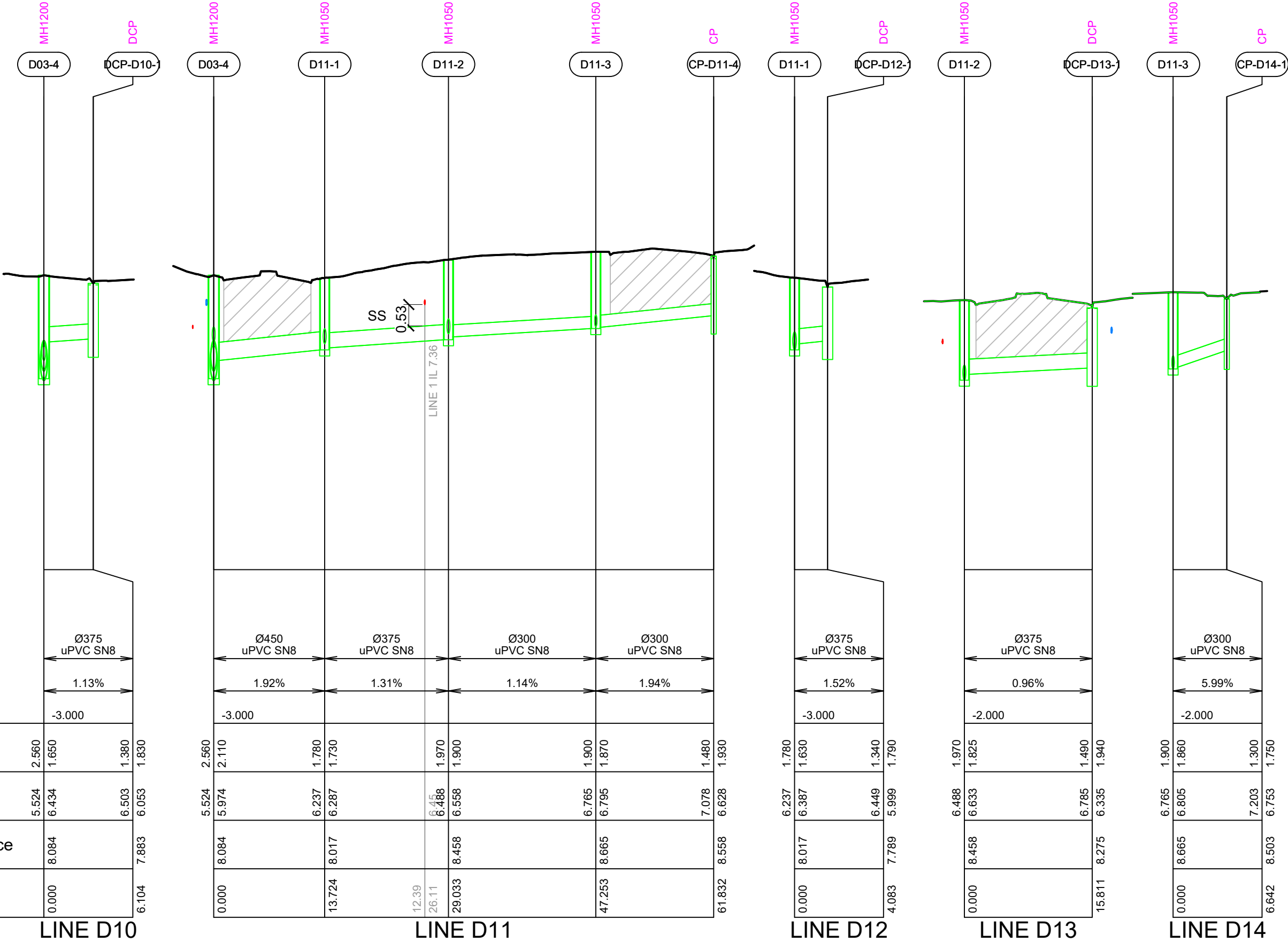
DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB641			REVISION A

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL




G. M.
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WDC IQP#002

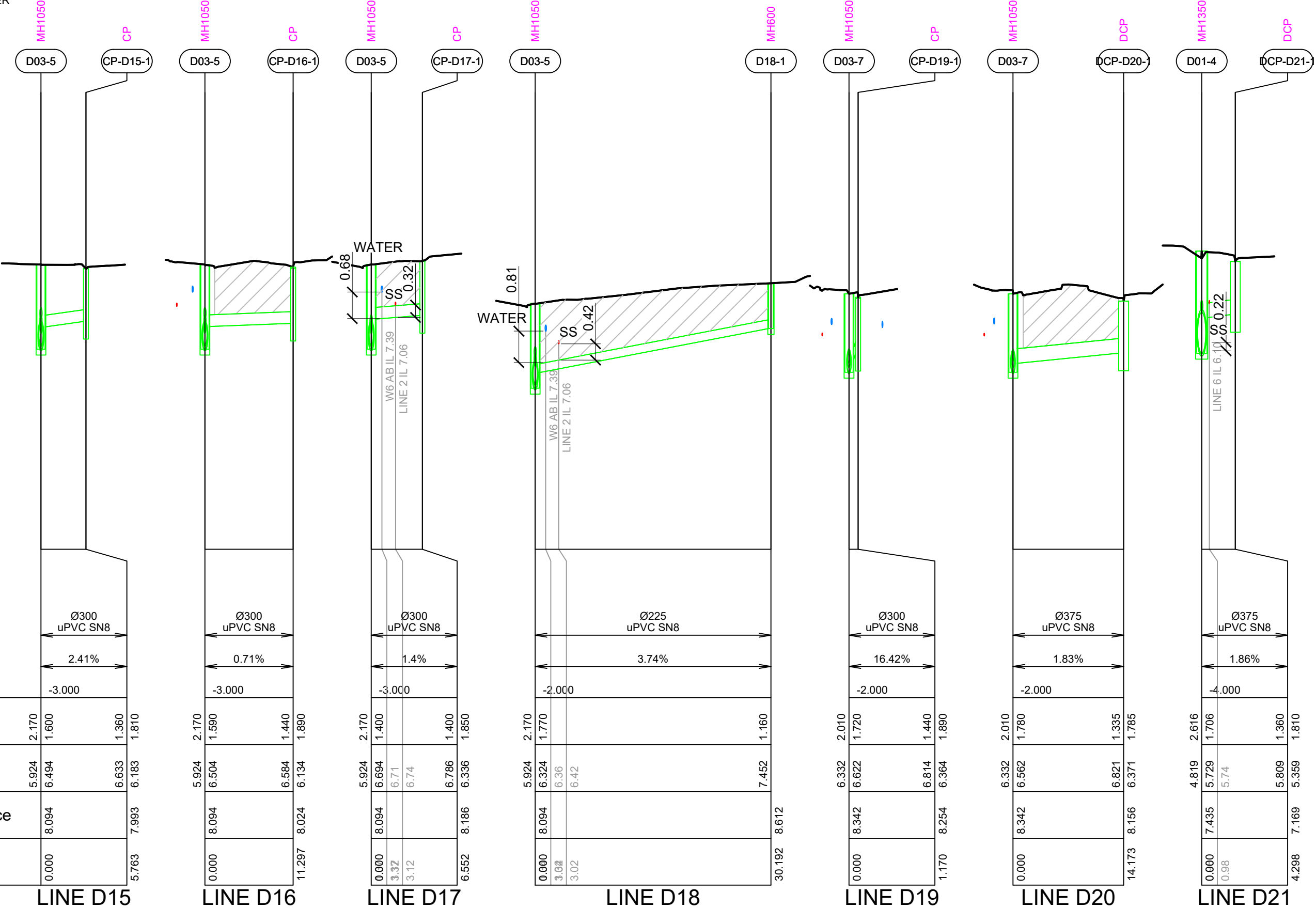


KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL



G. M.
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WDC IQP#002



Pipe Size/Type

Grade (%)

Datum

Depth
To Invert

Invert
Levels

Finished Surface

Chainage

LINE D15

LINE D16

LINE D17

LINE D18

LINE D19

LINE D20

LINE D21

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REV.	REVISION DETAILS	DRAWN APP.	

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA


TITLE

STORMWATER LONGSECTIONS
LINES D15, D16, D17, D18, D19, D20 & D21

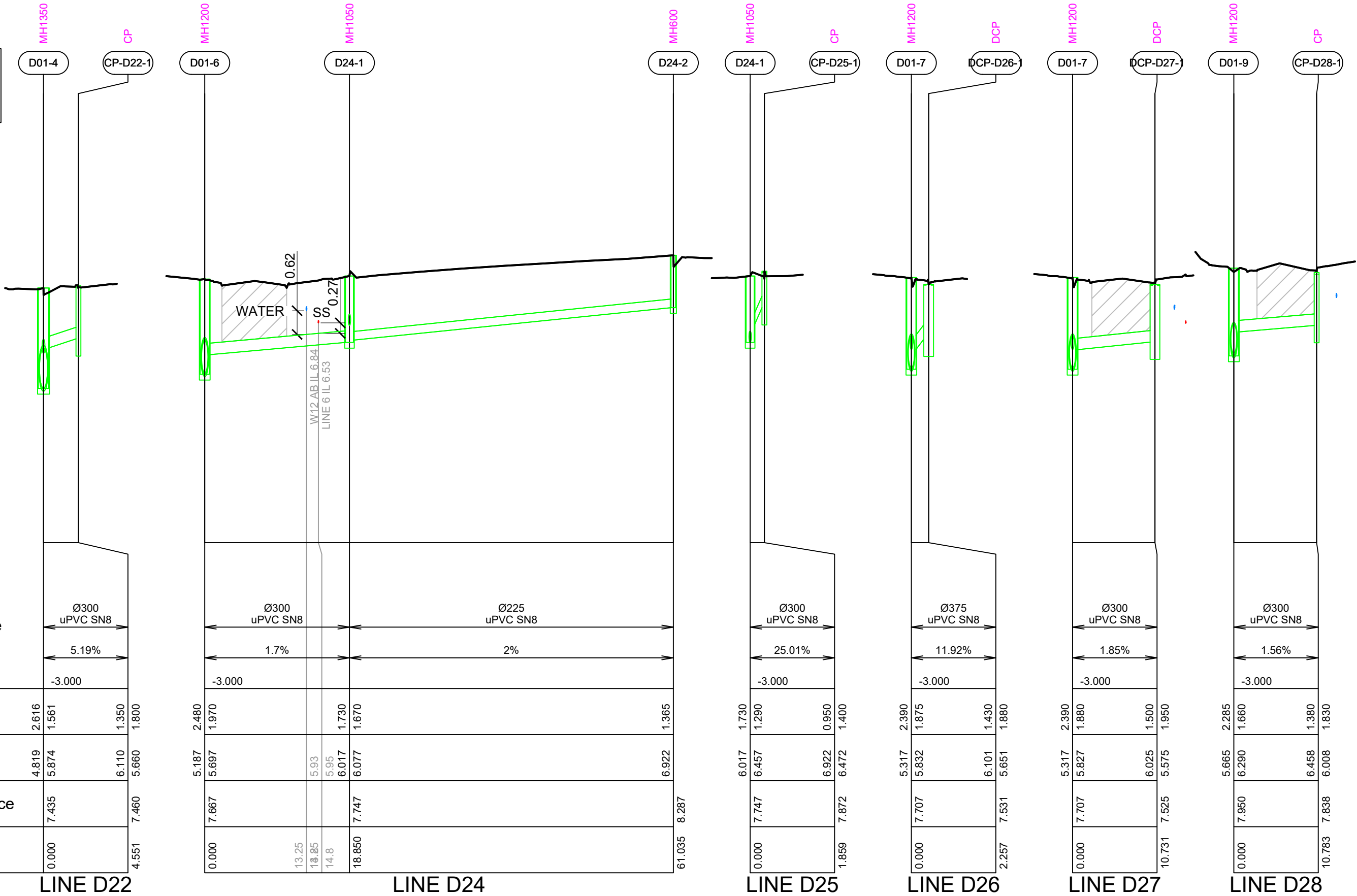
DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB643			REVISION A

KEY:
EXSS = EXISTING SANITARY SEWER
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SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL



G. M.
MCGREGOR
WDC IQP#002



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REV.	REVISION DETAILS	DRAWN APP.	

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA


TITLE

STORMWATER LONGSECTIONS
LINES D22, D24, D25, D26, D27 & D28

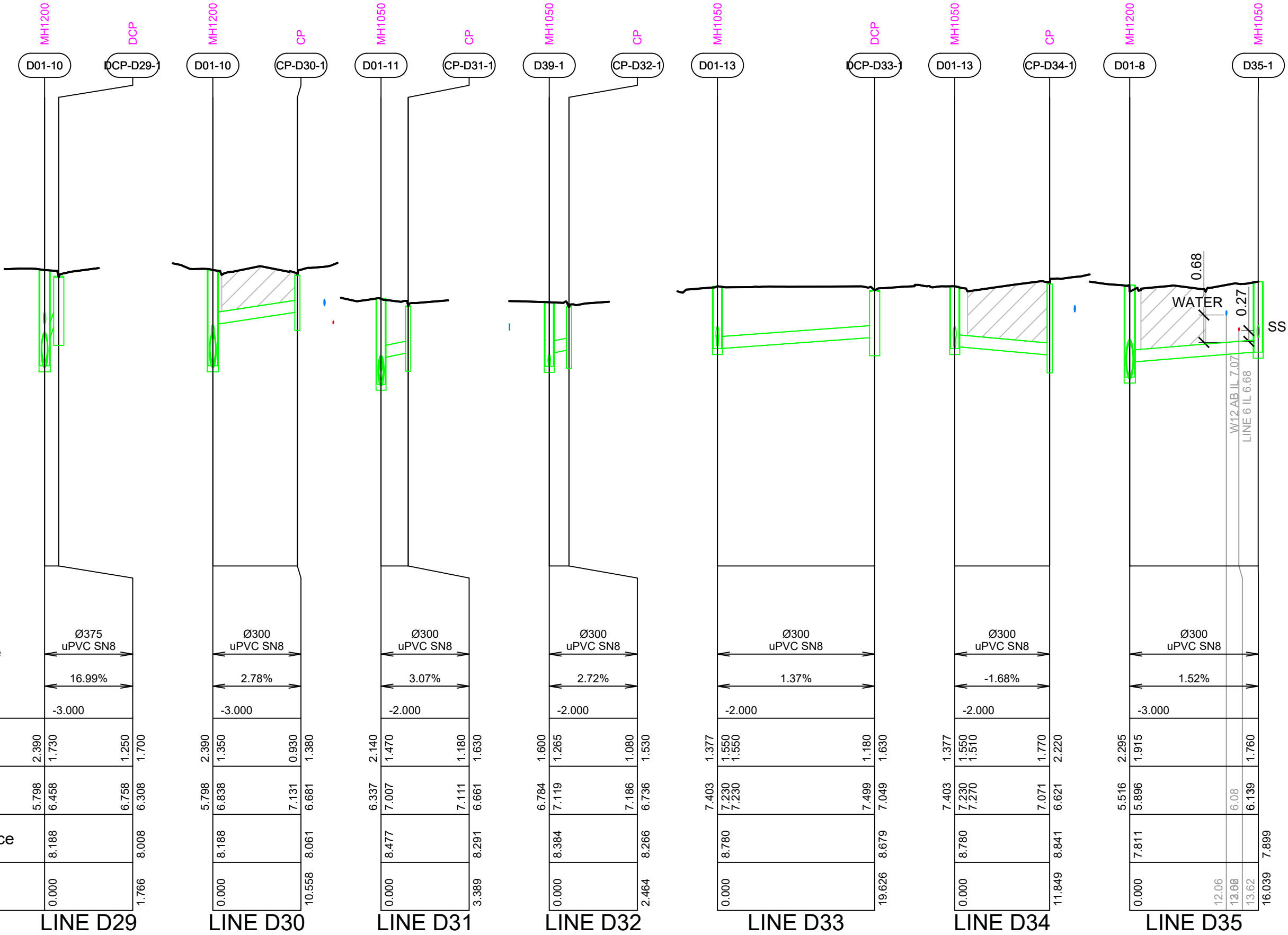
DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB644			REVISION A

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL



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Pipe Size/Type	Ø375 uPVC SN8
Grade (%)	16.99%
Datum	-3.000
Depth To Invert	2.390 1.730 1.250 1.700
Invert Levels	5.798 6.458 6.758 6.308
Finished Surface	8.188 8.008
Chainage	0.000 1.766

LINE D29 LINE D30 LINE D31 LINE D32 LINE D33 LINE D34 LINE D35

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C		
B		
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REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA


TITLE

STORMWATER LONGSECTIONS
LINES D29, D30, D31, D32, D34 & D35

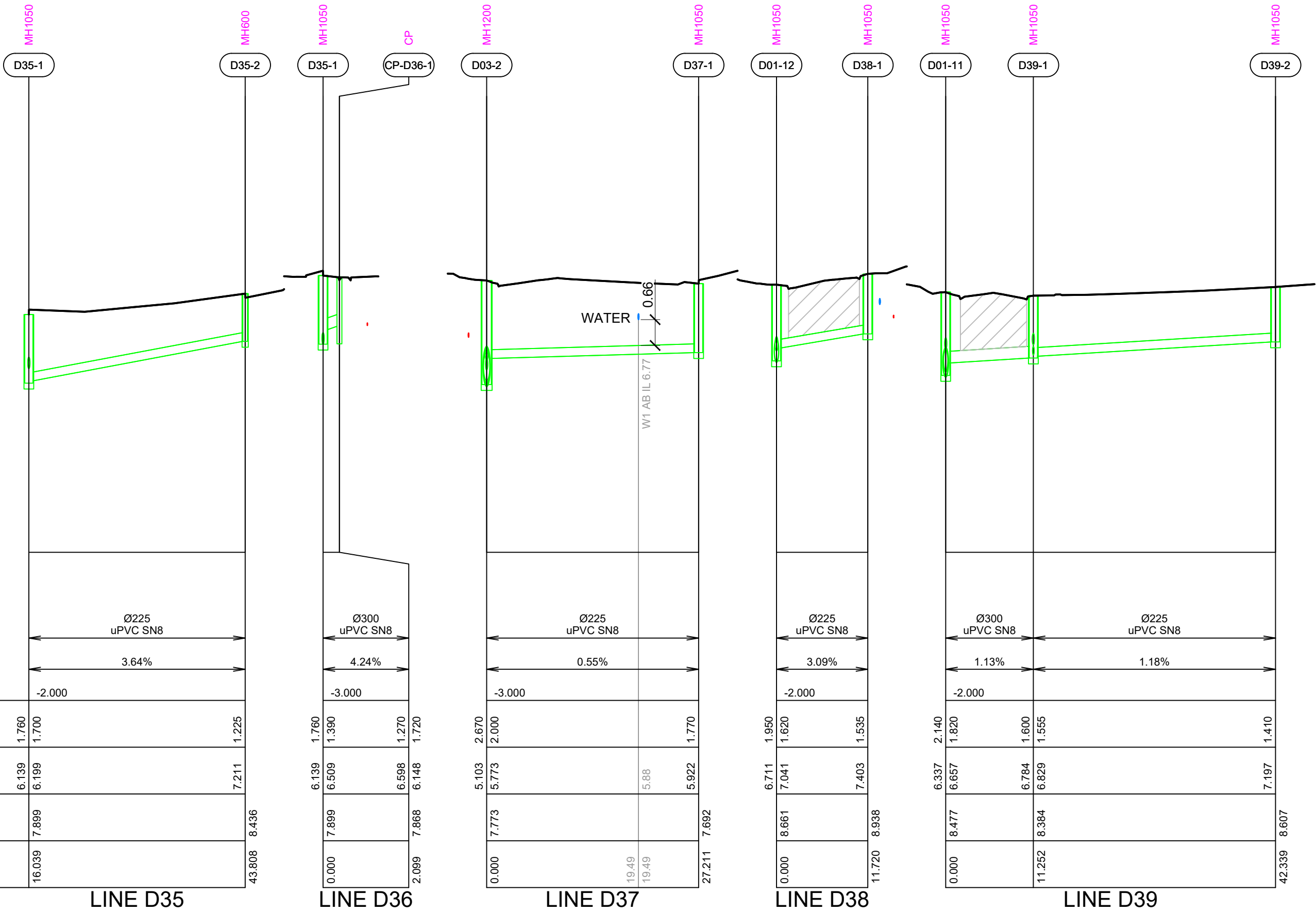
DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB645			REVISION A

KEY:
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SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL



G. M.
MCGREGOR
WDC IQP#002



C		
B		
A	1ST ISSUE	??-??-??
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

STORMWATER LONGSECTIONS
LINES D35, D36, D37, D38 & D39

DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3	STATUS AS BUILTS	
DWG NUMBER AB646		REVISION A	

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SCALE 1:500

DATE PLOTTED: Thursday, 25 June 2020 11:25:52 a.m. FILE PATH: C:\Users\Karren\AppData\Local\Temp\BricsCAD\bp_114333-003-AB630-SW LS.dwg

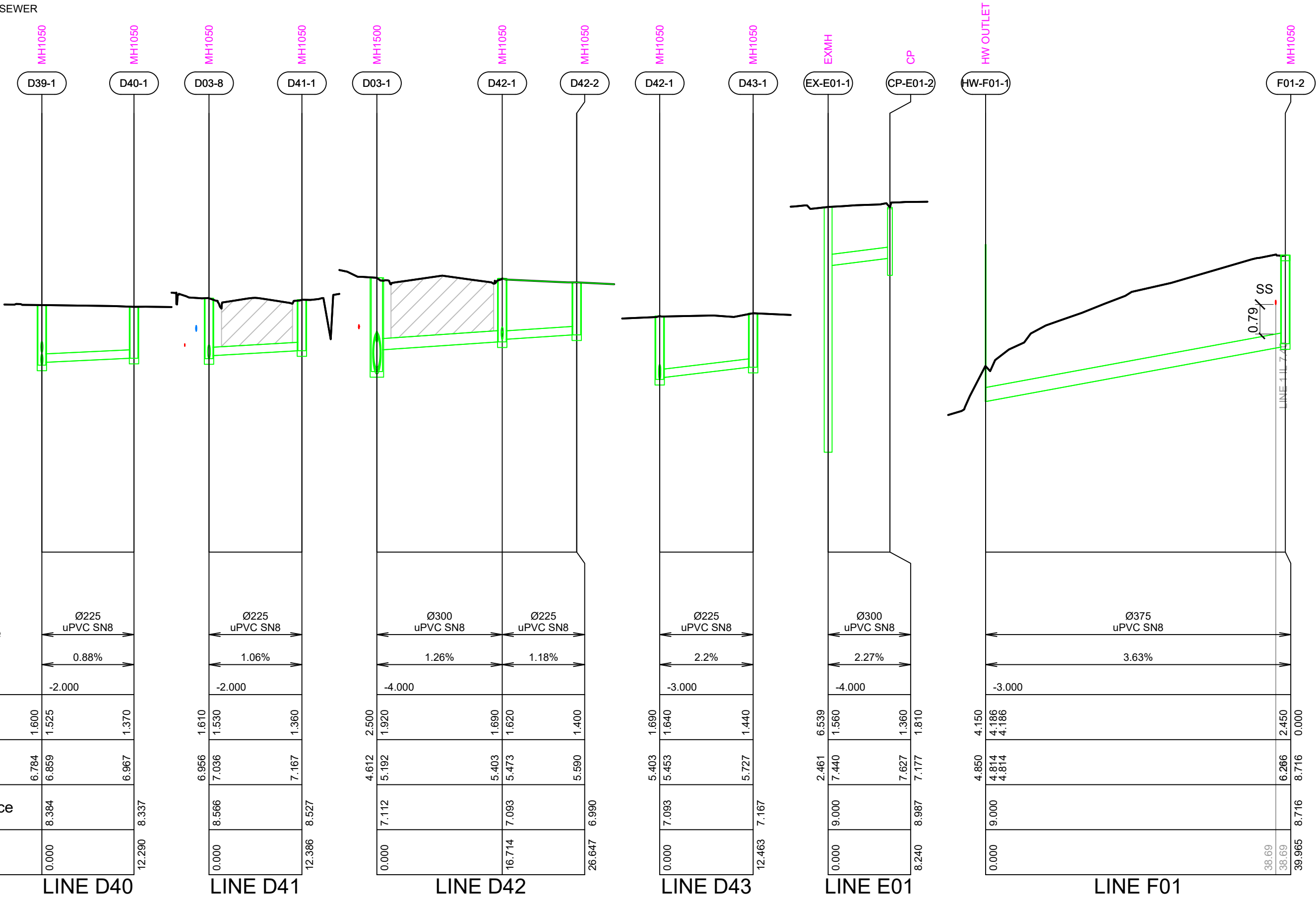
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KEY:
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EXSW = EXISTING STORMWATER
SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL



G. M.
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WDC IQP#002



Pipe Size/Type

Grade (%)

Datum

Depth
To Invert

Invert
Levels

Finished Surface

Chainage

LINE D40

LINE D41

LINE D42

LINE D43

LINE E01

LINE F01

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REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

STORMWATER LONGSECTIONS
LINES D40, D41, D42, D43, E01 & F01

DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3		STATUS AS BUILTS
DWG NUMBER AB647			REVISION A

4
2
0

SCALE 1:500

DATE PLOTTED: Thursday, 25 June 2020 11:25:53 a.m. FILE PATH: C:\Users\Karren\AppData\Local\Temp\BricsCAD\bp_114333-003-AB630-SW LS.dwg

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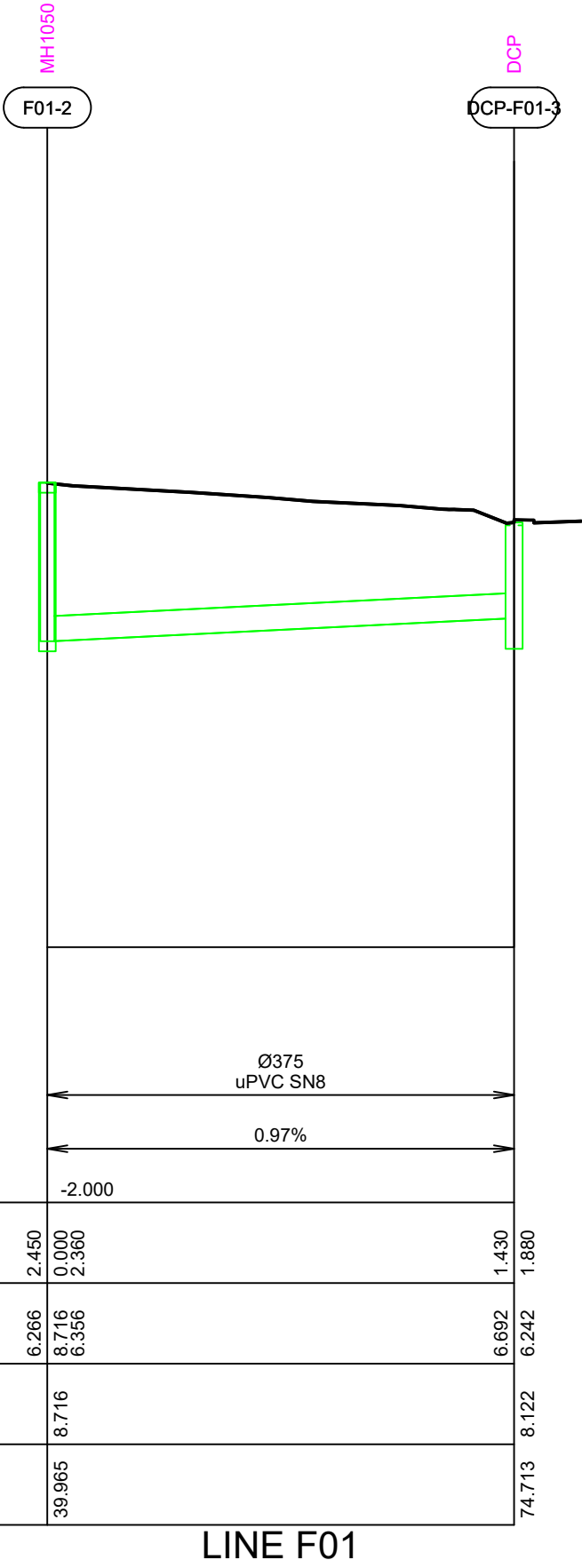
KEY:
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SS = PROPOSED SANITARY SEWER
WATER = POTABLE WATER

BACKFILL



G.M.

G. M.
MCGREGOR
WDC IQP#002



Pipe Size/Type

Grade (%)

Datum

Depth
To Invert

Invert
Levels

Finished Surface

Chainage

LINE F01

C			
B			
A	1ST ISSUE	??-??-??	KH GMcG
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

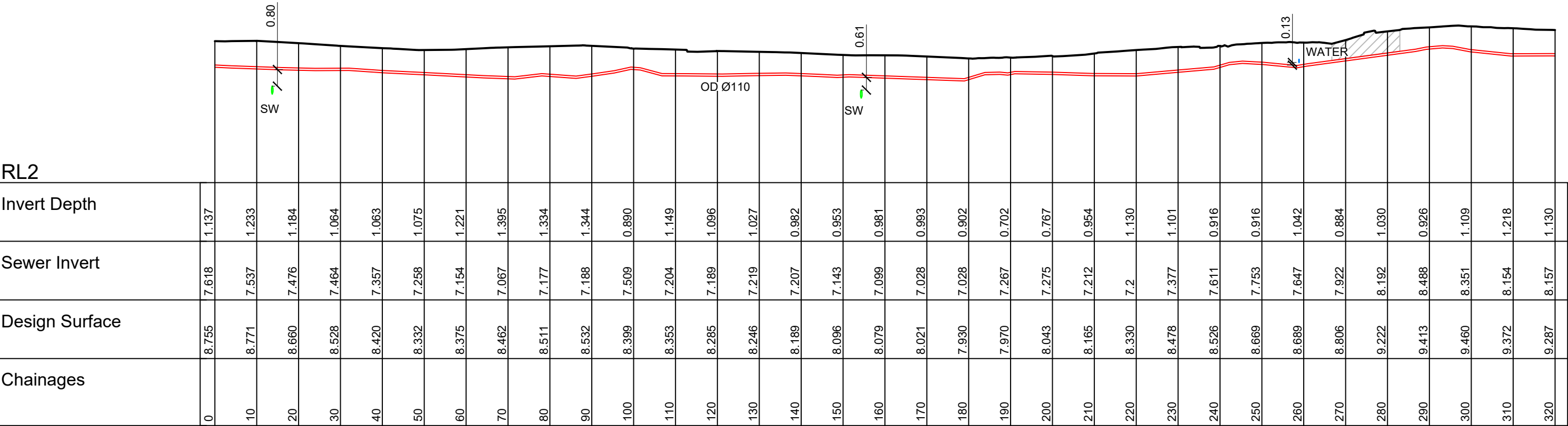
TITLE
STORMWATER LONGSECTIONS LINE F01

DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G McGREGOR
CCL REF NO 14333-003	SCALE 1:500H 1:100V @ A3	STATUS AS BUILTS	
DWG NUMBER	AB648	REVISION A	

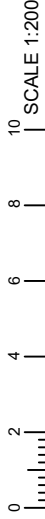
- NOTES:
- ALL LOW PRESSURE SEWER (LPS) SHALL BE PE100 SRD11 AND PN16.
 - ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
 - LPS LATERALS FROM LPS TANK TO MAIN SHALL BE 40mm OD.

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SW = PROPOSED STORMWATER
WATER = POTABLE WATER

BACKFILL 



Horizontal 1:1000 Vertical 1:200
SEWER LONGSECTION LINE 1




C			
B			
A	1ST ISSUE	??-??-??	KH GMcG
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
SANITARY SEWER LONGSECTIONS LINE 1

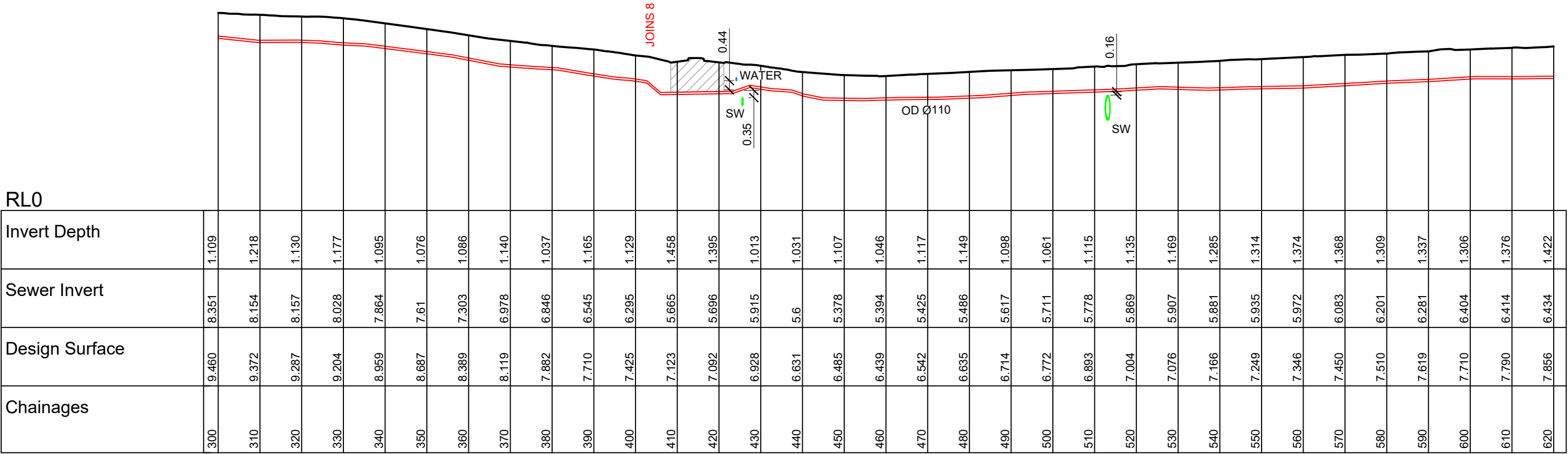
DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:1000H 1:200V @ A3		STATUS AS BUILTS
DWG NUMBER AB650			REVISION A


G. M.
MCGREGOR
WDC IQP#002

- NOTES:
- ALL LOW PRESSURE SEWER (LPS) SHALL BE PE100 SRD11 AND PN16.
 - ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
 - LPS LATERALS FROM LPS TANK TO MAIN SHALL BE 40mm OD.

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SW = PROPOSED STORMWATER
WATER = POTABLE WATER

BACKFILL 



Horizontal 1:1000 Vertical 1:200
SEWER LONGSECTION LINE 1



C			
B			
A	1ST ISSUE	??-??-??	KH GMcG
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
SANITARY SEWER LONGSECTIONS LINE 1

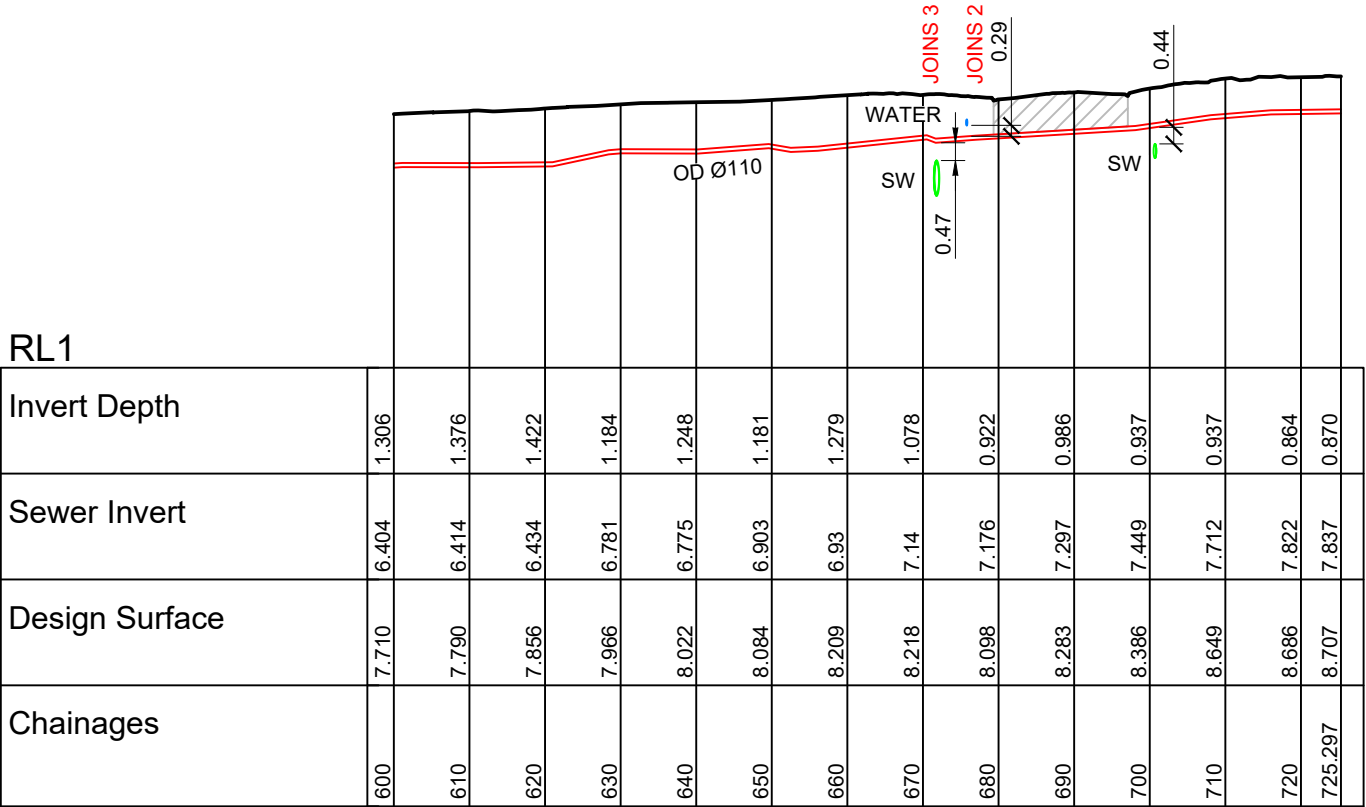
DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:1000H 1:200V @ A3		STATUS AS BUILTS
DWG NUMBER AB651			REVISION A


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- NOTES:
- ALL LOW PRESSURE SEWER (LPS) SHALL BE PE100 SRD11 AND PN16.
 - ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
 - LPS LATERALS FROM LPS TANK TO MAIN SHALL BE 40mm OD.

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SW = PROPOSED STORMWATER
WATER = POTABLE WATER

BACKFILL 



Horizontal 1:1000 Vertical 1:200
SEWER LONGSECTION LINE 1

10
8
6
4
2
0

0 10 20 30 40 50 SCALE 1:1000



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REV.	C			
	B			
	A	1ST ISSUE	??-??-??	KH GMcG
	REVISION DETAILS		DRAWN APP.	

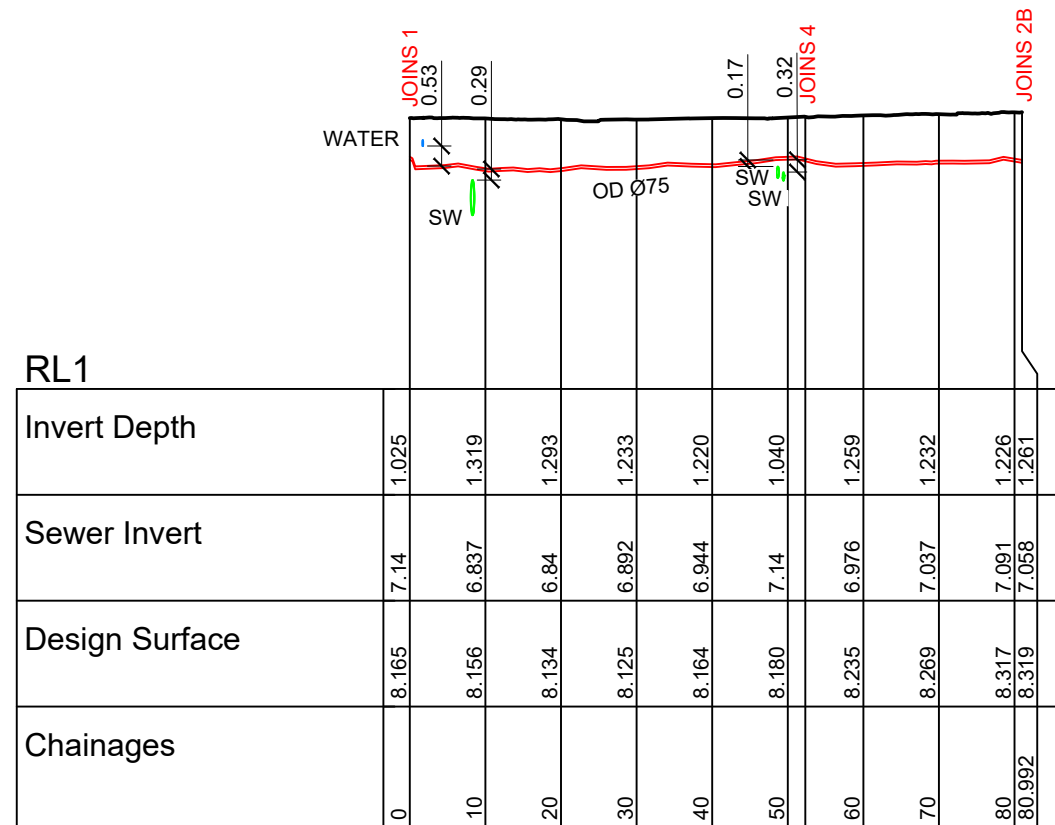
PROJECT DETAILS	
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA	

TITLE
SANITARY SEWER LONGSECTIONS LINE 1

DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:1000H 1:200V @ A3		STATUS AS BUILTS
DWG NUMBER AB652			REVISION A



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KEY:

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WATER = POTABLE WATER

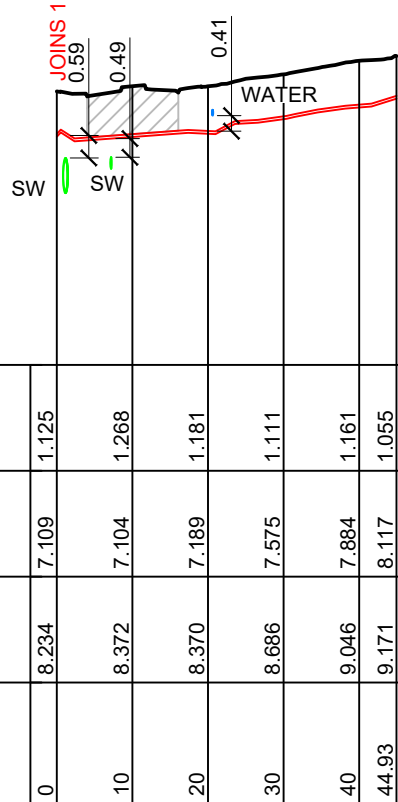
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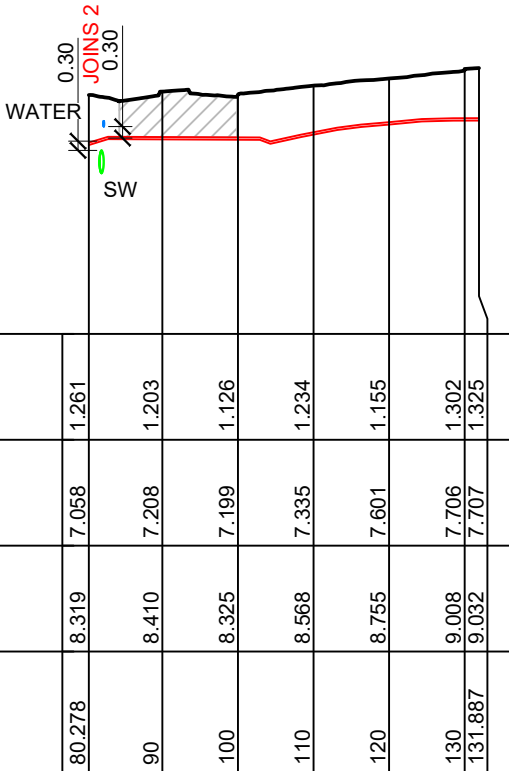
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EXSW = EXISTING STORMWATER
SW = PROPOSED STORMWATER
WATER = POTABLE WATER

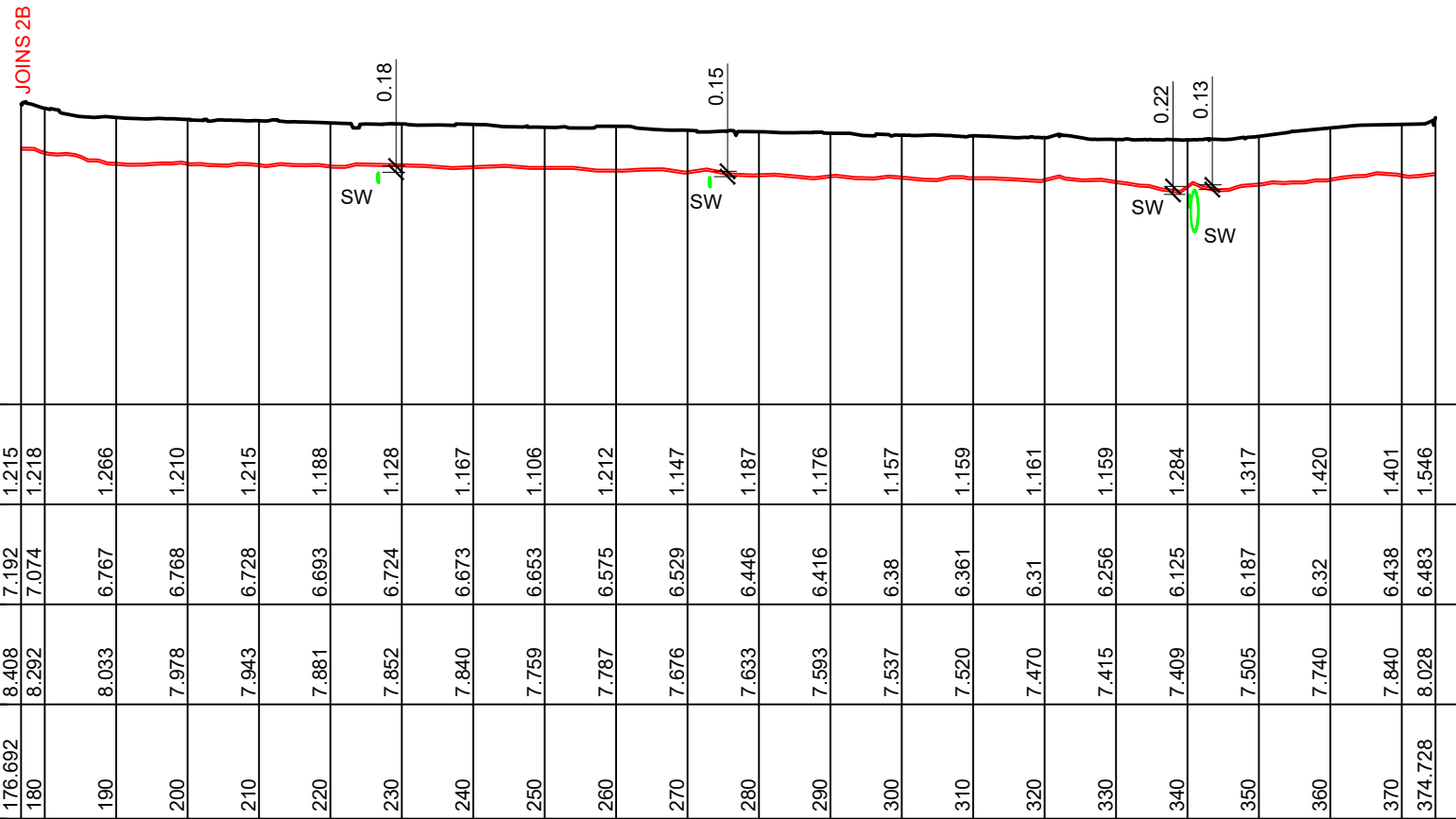
BACKFILL



Horizontal 1:1000 Vertical 1:200
SEWER LONGSECTION LINE 3



Horizontal 1:1000 Vertical 1:200
SEWER LONGSECTION LINE 5



Horizontal 1:1000 Vertical 1:200
SEWER LONGSECTION LINE 6

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C			
B			
A	1ST ISSUE	??-??-??	KH GMcG
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
SANITARY SEWER LONGSECTIONS LINES 3, 5 & 6

DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:1000H 1:200V @ A3	STATUS AS BUILTS	
DWG NUMBER AB654		REVISION A	

10
8
6
4
2
0
SCALE 1:200

0 10 20 30 40 50 SCALE 1:1000

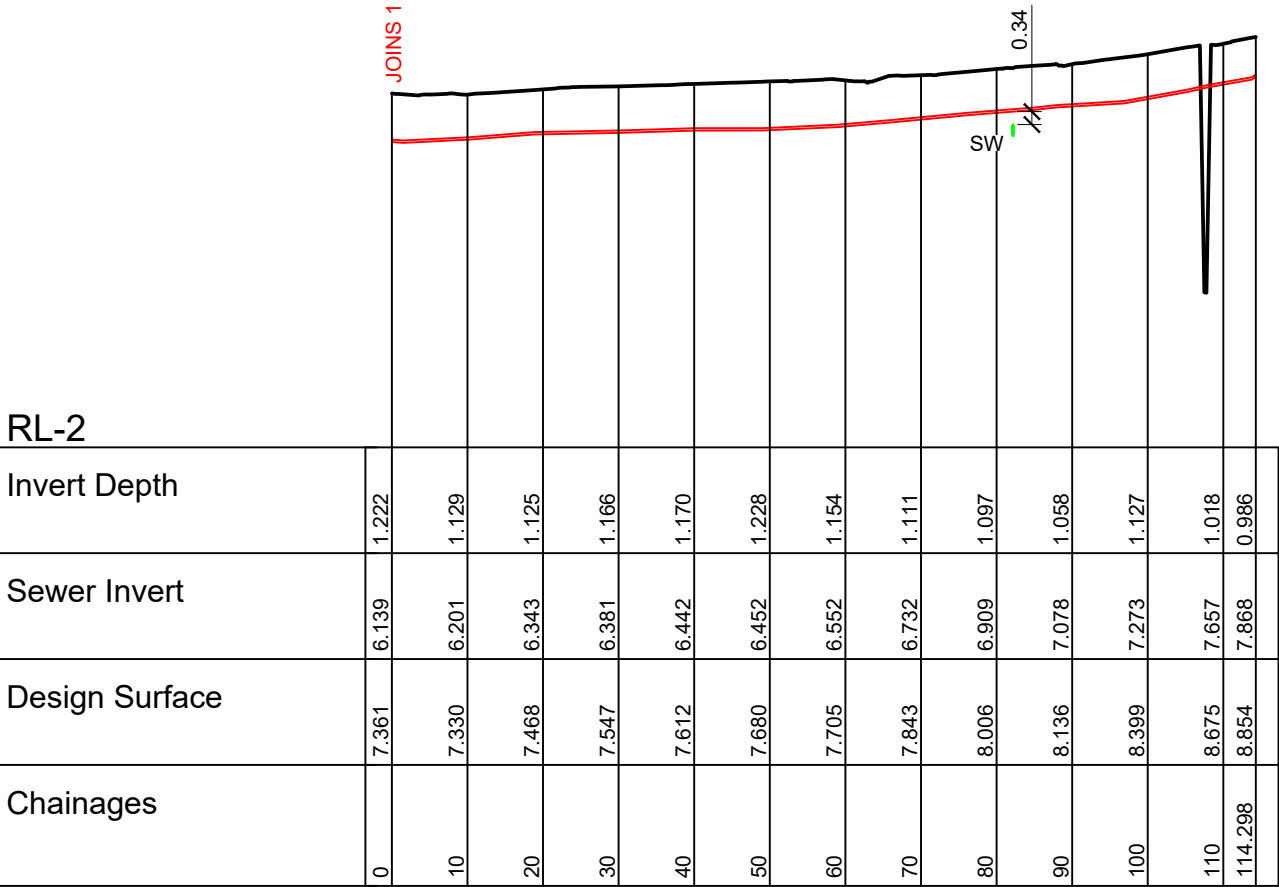
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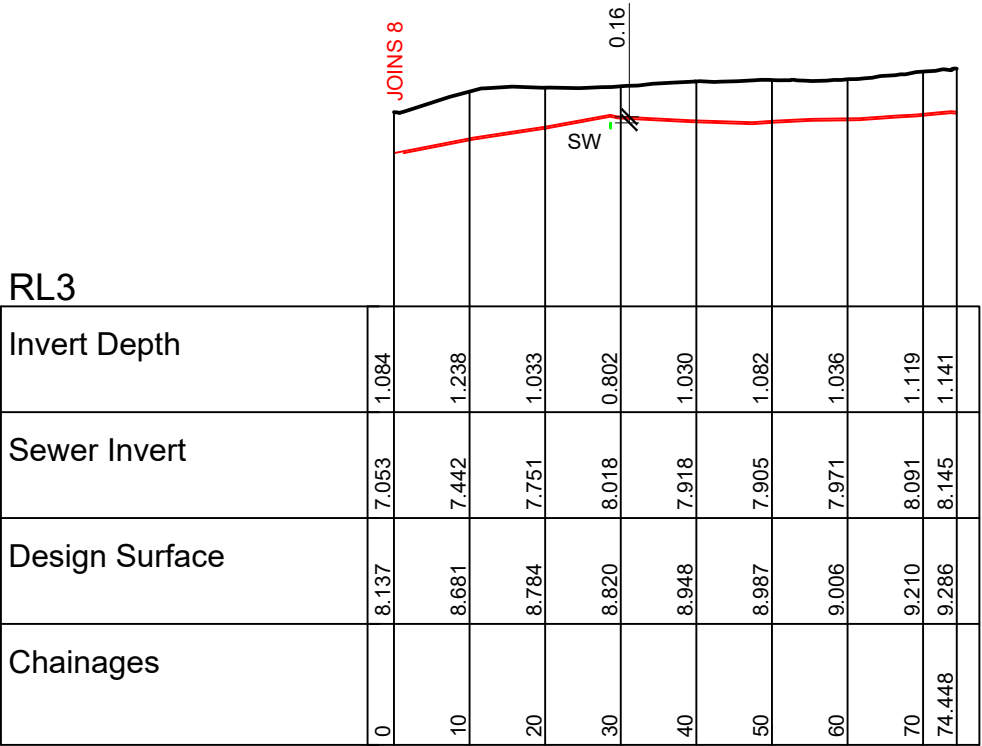
- NOTES:
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 - ALL LPS SIZES ARE OUTSIDE DIAMETER (OD).
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KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SW = PROPOSED STORMWATER
WATER = POTABLE WATER

BACKFILL 



Horizontal 1:1000 Vertical 1:200
SEWER LONGSECTION LINE 8




Horizontal 1:1000 Vertical 1:200
SEWER LONGSECTION LINE 9

10
8
6
4
2
0

0 10 20 30 40 50 SCALE 1:1000

DATE PLOTTED: Thursday, 25 June 2020 11:25:55 a.m. FILE PATH: C:\Users\Karren\AppData\Local\Temp\BricsCAD\bp_1\14333-003-AB650-SS LS.dwg


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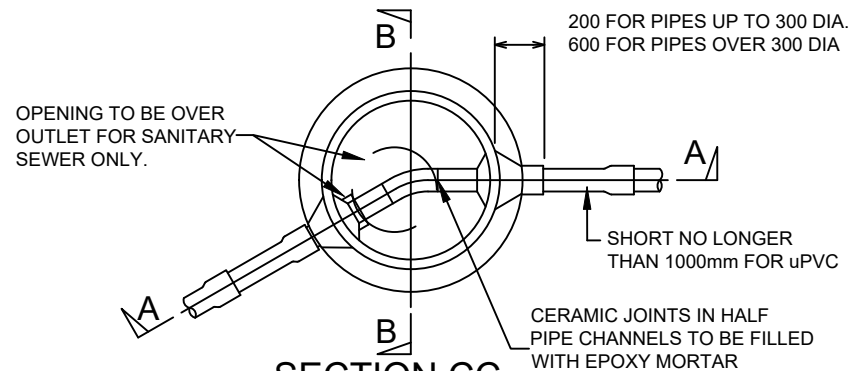
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A	1ST ISSUE	??-??-??	KH GMcG
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
SANITARY SEWER LONGSECTIONS LINES 8 & 9

DATE CREATED ???	DRAWN K HANSARD	DESIGNED ???	APPROVED G MCGREGOR
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DWG NUMBER AB655			REVISION A

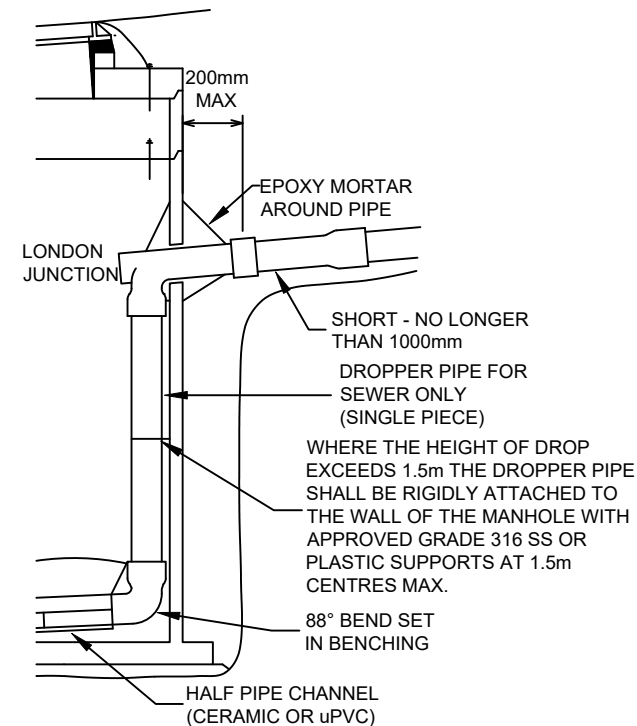
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NOTES:

1. THIS DETAIL IS APPLICABLE FOR PIPE DIAMETERS UP TO 600mm & FOR MANHOLE DEPTHS UP TO 5.0m.
2. ALL STEEL FITTINGS TO BE HOT DIP GALVANISED ZINC COATINGS TO BE NOT LESS THAN 700g/m
3. 150mm THICK REINFORCED CONCRETE LIDS WITH HEAVY DUTY DUCTILE IRON FRAMES & COVERS TO BE USED IN DRIVEWAYS, CARRIAGEWAYS & BERMS. 100mm THICK CONCRETE LIDS WITH LIGHT DUTY CAST IRON FRAMES & COVERS MAY BE USED ELSEWHERE.
4. PRECAST MANHOLE BASES SHALL BE USED IN ALL INSTANCES WITH MINIMUM SIZED HOLES CUT FOR PIPE ENTRY.
5. NO ADDITIONAL THIN PLASTERING OF BENCHING OR INVERTS IS PERMITTED.
6. ALL MANHOLE THROATS ARE TO BE PAINTED GREEN FOR STORMWATER, RED FOR SEWER. PAINTING ON MANHOLE COVERS IS OPTIONAL. IF COVERS ARE PAINTED THEY SHALL BE GREEN FOR STORMWATER, RED FOR SEWER WITH 50mm WIDE WHITE STRIP PAINTED THROUGH THE CENTRE OF THE COVER.
7. ALL CONCRETE TO BE 20 MPa AT 28 DAYS.
8. STORMWATER MANHOLES DO NOT REQUIRE HALF PIPE CHANNELS, OR SHORT PIPE SECTIONS BEYOND THE ENTRY OR EXITS.
9. STEPPED RUNGS NOT TO BE PROVIDED FOR SEWER MANHOLES.
10. BASE TO BE COMPACTED TO RESILIENT MODULUS OF 40 MPa FOR ALL PIPES, MANHOLES, SUMPS, PITS, ETC.

SECTION CC



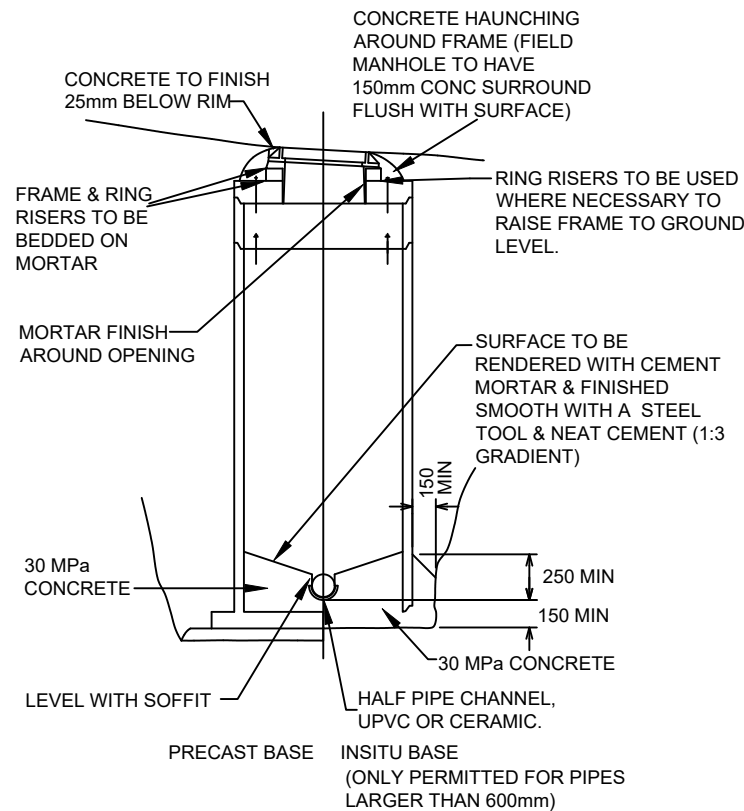
SECTION A-A INTERNAL DROP

NOTE:

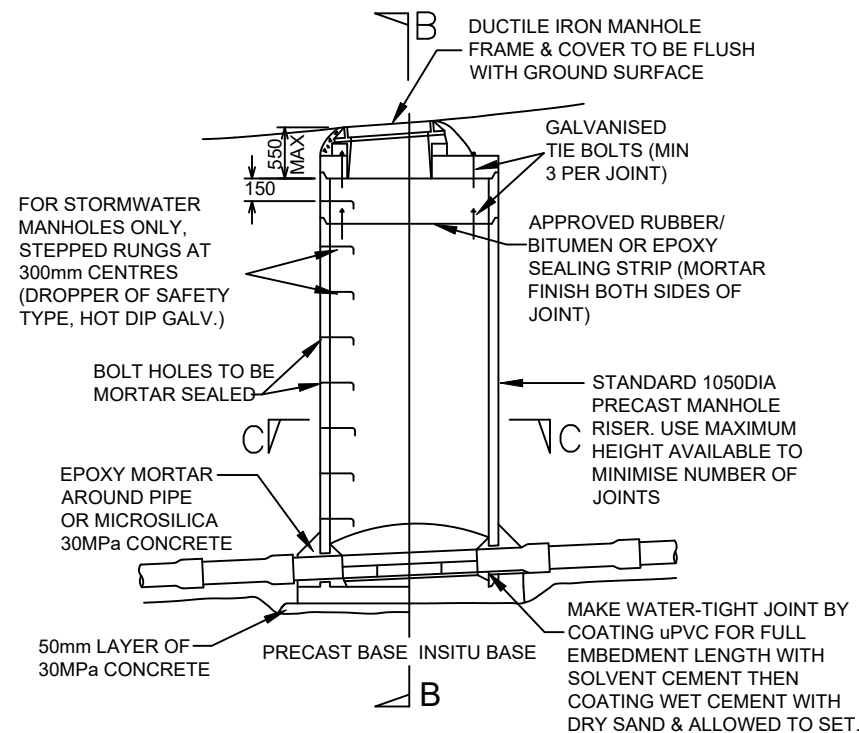
1. THIS DETAIL IS APPLICABLE FOR PIPE DIAMETERS UP TO 250mm & FOR MANHOLE DEPTHS UP TO 5.0m & FOR MANHOLE DIAMETERS > 1200mm
2. FOR MANHOLE DIAMETERS < 1200mm AN EXTERNAL DROP MUST BE USED (SEE NZS 4404, SHEET CM-004)

STANDARD PRECAST MANHOLE (SEWER & STORMWATER)

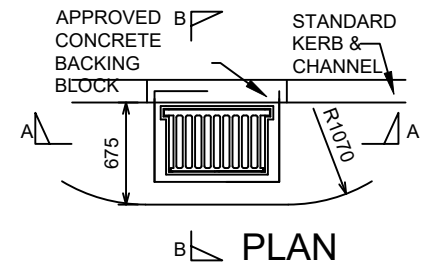
REFER TO NZS 4404:2010
NOT TO SCALE



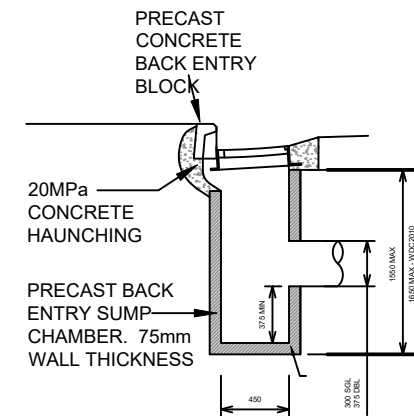
SECTION BB



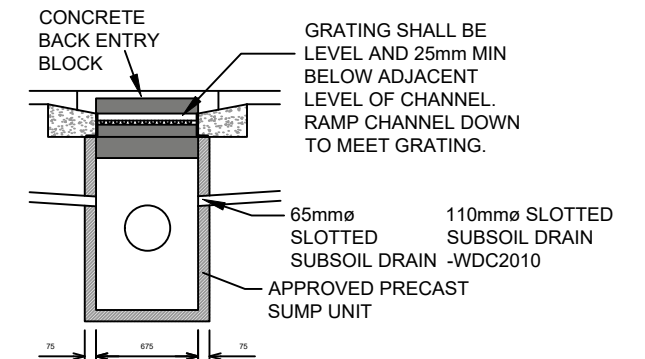
SECTION AA



PLAN

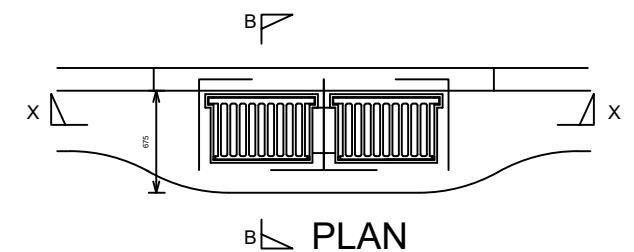


SECTION B-B

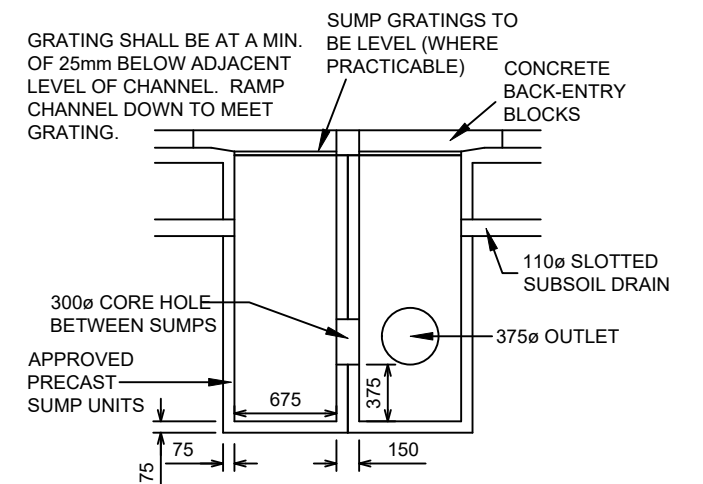


SECTION A-A SINGLE SUMP

SHEET 34 WDC EES 2010 - NOT TO SCALE



PLAN



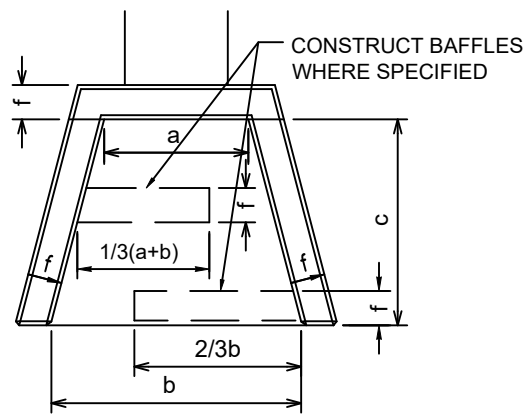
SECTION X-X DOUBLE SUMP

SHEET 34 WDC EES 2010 - NOT TO SCALE

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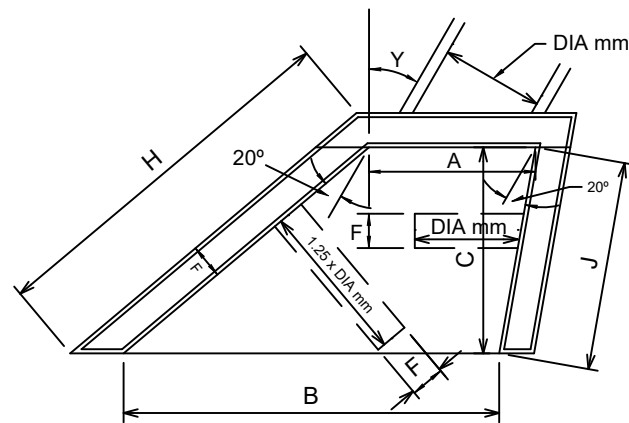
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DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
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DWG NUMBER AB670			REVISION A



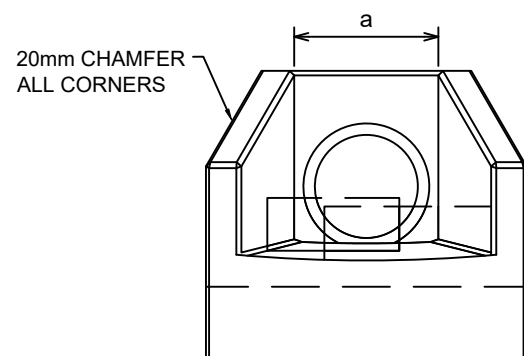
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SHEET 35 WDC EES 2010 - NOT TO SCALE



PLAN

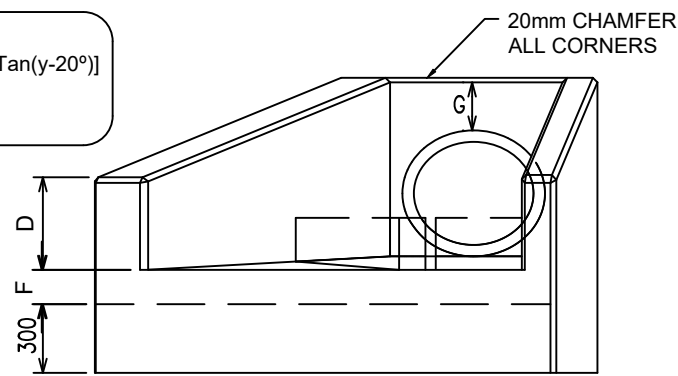
SHEET 35 WDC EES 2010 - NOT TO SCALE



END ELEVATION

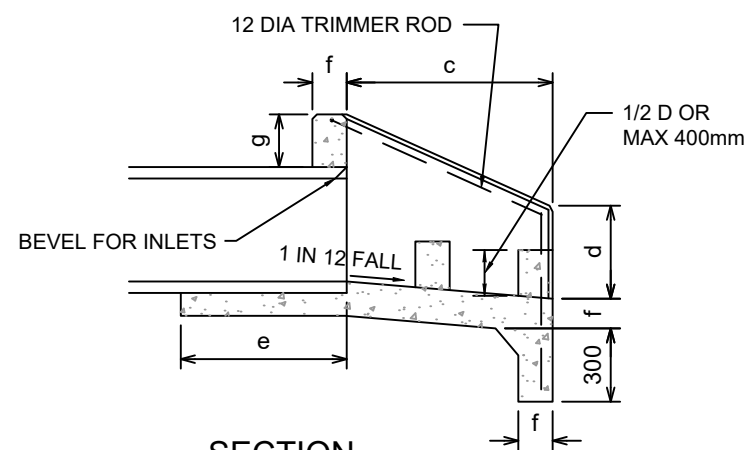
SHEET 35 WDC EES 2010 - NOT TO SCALE

- A. $\text{Sec } y \times (a)$
- B. $C \tan (y+20^\circ) + [A-C \tan (y-20^\circ)]$
- H. $C \times \text{Sec } (y + 20^\circ)$
- J. $C \times \text{Sec } (y - 20^\circ)$



END ELEVATION

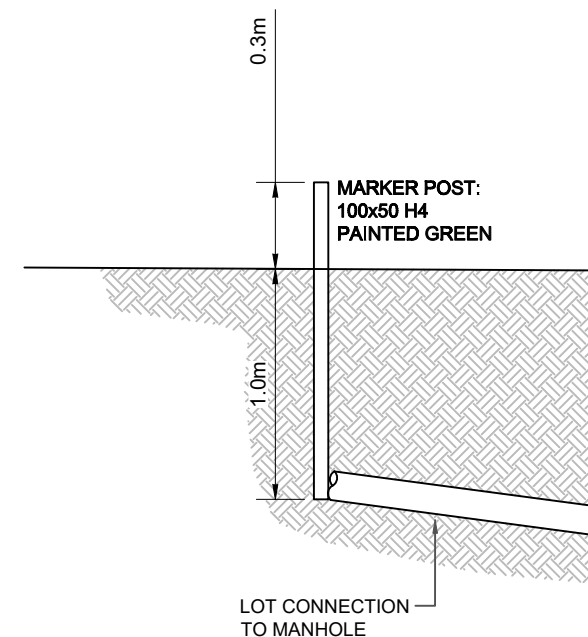
SHEET 35 WDC EES 2010 - NOT TO SCALE



SECTION

SHEET 35 WDC EES 2010 - NOT TO SCALE

PRINCIPAL DIMENSIONS (mm)							
DIA OF PIPE	a	b	c	d	e	f	g
150	300	450	600	200	325	100	150
230	380	600	700	250	425	100	150
300	450	750	750	300	525	100	150
375	550	900	850	350	625	100	150
450	630	1100	900	400	725	150	230
525	700	1200	1000	450	825	150	230
600	800	1400	1100	550	900	150	230
750	1000	1700	1200	600	1050	150	300
900	1170	2000	1450	650	1225	150	300
1050	1380	2300	1700	750	1375	150	300
1200	1520	2600	2100	750	1550	150	450
1350	1680	2800	2400	750	1725	150	450



TYPICAL STORMWATER CONNECTION MARKER DETAIL

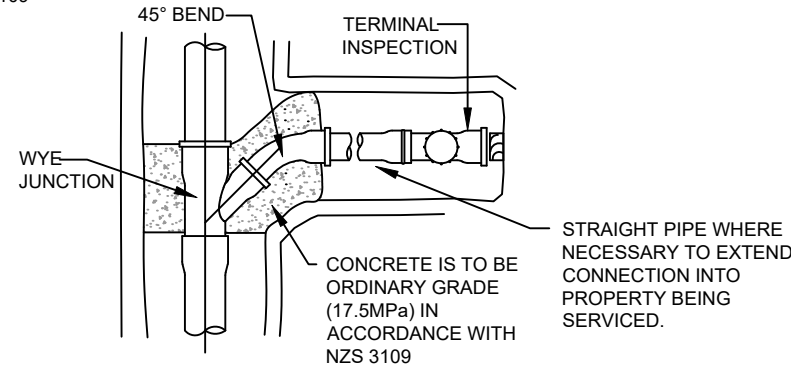
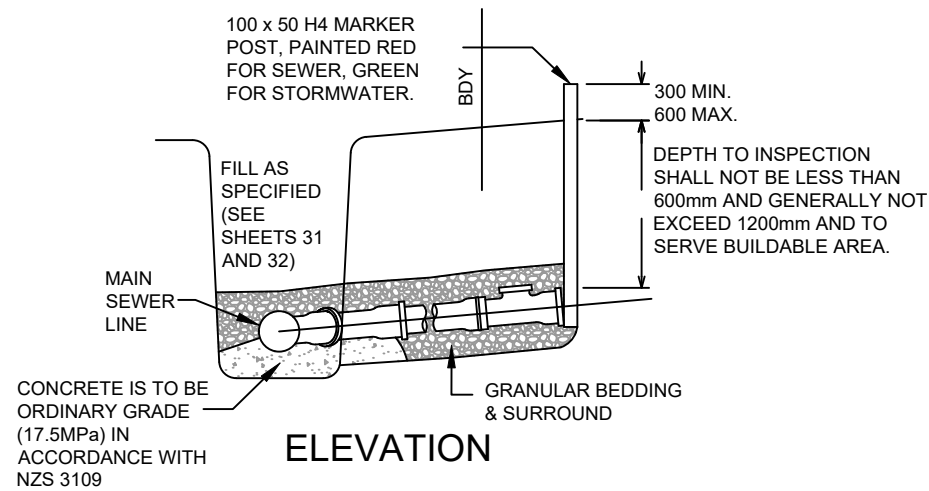
NTS

NOTES:

- REINFORCE FLOORS & WALLS WITH:
 - 150 - 375 665 MESH
 - 450 - 600 633 MESH OR D10 RODS AT 250 CRS
 - 675 - 900 D12 RODS AT 250 CRS
 - 1050 - 1350 D12 RODS AT 150 CRS
- ALL REINFORCEMENT SHALL BE PLACED CENTRALLY IN WALLS AND FLOOR, AND SHALL BE CONTINUOUS BETWEEN WALLS AND FLOOR.
- LAPS IN STRUCTURAL GRADE BARS TO BE 300 MIN.
- THERE SHALL BE A LEAST 2 BARS - WHETHER MESH OR M.S. OVER THE TOP OF THE PIPE.
- CONCRETE IS TO BE ORDINARY GRADE (17.5MPa) IN ACCORDANCE WITH NZS 3109.
- BAFFLES ARE TO BE CONSTRUCTED AS SHOWN WHEN OUTLET VELOCITIES AND SOIL CONDITIONS DICTATE, IN EXTREME CASES SPECIFIC DESIGN MAY BE REQUIRED BY THE COUNCIL.
- INLET STRUCTURES SHALL HAVE REVERSE APRON FALL AND NO BAFFLES.

INLET AND OUTFALL STRUCTURES

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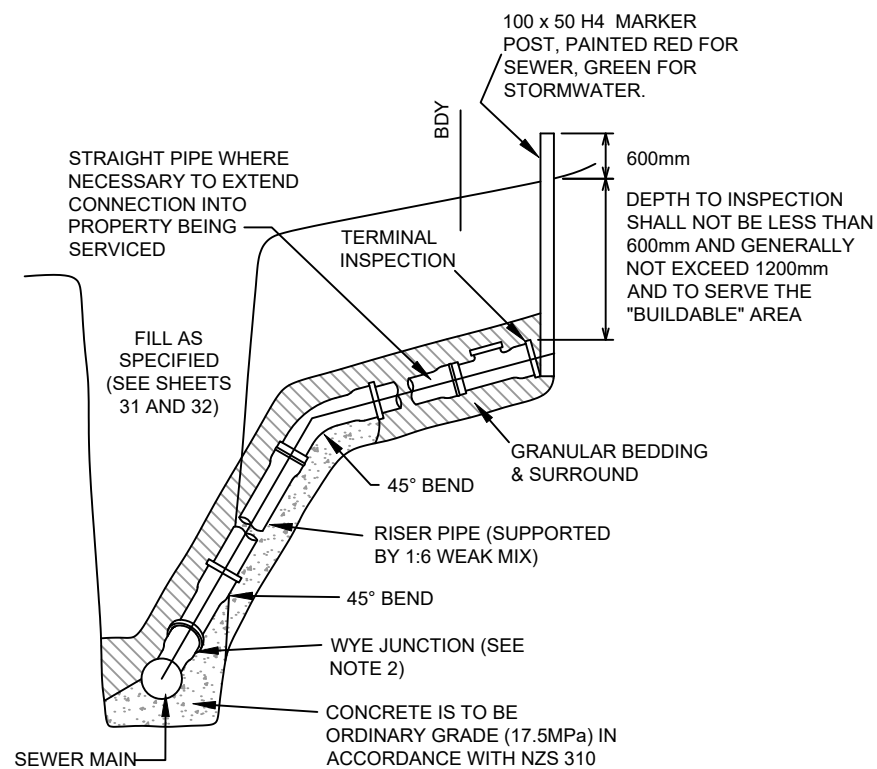
- NOTES:
1. THE TERMINAL INSPECTION SHALL BE LOCATED NOT LESS THAN 300mm INSIDE THE PROPERTY BEING SERVICED AND BE FREE OF OBSTRUCTIONS.
 2. FOR STORMWATER CONNECTIONS, JUNCTIONS TO BE (IN ORDER OF PREFERENCE):
 - a. PREFABRICATED STANDARD WYE JUNCTIONS
 - b. PREFABRICATED FACTORY SPECIAL CONNECTION
 - c. FIELD FABRICATED EPOXY MORTARED SADDLE FLANGE CONNECTION WITH APPROPRIATE INSERT ADAPTOR.
 3. TERMINAL BLANK END REQUIRED FOR STORMWATER CONNECTIONS.
 4. PIPES AND FITTINGS ARE TO BE SEWER GRADE uPVC, VITRIFIED CLAY, CONCRETE OR CERAMIC AND TO RELEVANT NZ STANDARD.
 5. PIPELINES THAT ARE LIKELY TO CARRY COMMERCIAL OR INDUSTRIAL WASTE ARE TO SATISFY THE MANUFACTURER'S REQUIREMENTS.
 6. SPECIFIC DESIGN MAY BE REQUIRED IN POTENTIALLY UNSTABLE AREAS.
 7. JOINT FLEXIBILITY IS TO BE MAINTAINED WHERE PIPELINES ARE IN CONTACT WITH CONCRETE. PIPES SHALL BE SEPARATED FROM CONCRETE USING DPC.
 8. AS-BUILT PLANS ARE REQUIRED FOR ALL CONNECTIONS.

MARKING OF SS & SW CONNs

NOTE THAT RED PAINT IS NO LONGER TO BE USED FOR SW SERVICES. IT IS FOR SEWER SERVICES ONLY.

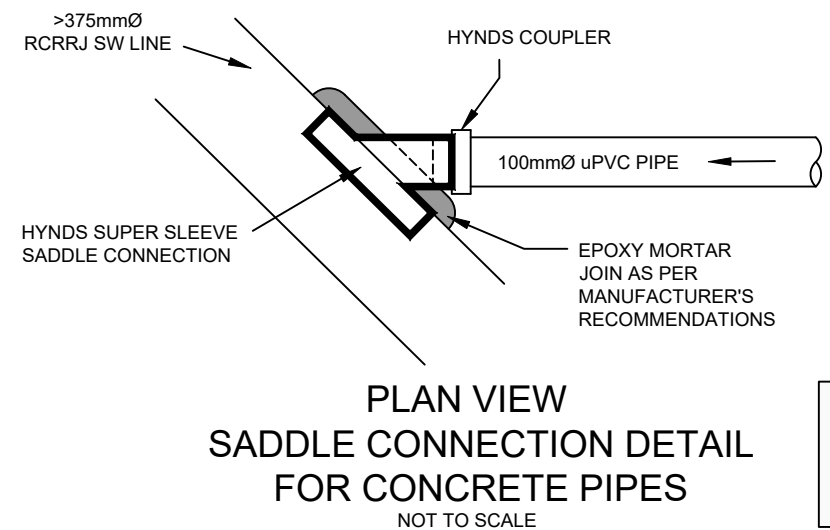
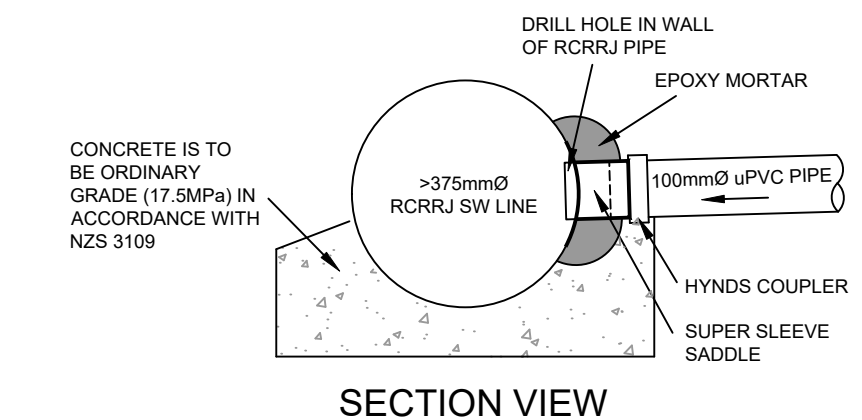
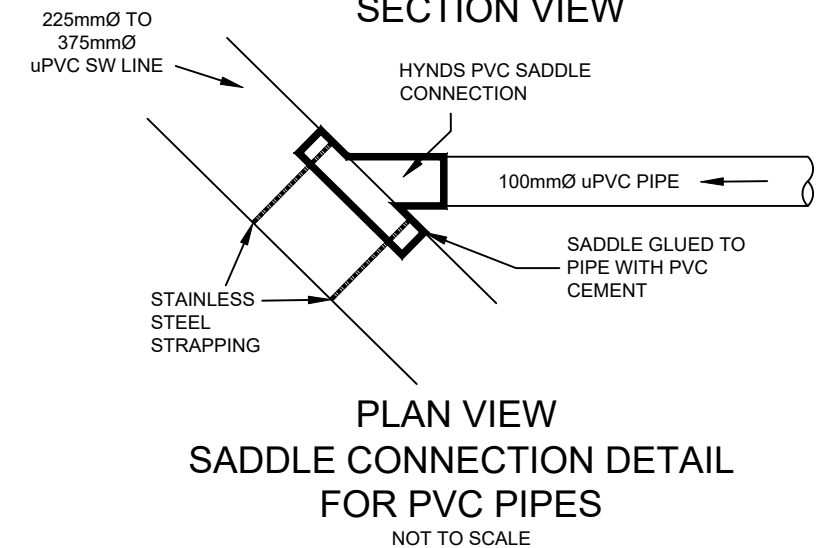
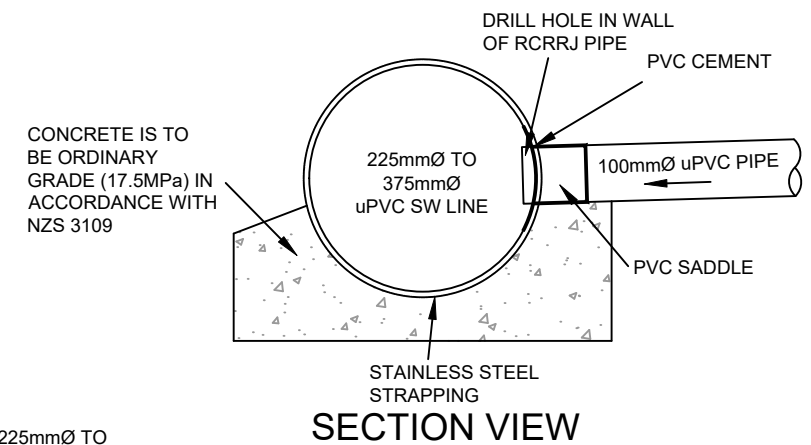
CONNECTIONS SHALL BE SEALED WITH REMOVABLE CAPS UNTIL REQUIRED. THE CAPS ARE TO BE PAINTED:
RED FOR SEWER WITH 'SS' PAINTED/FIXED ONTO THE END CAP.
GREEN FOR STORMWATER WITH 'SW' PAINTED/FIXED ONTO THE END CAP.

POSITIONS ARE ALSO TO BE MARKED WITH A WOODEN STAKE (MIN 100x50) EXTENDING FROM THE INVERT OF THE CONNECTION TO 600mm ABOVE GROUND LEVEL. STAKES ARE TO BE PAINTED:
RED FOR SEWER WITH 'SS' PAINTED/FIXED ONTO THE STAKE
GREEN FOR STORMWATER WITH 'SW' PAINTED/FIXED ONTO THE END CAP.



RAMPED RISER CONNECTION

SHEET 36 WDC EES 2010 - NOT TO SCALE
 (REQUIRES SPECIFIC APPROVAL)



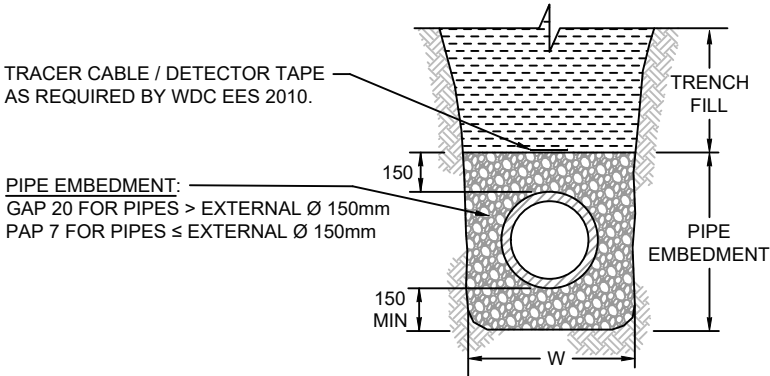
STORMWATER AND SEWER CONNECTIONS FOR ALL ENVIRONMENTS

C		
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DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G McGREGOR
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DWG NUMBER AB672			REVISION A

ACID SULPHATE NOTE:

CALCIUM CARBONATE (AGRICULTURAL LIME) TO BE MIXED IN WITH THE BEDDING AND BACKFILL AROUND WHERE ALL STANDARD CONCRETE PIPES AND MANHOLES ARE TO BE INSTALLED. LIMING RATE 23KG/CaCO3/TONNE OF SOIL. AS A PERCENTAGE ~2.5% BY WEIGHT LIME MIXED IN WITH THE SOIL. ALL METAL FITTINGS AND CONNECTIONS TO BE PAINTED OR WRAPPED TO BE PROTECTED FROM THE SOIL.

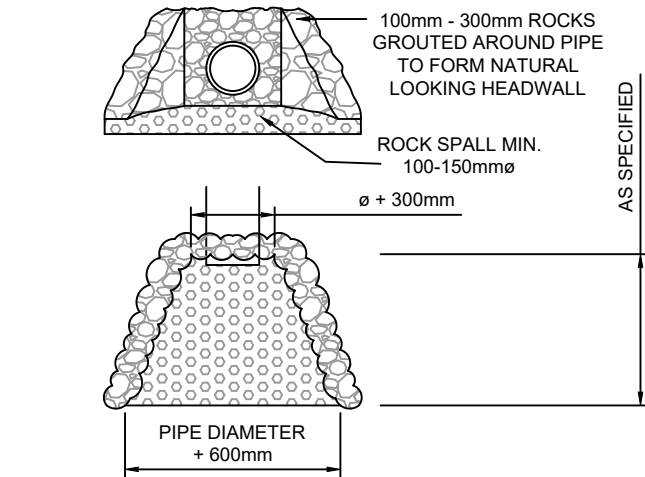


PIPE BEDDING DETAIL FOR
STORMWATER (CONCRETE OR uPVC),
GRAVITY SEWER (uPVC), WATERMAIN
(PE80) & LOW PRESSURE SEWER (PE100)

(NZS 4404-2010, CM002)
FOR FLEXIBLE & RIGID PIPES (SEE NOTE 4)

W	TYPE OF PIPE
D + 450	CONCRETE
D + 450	uPVC, PE & PP

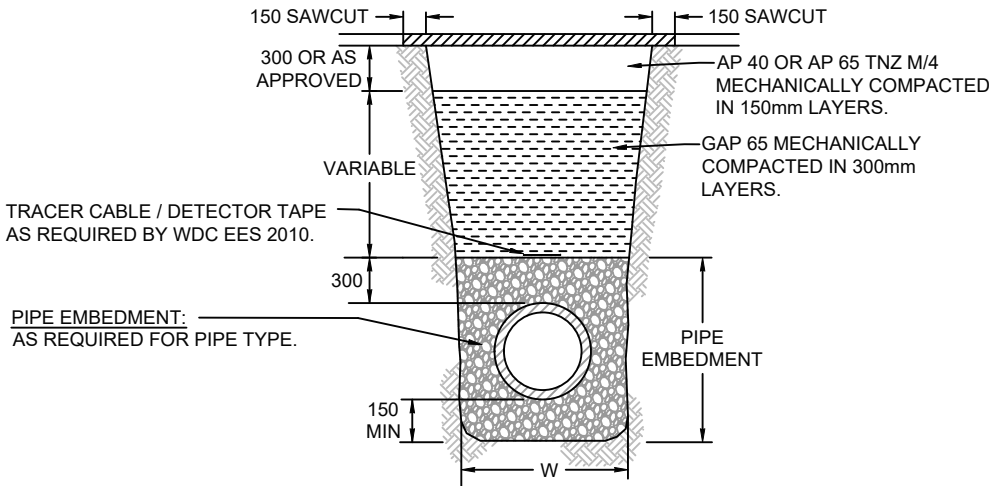
VARIATION IN W REQUIRE ADDITIONAL
DESIGN COMPENSATION.
D = EXTERNAL Ø OF PIPE



TYPICAL OUTLET/HEADWALL DETAIL

NOTES

- SEE CONSTRUCTION NOTES DD002.
- ALL DIMENSIONS IN MILLIMETRES.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH NZS 4404-2010 SHEET CM-001 & CM-002.
- PIPE CLASSIFICATION:
 - RIGID PIPES: VC, RC, STEEL, AND DI.
 - FLEXIBLE PIPES: PVC, GRP, AND PE.
- PLACEMENT OF EMBEDMENT, TRENCHFILL & COMPACTION TO MEET THE REQUIREMENTS OF DRAWINGS AND SPECIFICATIONS.
- EXCAVATE OR COMPACT TRENCH FLOOR TO PROVIDE A FLAT FIRM BASE TO SUPPORT BEDDING MATERIAL AND MINIMISE PIPELINE SETTLEMENT. WHEN EXCAVATED, REPLACE WITH GRANULAR MATERIAL AS SPECIFIED & SUPPORT AS REQUIRED.
- ENSURE BEDDING IS DEEP ENOUGH THAT PIPE JOINT PROJECTIONS (SOCKETS, FLANGES) DO NOT TOUCH TRENCH FLOOR - SEE NZS 4404-2010 SHEET CM-001.
- IN SOME AREAS LOCAL PRACTICE MAY ALLOW USE OF SELECTED EXCAVATED MATERIAL AS PIPE EMBEDMENT.
- IN UNSUITABLE GROUND CONDITIONS SPECIFIC DESIGN IS REQUIRED REFER TO WSA 03 & WSA 04 (WATER SERVICES ASSOCIATION OF AUSTRALIA) DRAWINGS FOR GUIDANCE.
- CONCRETE PIPES SHOULD BE BASED ON FIGURES 11 TO 13 IN AS/NZS 3725.



PIPE BEDDING DETAIL WITH ADDITIONAL
BACKFILL REQUIREMENTS UNDER
CARRIAGEWAYS

(ALL TYPES OF PIPE)

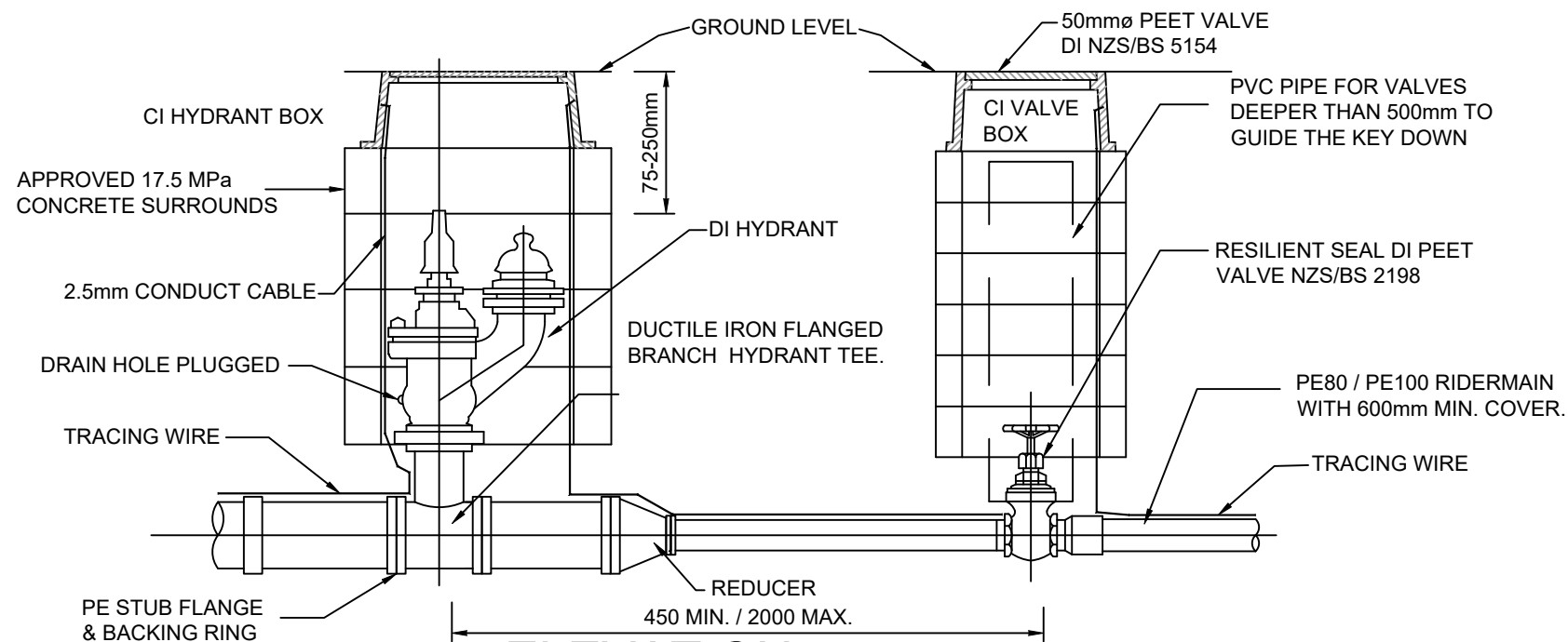
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PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE
TYPICAL TRENCH & HEADWALL DETAILS

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE NTS @ A3		STATUS AS BUILTS
DWG NUMBER AB673			REVISION A



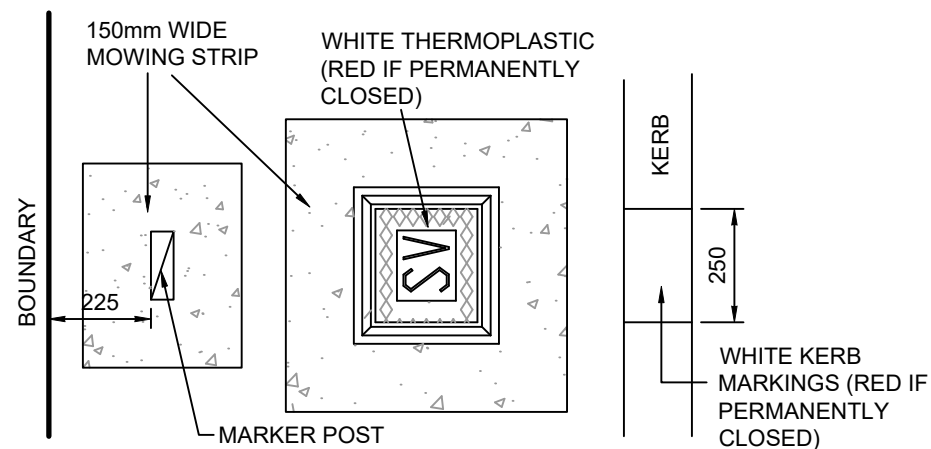
ELEVATION

FH & VALVE INSTALLATION DETAILS

NOT TO SCALE

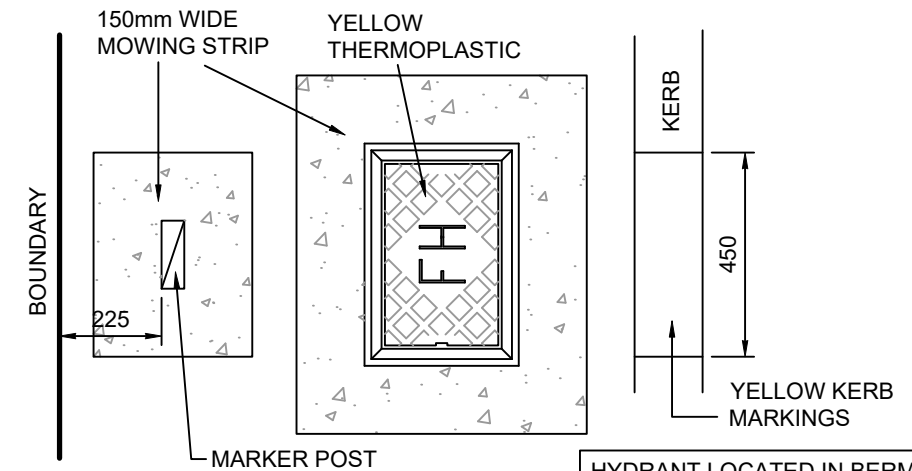
NOTES

1. DEFLECTION OF JOINTS IS NOT TO EXCEED THE MANUFACTURER'S RECOMMENDATION.
2. WHERE THERE ARE MORE THAN 15 CONNECTIONS FROM A RIDER MAIN, AN ISOLATING PEET VALVE SHOULD BE PROVIDED IN THE MIDDLE OF THE RIDER MAIN.
3. ALL UNDERGROUND BOLTS TO BE STAINLESS STEEL AND WRAPPED WITH DENSO TAPE, MASTIC AND POLYTAPE.
4. SERVICE CONNECTIONS TO TERMINATE JUST OUTSIDE FRONT BOUNDARY WITH AN APPROVED MANIFOLD, METER BOX (INCLUDING BASE) AND DIAPHRAGM VALVE INCLUDING DUAL CHECK VALVE.
5. DIMENSIONS TO BE SUPPLIED WITH AS-BUILTS.



VALVE MARKING

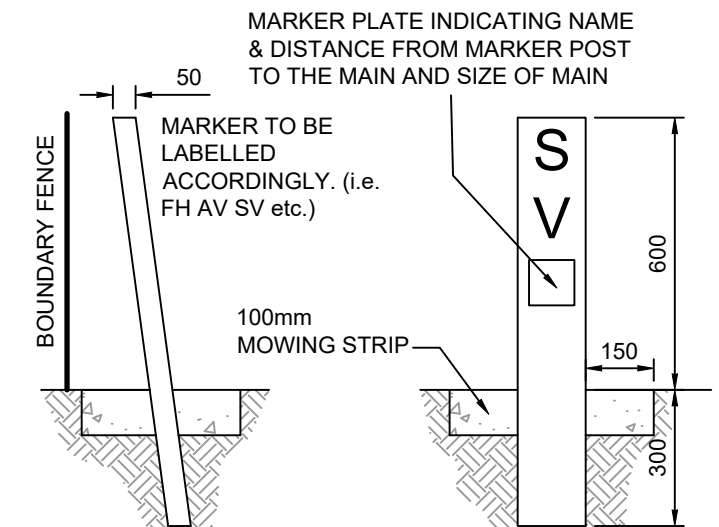
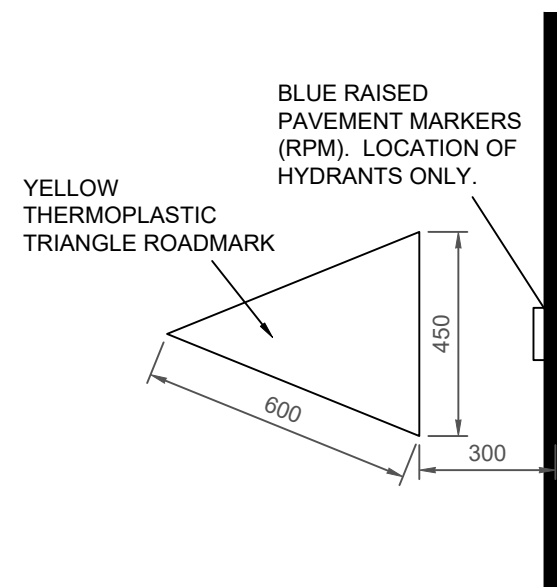
NOT TO SCALE



HYDRANT LOCATED IN BERM AREA

HYDRANT MARKINGS

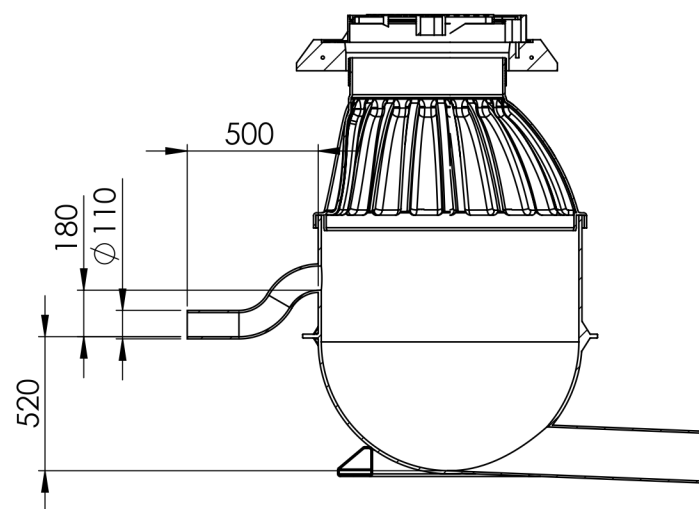
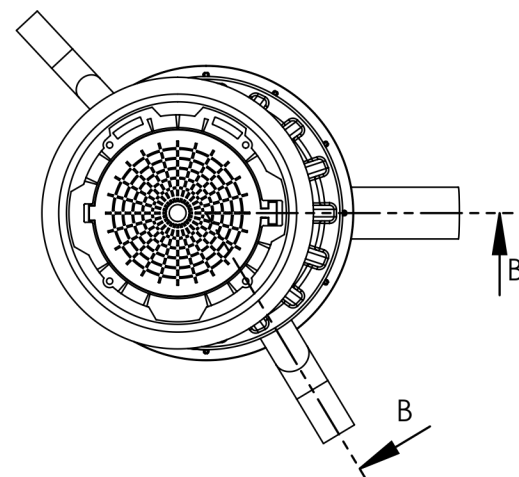
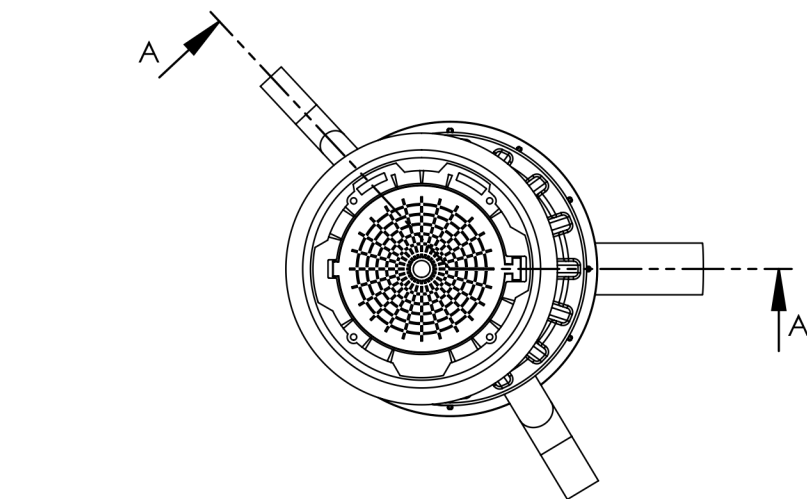
NOT TO SCALE



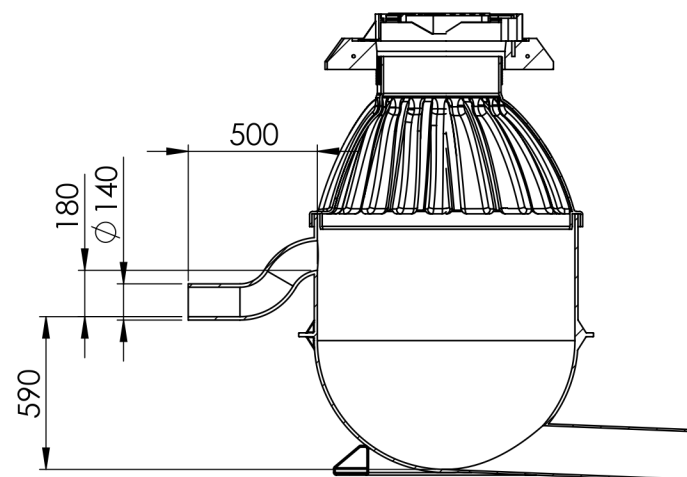
MARKER POST TO BE WHITE PLASTIC FOR VALVES & YELLOW PLASTIC FOR HYDRANTS. THE NAME OF THE VALVE SHALL BE SUPPLIED BY WDC WATER SERVICES

HYDRANT/VALVE MARKER POSTS

NOT TO SCALE




SECTION A-A

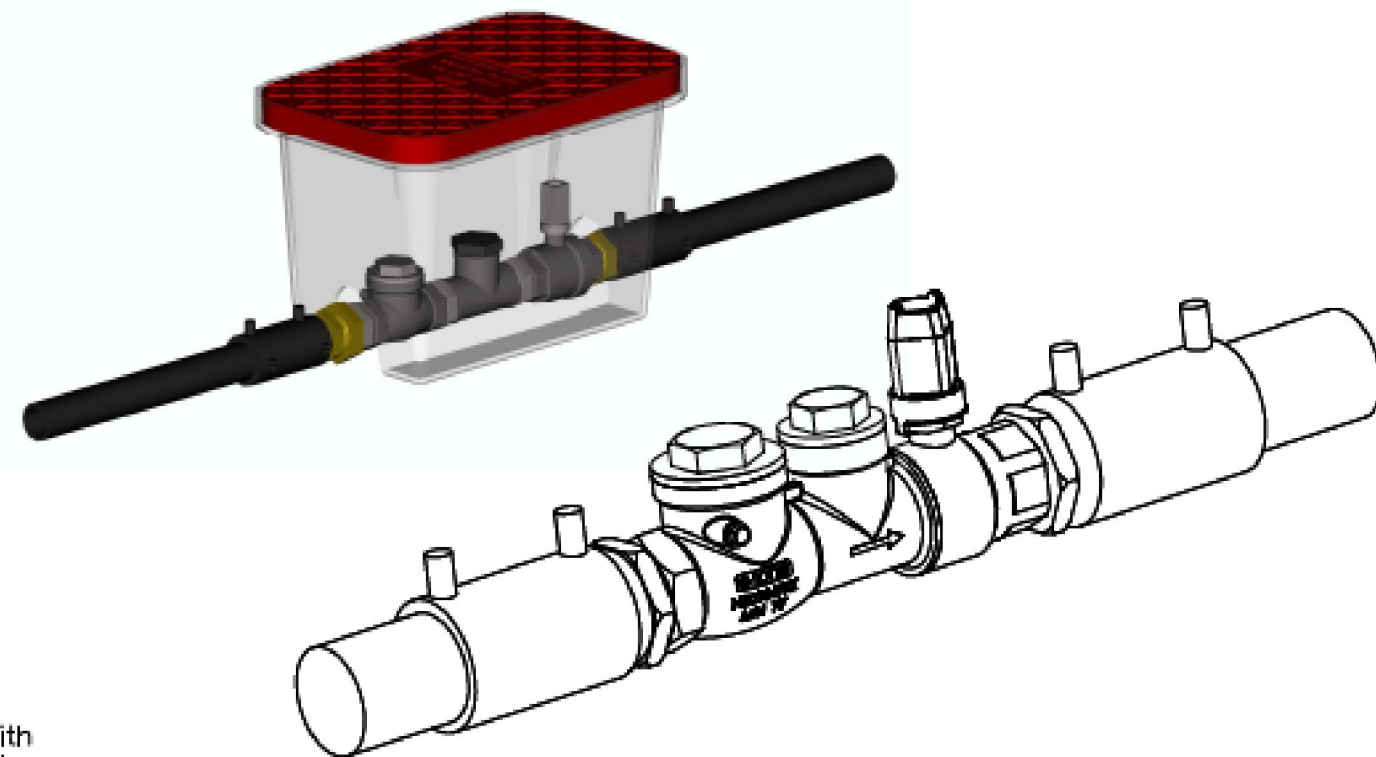
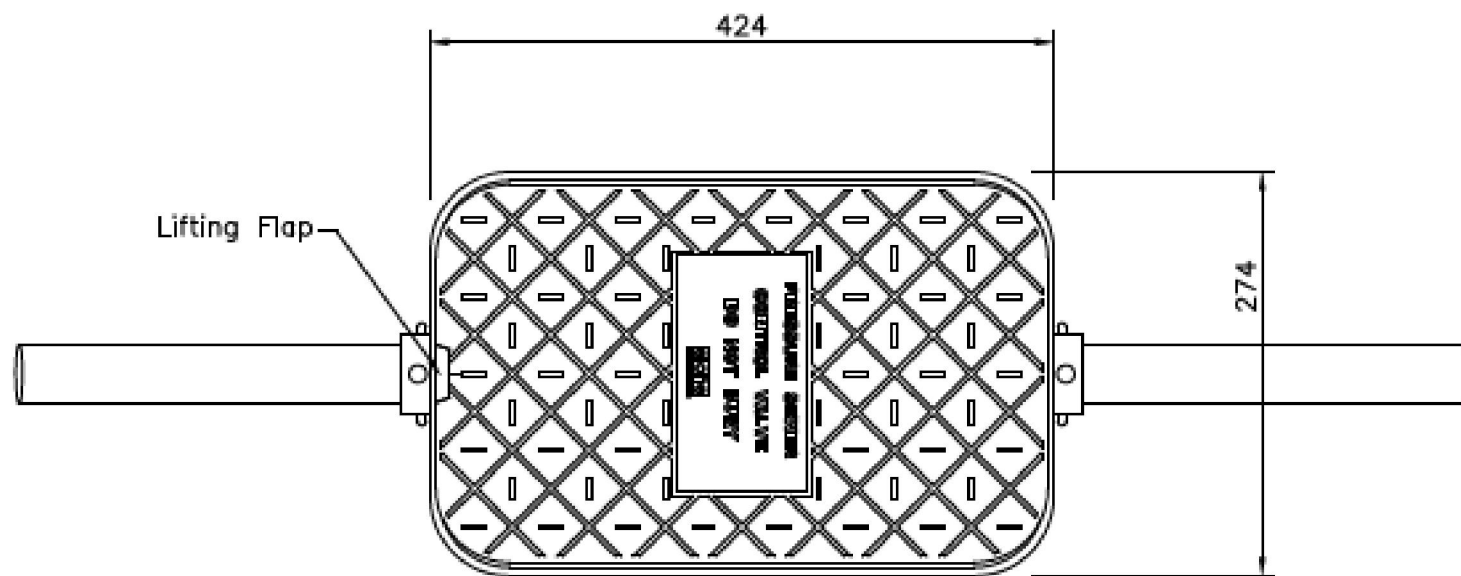


SECTION B-B

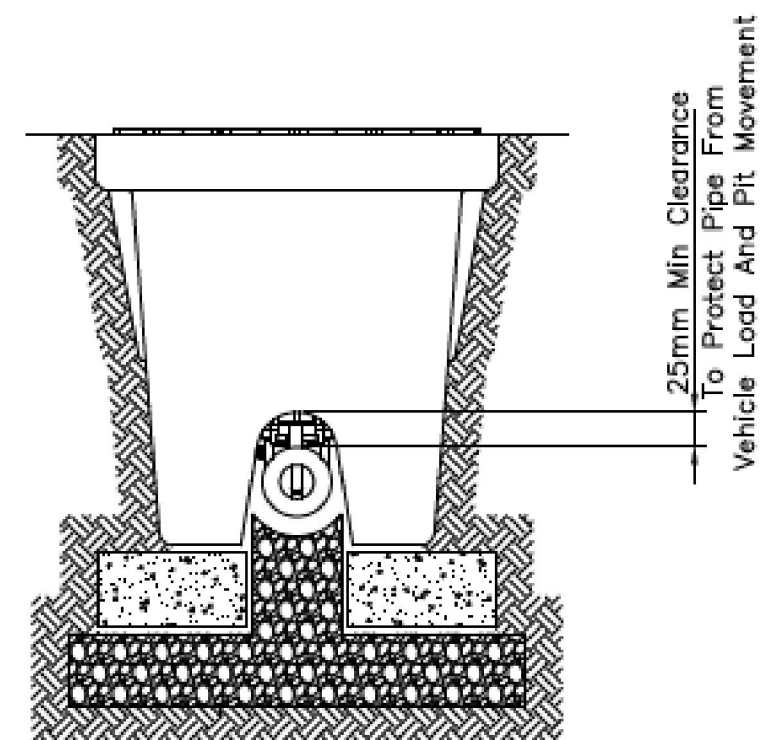
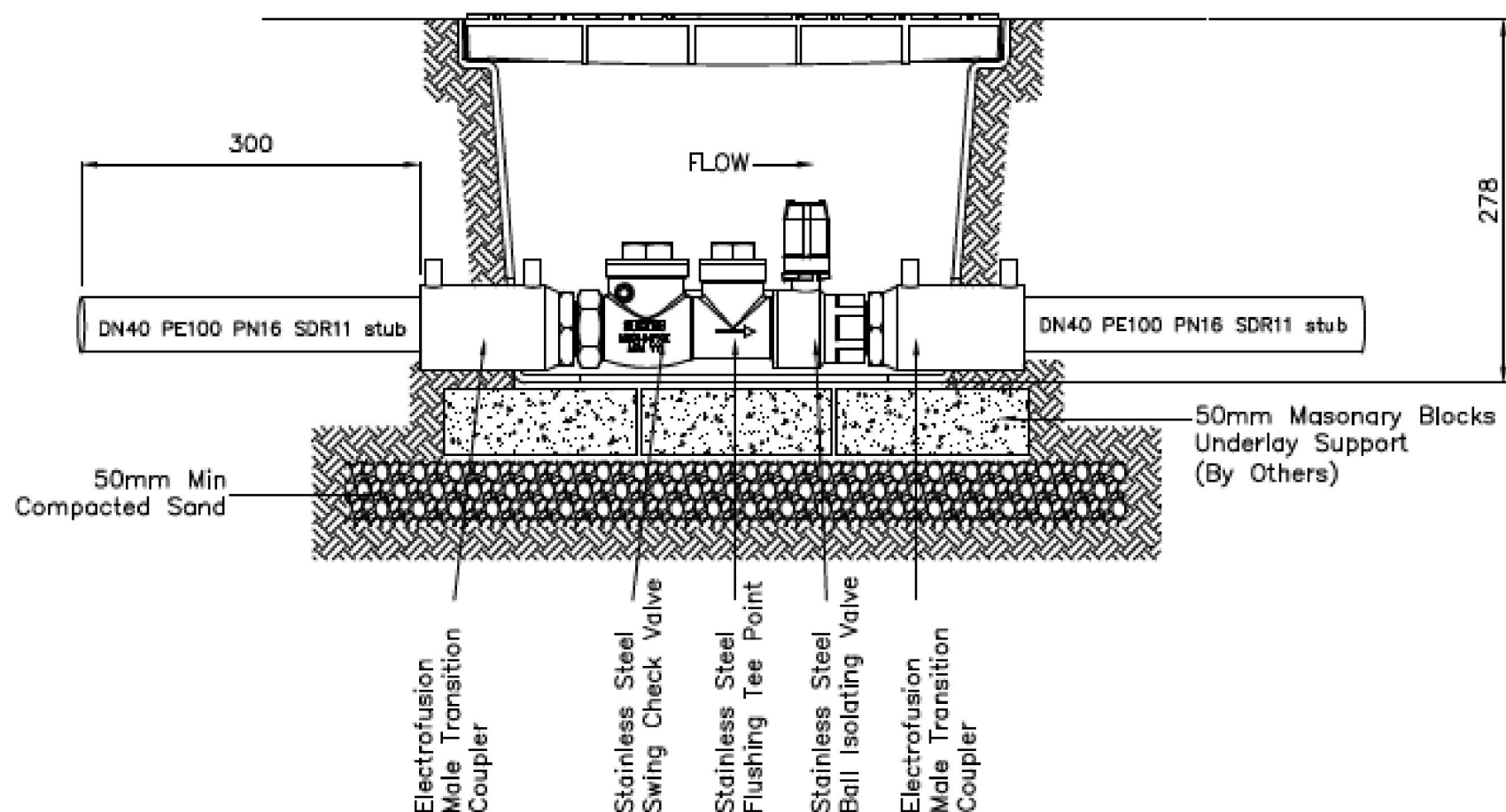
G.M.

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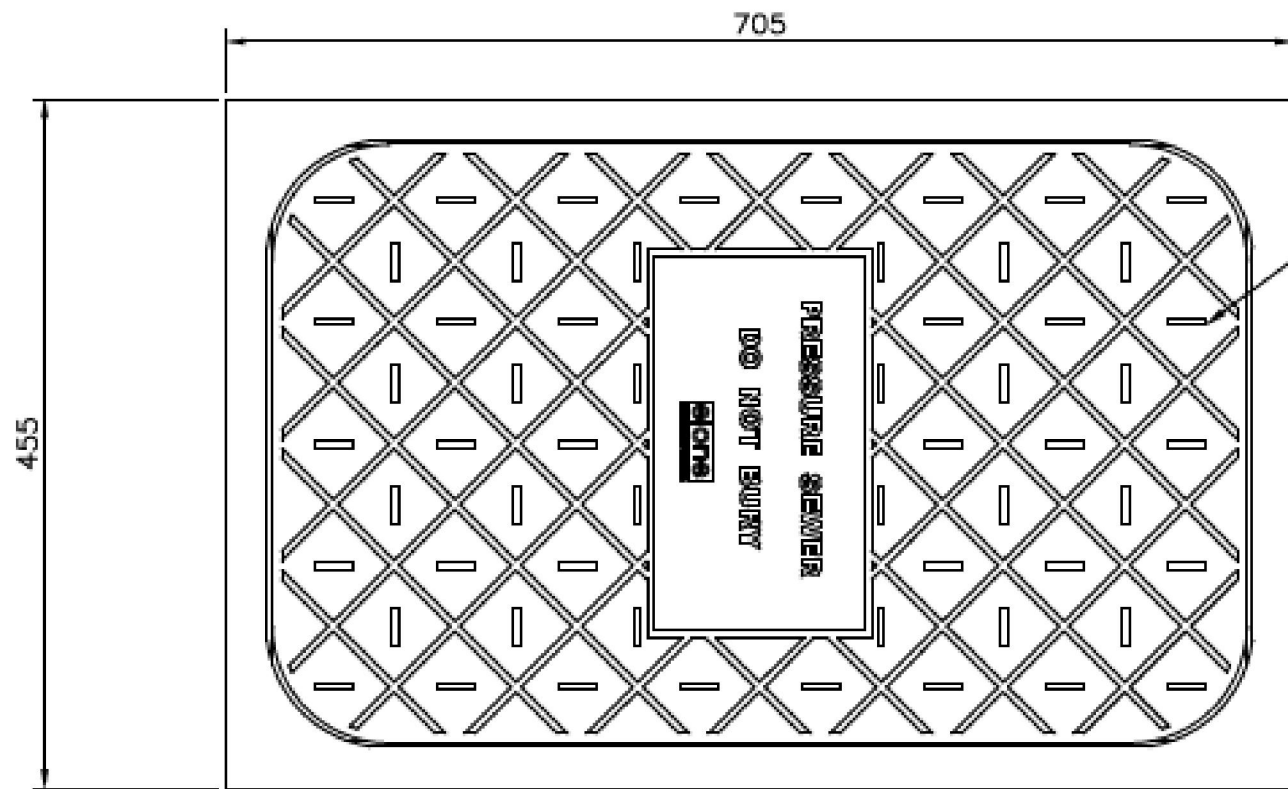
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:				FINISH:		DEBUR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION 1	
FOR APPROVAL											
 AUSTRALASIA MOULDING LTD											
DRAWN		NAME S.McDonald		SIGNATURE		DATE 16.05.19		DWG NO.		Discharge Chamber	
CHK'D										A3	
APPV'D											
MFG											
Q.A						MATERIAL: ROMOLD PE Base ROMOLD PP Cone Concrete LDR DI Cover					
</											



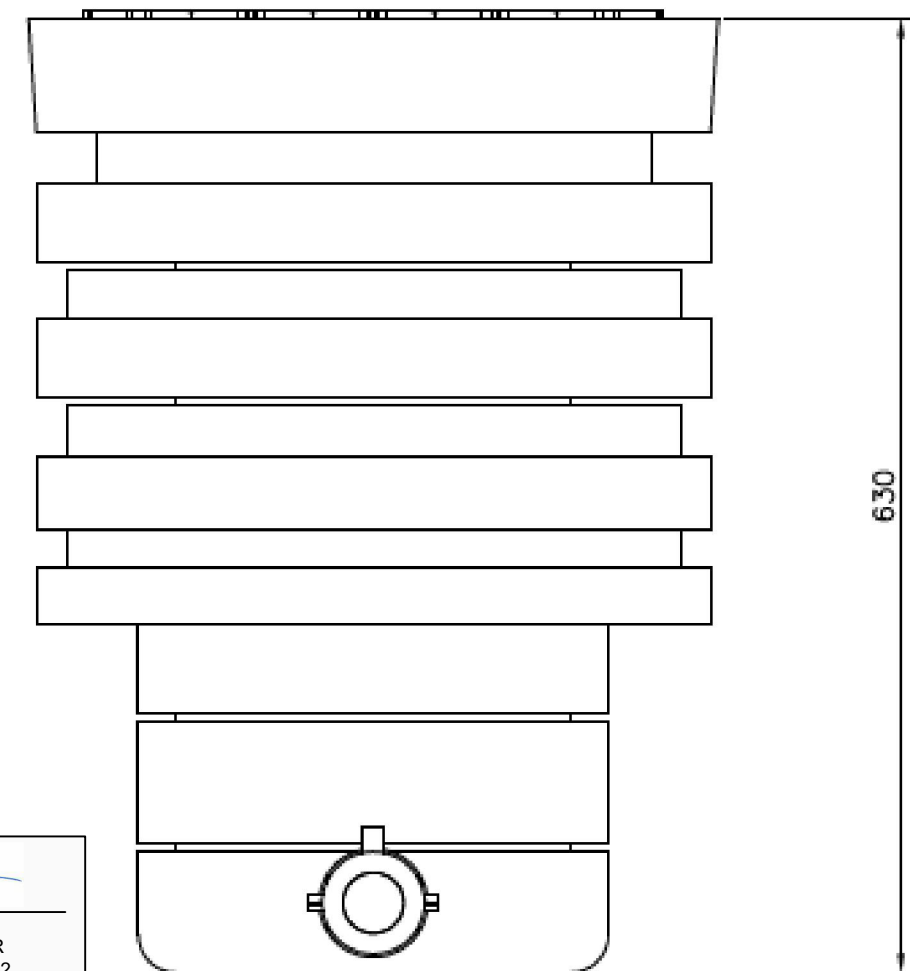
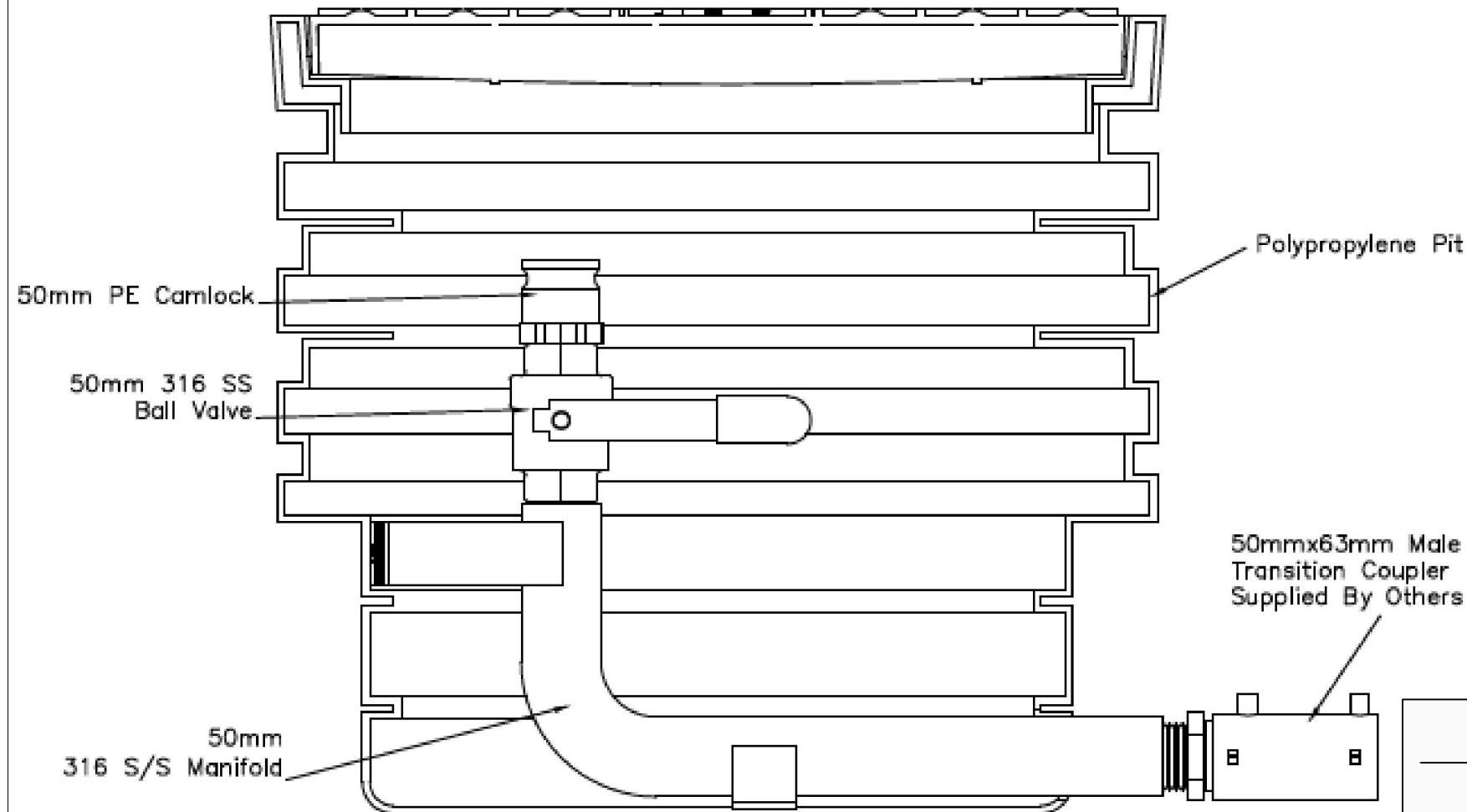
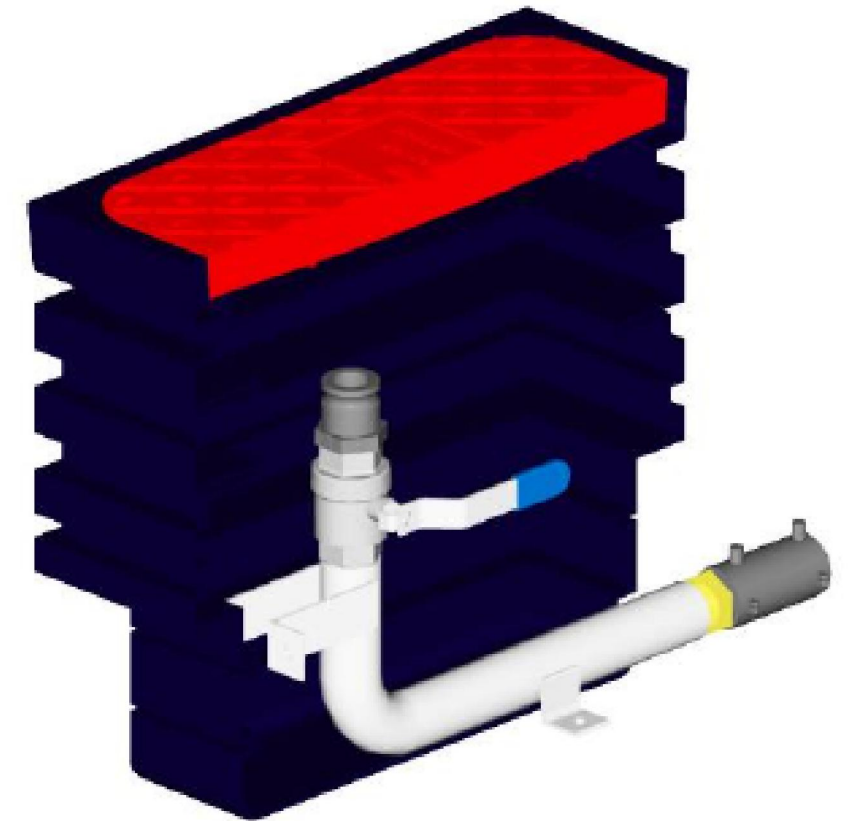
Each boundary kit supplied with
300mm length DN40 PE100 PN16 SDR11 stubs
each end E/F welded and complete unit pressure
tested to 16 Bar by Ecoflow



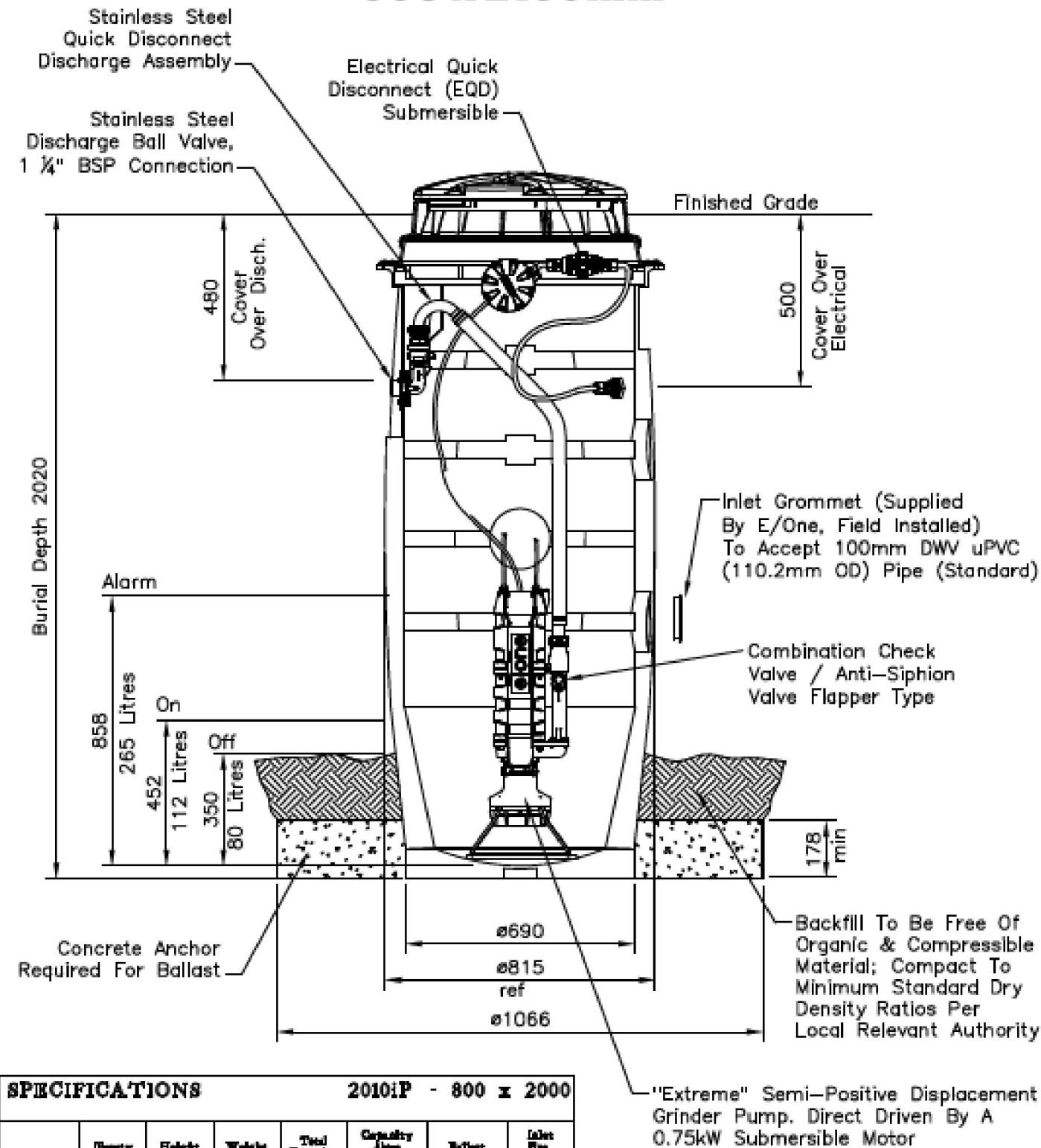
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Lid Material Typically Polypropylene. Also Available in Reinforced Concrete or Galvanised Steel



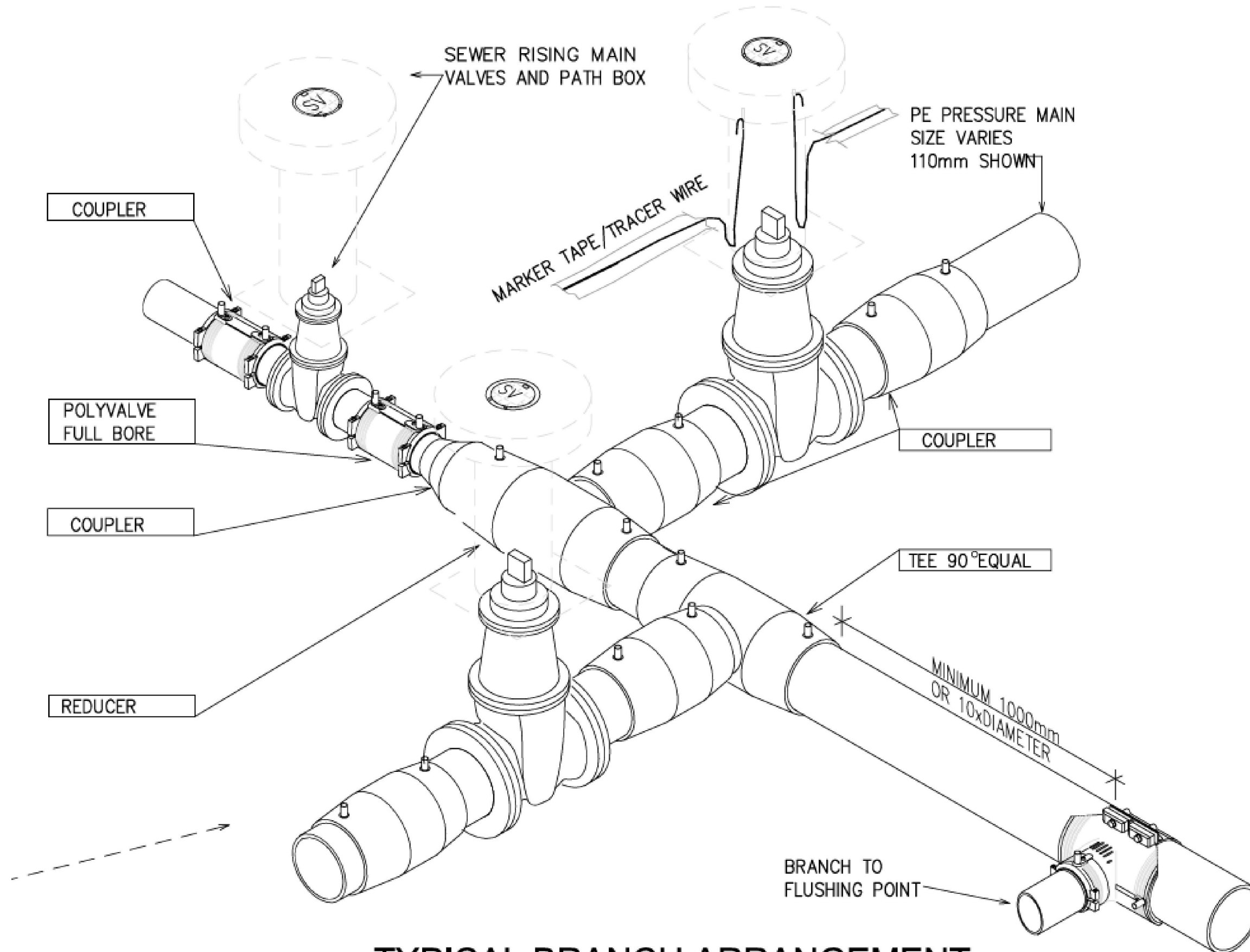
MODEL 2010iP 800 x 2100mm



SPECIFICATIONS								2010iP - 800 x 2000							
BSM	Diameter (mm)	Height (mm)	Weight (kg)	Total Capacity (l)	Capacity Above Alarm (l)	Refill (m3)	Inlet Pipe Size (mm)	PUMP	Pump Inlet	Pump Outlet	Weight (kg)	Maximal Pump Rate @ 10m TWD (l/s)	Maximal Pump Rate @ 20m TWD (l/s)	Maximal Pump Rate @ 40m TWD (l/s)	Discharge Size (mm)
	800	2100	74	720	455	SEE DWG	100		Simplex	330 x 800	47	25	25	27	32

ELECTRICAL	Voltage (VAC)	Phase	Cycle (Hz)	Supply Cable (m)	Alarm Panel
	240	Single	50	As Specified	Single (1)

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TYPICAL BRANCH ARRANGEMENT

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C		
B		
A	1ST ISSUE	26-06-20 KH GMcG
REV.	REVISION DETAILS	DRAWN APP.

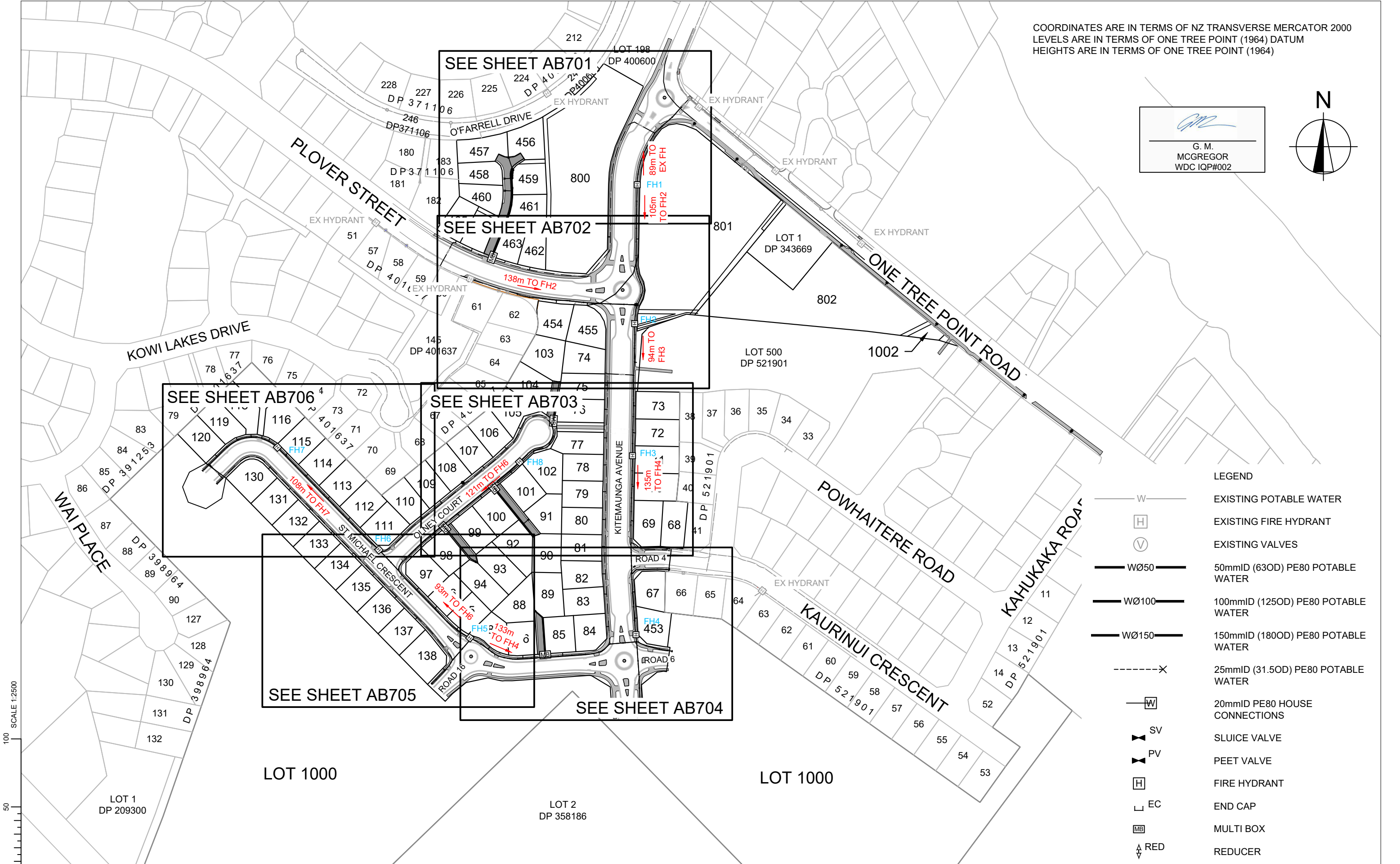
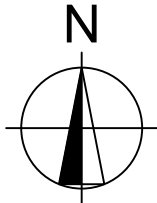
PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE
TYPICAL BRANCH ARRANGEMENT DETAIL

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE NTS @ A3	STATUS AS BUILTS	
DWG NUMBER AB679		REVISION A	

COORDINATES ARE IN TERMS OF NZ TRANSVERSE MERCATOR 2000
LEVELS ARE IN TERMS OF ONE TREE POINT (1964) DATUM
HEIGHTS ARE IN TERMS OF ONE TREE POINT (1964)

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- LEGEND
- W ——— EXISTING POTABLE WATER
 - [H] EXISTING FIRE HYDRANT
 - [V] EXISTING VALVES
 - WØ50 50mmID (63OD) PE80 POTABLE WATER
 - WØ100 100mmID (125OD) PE80 POTABLE WATER
 - WØ150 150mmID (180OD) PE80 POTABLE WATER
 - X 25mmID (31.5OD) PE80 POTABLE WATER
 - [W] 20mmID PE80 HOUSE CONNECTIONS
 - SV SLUICE VALVE
 - PV PEET VALVE
 - [H] FIRE HYDRANT
 - EC END CAP
 - [MB] MULTI BOX
 - RED REDUCER

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B	AS BUILT REVISED FOR WDC	26-06-2020 KAH GM
A	1ST ISSUE	19-06-2020 KAH GM
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS

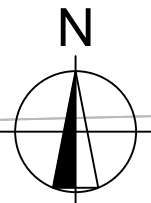
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

POTABLE WATER PLAN - OVERVIEW

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:2500 @ A3	STATUS AS BUILTS	
DWG NUMBER AB700	REVISION B		

COORDINATES ARE IN TERMS OF NZ TRANSVERSE MERCATOR 2000
LEVELS ARE IN TERMS OF ONE TREE POINT (1964) DATUM
HEIGHTS ARE IN TERMS OF ONE TREE POINT (1964)



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LOT 224
DP 400600

LOT 213
DP 400600

LOT 198
DP 400600

LOT 226
DP 371106

LOT 225
DP 400600

LOT 246
DP400600

O'FARRELL DRIVE

ONE TREE
POINT ROAD

200 x 150mm
TEE 1
CONNECTION
TO EXISTING
WATERMAIN

SV 1

EX FH

90° BEND 1

150X150mm
TEE 2 ONTO
150-50mm
REDUCER 1

801

456

457

LOT 457
CONN

LOT 456
CONN

LOT 183
DP 371106

458

LOT 458
CONN

459

LOT 459
CONN

LOT 182
DP 371106

460

LOT 460
CONN

LOT 461
CONN

461

SEPARATE SERVICE
CONNECTIONS FOR
EACH LOT

LOT 460
CONN

LOT 461
CONN

465

LOT 460
CONN

LOT 461
CONN

800

KITEMAUNGA AVENUE

LEGEND

- W EXISTING POTABLE WATER
- H EXISTING FIRE HYDRANT
- V EXISTING VALVES
- WØ50 50mmID (63OD) PE80 POTABLE WATER
- WØ100 100mmID (125OD) PE80 POTABLE WATER
- WØ150 150mmID (180OD) PE80 POTABLE WATER
- X 25mmID (31.5OD) PE80 POTABLE WATER
- W 20mmID PE80 HOUSE CONNECTIONS
- SV SLUICE VALVE
- PV PEET VALVE
- H FIRE HYDRANT
- EC END CAP
- MB MULTI BOX
- RED REDUCER

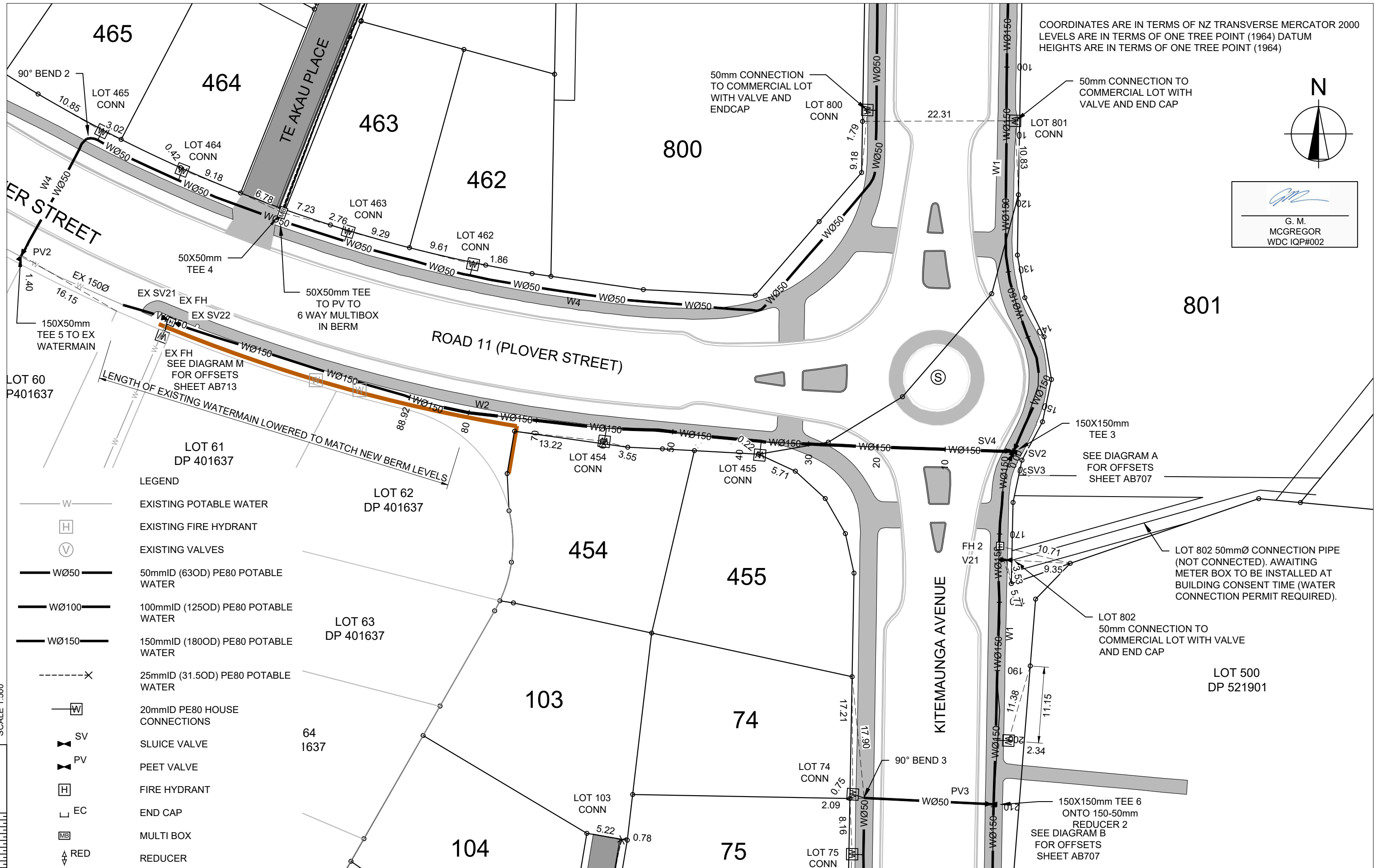


C		
B	AS BUILT REVISED FOR WDC	26-06-2020 KAH GM
A	1ST ISSUE	19-06-2020 KAH GM
REV.	REVISION DETAILS	DRAWN APP.

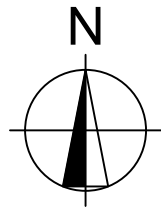
PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE
POTABLE WATER LAYOUT - SHEET 1

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB701			REVISION B



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LEVELS ARE IN TERMS OF ONE TREE POINT (1964) DATUM
HEIGHTS ARE IN TERMS OF ONE TREE POINT (1964)



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LEGEND

- W ——— EXISTING POTABLE WATER
- [H] ——— EXISTING FIRE HYDRANT
- (V) ——— EXISTING VALVES
- WØ50 ——— 50mmID (63OD) PE80 POTABLE WATER
- WØ100 ——— 100mmID (125OD) PE80 POTABLE WATER
- WØ150 ——— 150mmID (180OD) PE80 POTABLE WATER
- X 25mmID (31.5OD) PE80 POTABLE WATER
- [W] ——— 20mmID PE80 HOUSE CONNECTIONS
- SV ——— SLUICE VALVE
- PV ——— PEET VALVE
- [H] ——— FIRE HYDRANT
- EC ——— END CAP
- [MB] ——— MULTI BOX
- RED ——— REDUCER

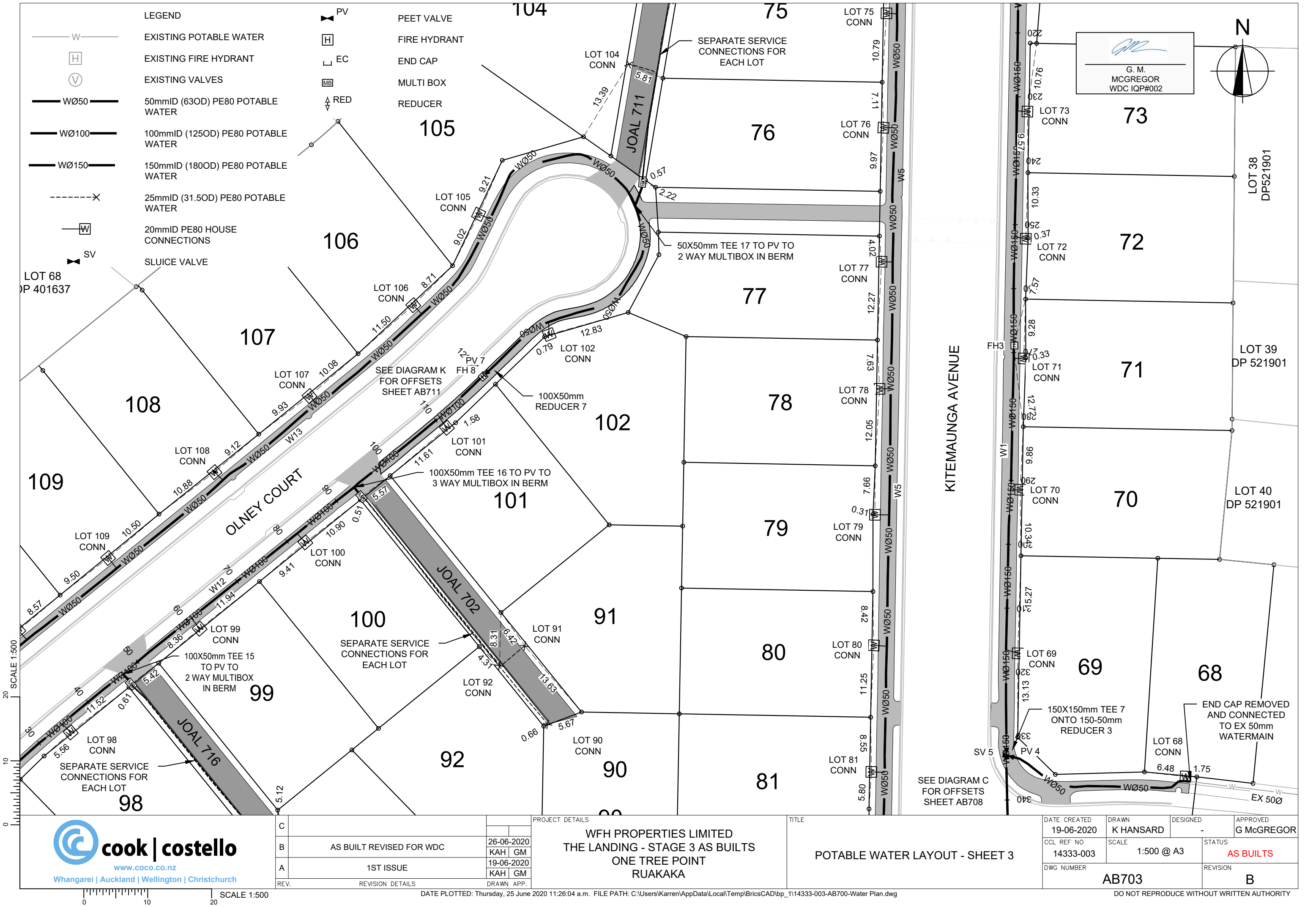


C		
B	AS BUILT REVISED FOR WDC	26-06-2020 KAH GM
A	1ST ISSUE	19-06-2020 KAH GM
REV.	REVISION DETAILS	DRAWN APP.

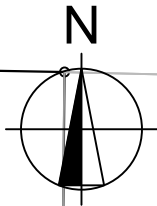
PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
POTABLE WATER LAYOUT - SHEET 2

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB702			REVISION B



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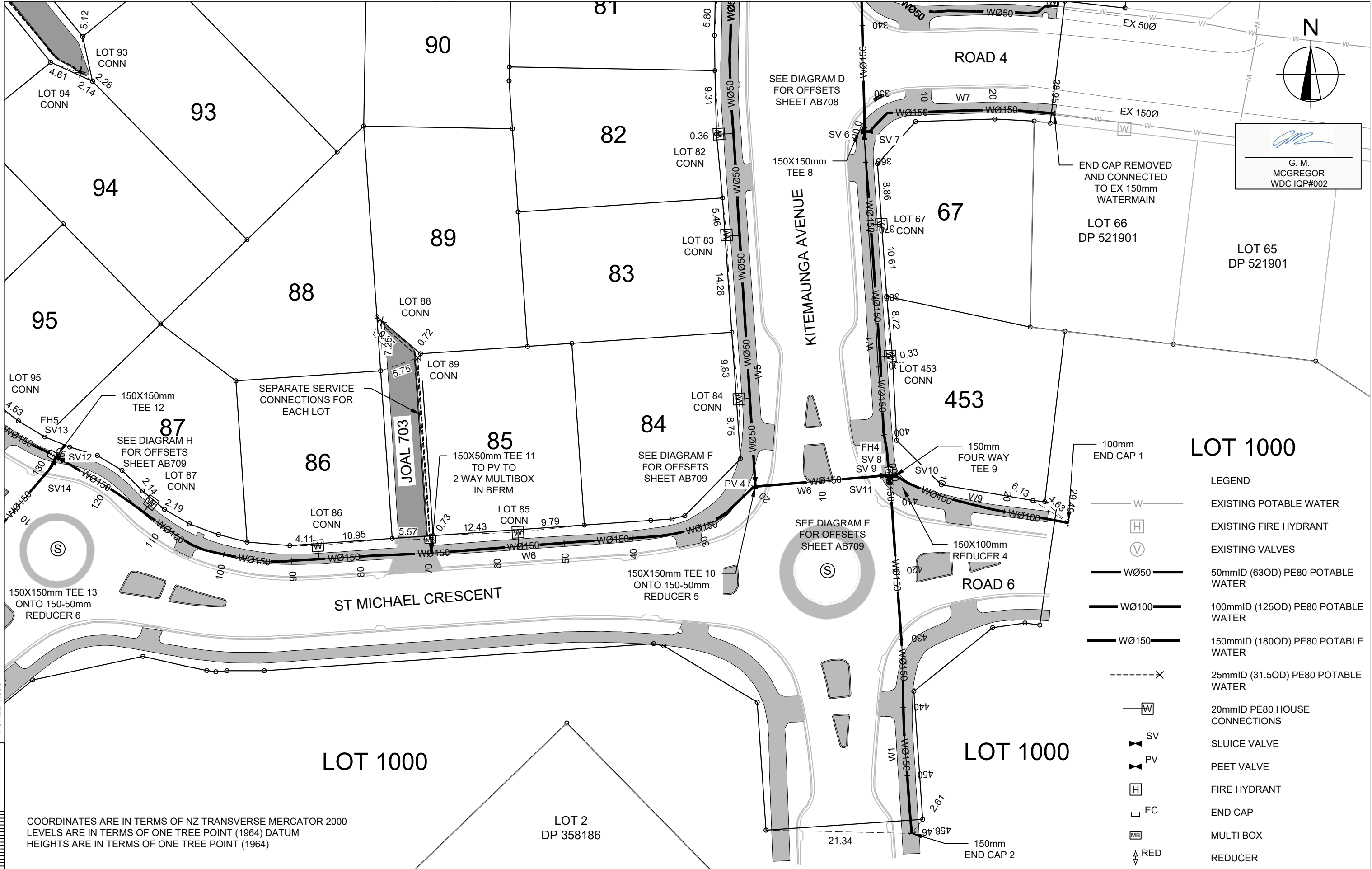


C		
B	AS BUILT REVISED FOR WDC	26-06-2020 KAH GM
A	1ST ISSUE	19-06-2020 KAH GM
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
POTABLE WATER LAYOUT - SHEET 3

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB703			REVISION B



LOT 1000

- LEGEND
- EXISTING POTABLE WATER
 - EXISTING FIRE HYDRANT
 - EXISTING VALVES
 - 50mmID (63OD) PE80 POTABLE WATER
 - 100mmID (125OD) PE80 POTABLE WATER
 - 150mmID (180OD) PE80 POTABLE WATER
 - 25mmID (31.5OD) PE80 POTABLE WATER
 - 20mmID PE80 HOUSE CONNECTIONS
 - SLUICE VALVE
 - PEET VALVE
 - FIRE HYDRANT
 - END CAP
 - MULTI BOX
 - REDUCER

LOT 1000

LOT 1000

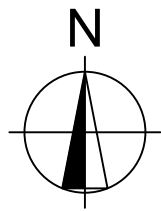


C		
B	AS BUILT REVISED FOR WDC	26-06-2020 KAH GM
A	1ST ISSUE	19-06-2020 KAH GM
REV.	REVISION DETAILS	DRAWN APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
POTABLE WATER LAYOUT - SHEET 4

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB704			REVISION B



133

134

135

136

LOT 1000

137

138

OLNEY COURT

ST MICHAEL CRESCENT

98

97

96

95

94

92

93

88

86

87

LOT 133
CONN

LOT 134
CONN

LOT 135
CONN

LOT 136
CONN

LOT 137
CONN

LOT 138
CONN

LOT 98
CONN

LOT 93
CONN

LOT 94
CONN

LOT 96
CONN

LOT 95
CONN

LOT 87
CONN

LOT 86
CONN

SEE DIAGRAM J
FOR OFFSETS
SHEET AB711

SEE DIAGRAM I
FOR OFFSETS
SHEET AB710

SEPARATE SERVICE
CONNECTIONS FOR
EACH LOT

SEPARATE SERVICE
CONNECTIONS FOR
EACH LOT

SEE DIAGRAM G
FOR OFFSETS
SHEET AB709

SEE DIAGRAM H
FOR OFFSETS
SHEET AB710

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COORDINATES ARE IN TERMS OF NZ TRANSVERSE MERCATOR 2000
LEVELS ARE IN TERMS OF ONE TREE POINT (1964) DATUM
HEIGHTS ARE IN TERMS OF ONE TREE POINT (1964)

LEGEND

- W EXISTING POTABLE WATER
- H EXISTING FIRE HYDRANT
- V EXISTING VALVES
- WØ50 50mmID (63OD) PE80 POTABLE WATER
- WØ100 100mmID (125OD) PE80 POTABLE WATER
- WØ150 150mmID (180OD) PE80 POTABLE WATER
- X 25mmID (31.5OD) PE80 POTABLE WATER
- W 20mmID PE80 HOUSE CONNECTIONS
- SV SLUICE VALVE
- PV PEET VALVE
- H FIRE HYDRANT
- EC END CAP
- MB MULTI BOX
- RED REDUCER

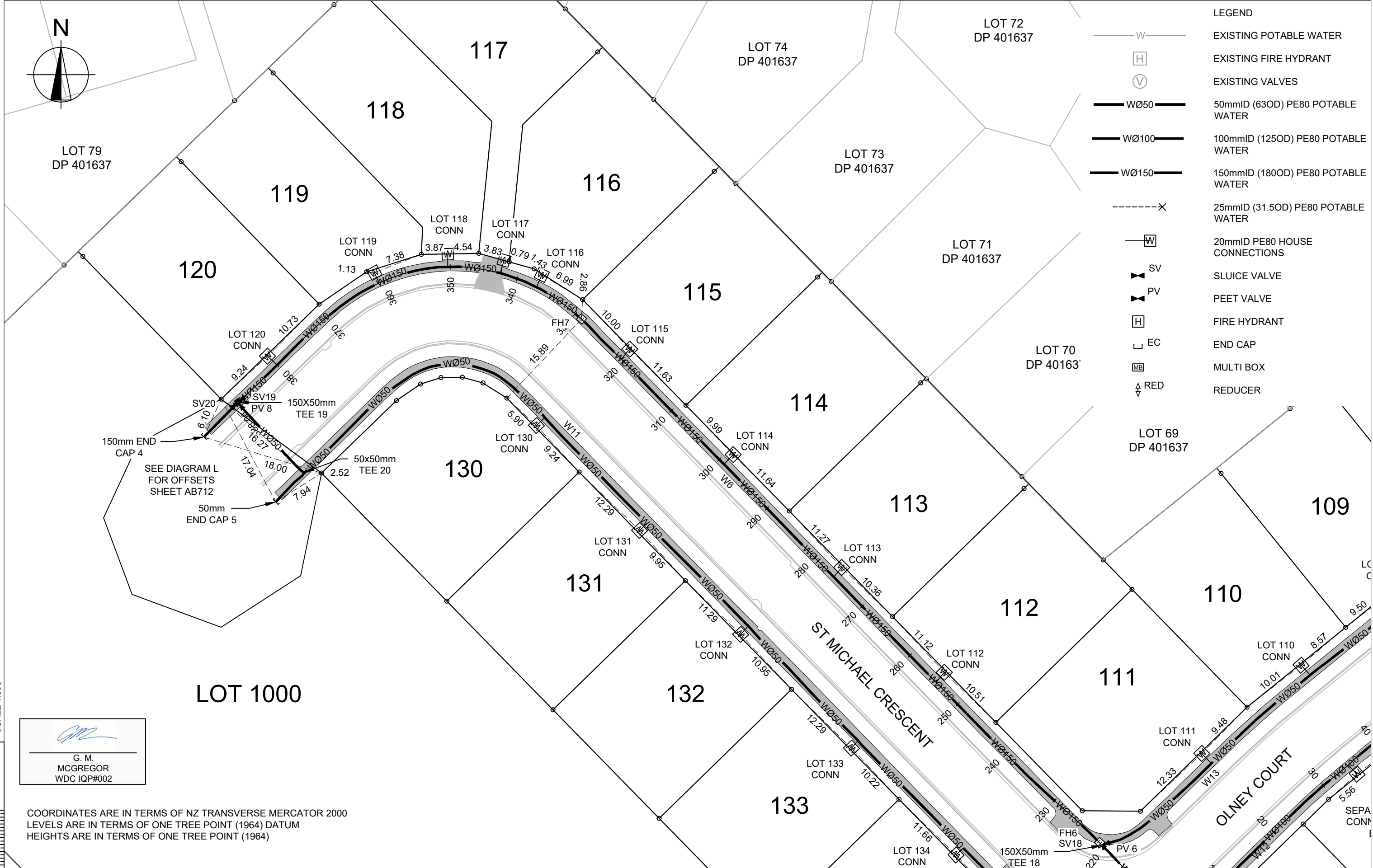


C			
B	AS BUILT REVISED FOR WDC	26-06-2020	KAH GM
A	1ST ISSUE	19-06-2020	KAH GM
REV.	REVISION DETAILS	DRAWN APP.	

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
POTABLE WATER LAYOUT - SHEET 5

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB705			REVISION B



LEGEND	
	EXISTING POTABLE WATER
	EXISTING FIRE HYDRANT
	EXISTING VALVES
	50mmID (63OD) PE80 POTABLE WATER
	100mmID (125OD) PE80 POTABLE WATER
	150mmID (180OD) PE80 POTABLE WATER
	25mmID (31.5OD) PE80 POTABLE WATER
	20mmID PE80 HOUSE CONNECTIONS
	SLUICE VALVE
	PEET VALVE
	FIRE HYDRANT
	END CAP
	MULTI BOX
	REDUCER

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COORDINATES ARE IN TERMS OF NZ TRANSVERSE MERCATOR 2000
LEVELS ARE IN TERMS OF ONE TREE POINT (1964) DATUM
HEIGHTS ARE IN TERMS OF ONE TREE POINT (1964)

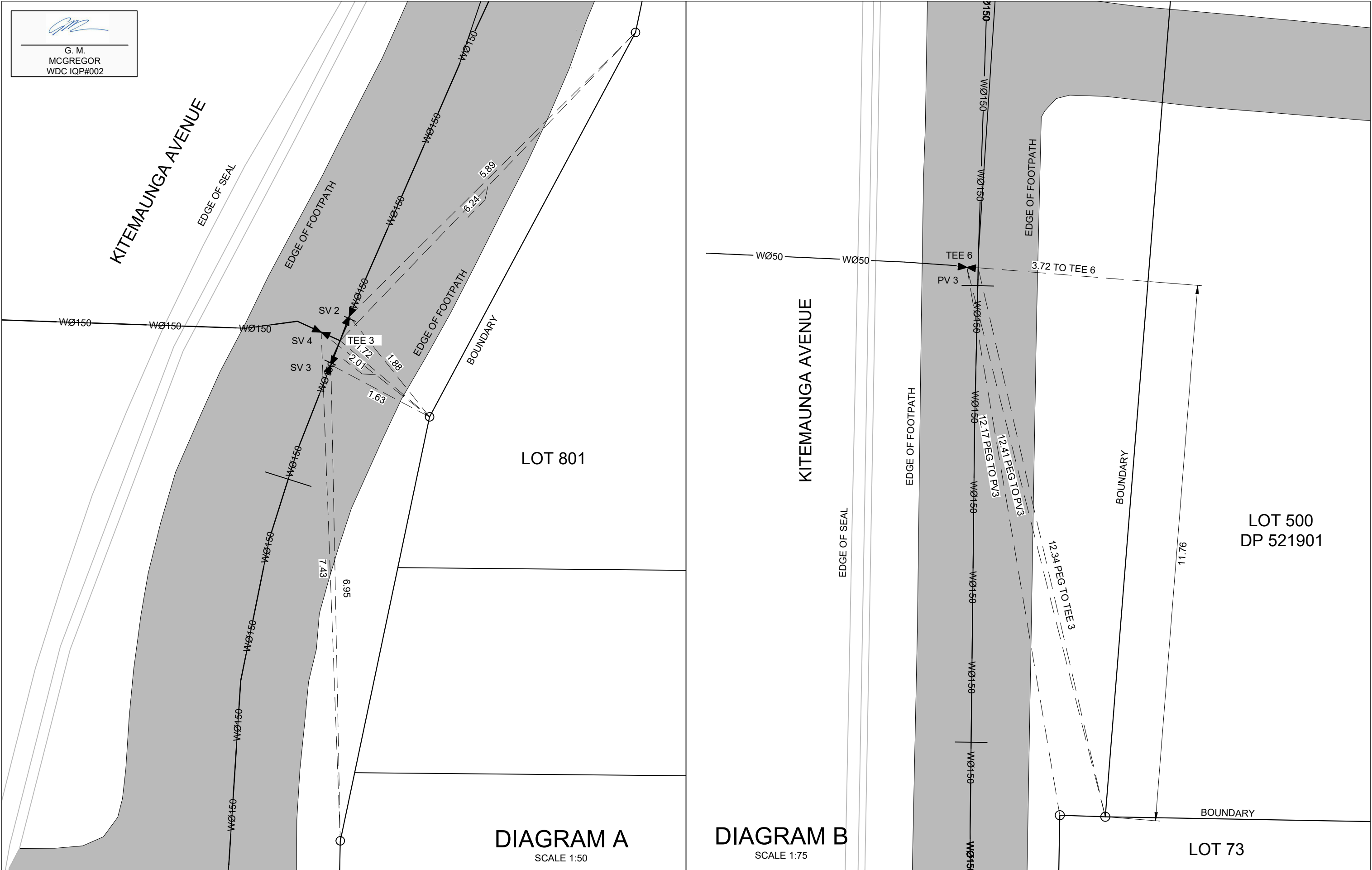



REV.	REVISION DETAILS	DATE	DRAWN	APP.
C				
B	AS BUILT REVISED FOR WDC	26-06-2020	KAH	GM
A	1ST ISSUE	19-06-2020	KAH	GM

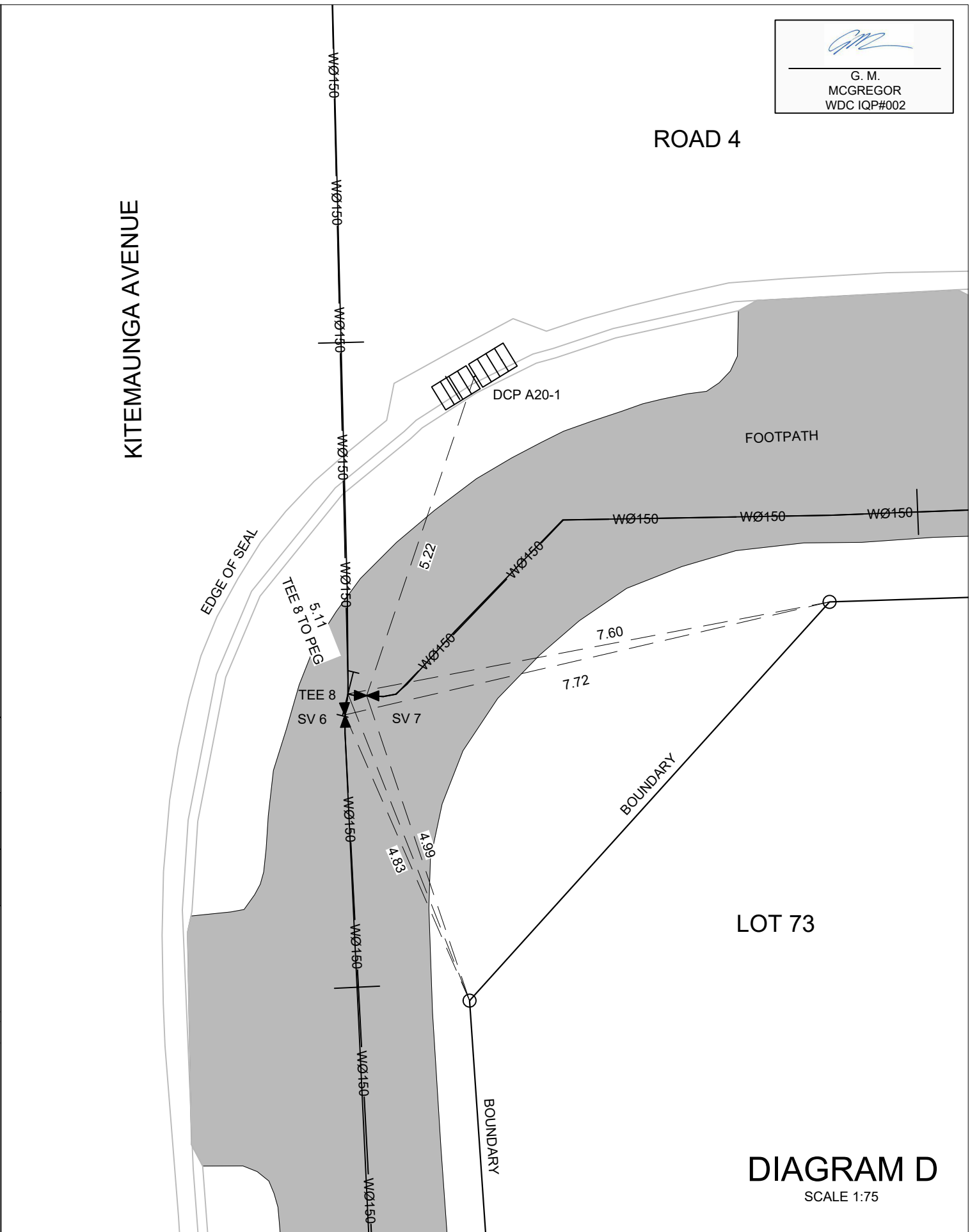
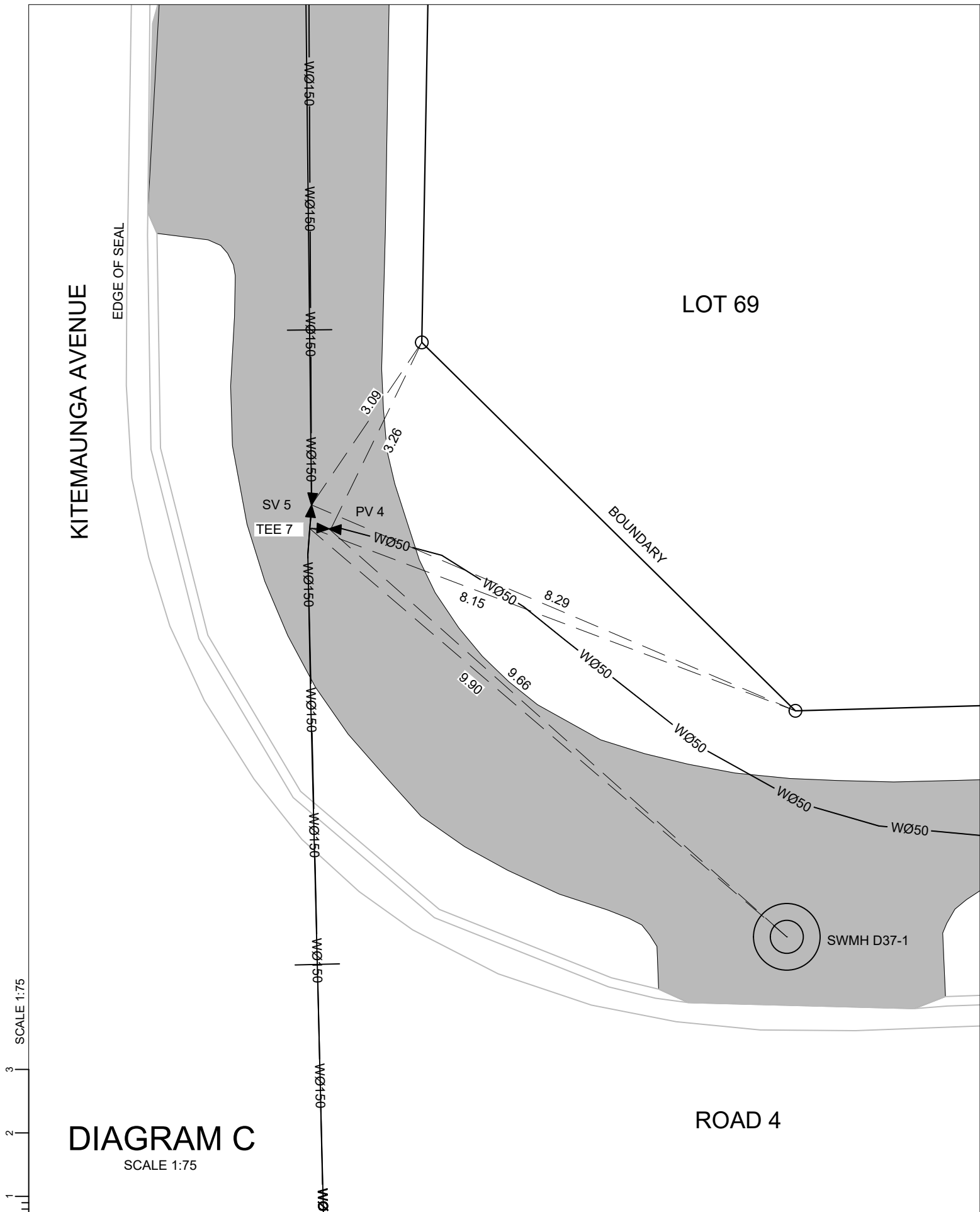
PROJECT DETAILS	
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA	

TITLE	
POTABLE WATER LAYOUT - SHEET 6	

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:500 @ A3		STATUS AS BUILTS
DWG NUMBER AB706			REVISION B



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	B	AS BUILT REVISED FOR WDC	26-06-2020			CCL REF NO 14333-003	SCALE AS SHOWN @ A3	STATUS AS BUILTS		
	A	1ST ISSUE	19-06-2020			DWG NUMBER AB707	REVISION B			
	REV.	REVISION DETAILS	DRAWN APP.							



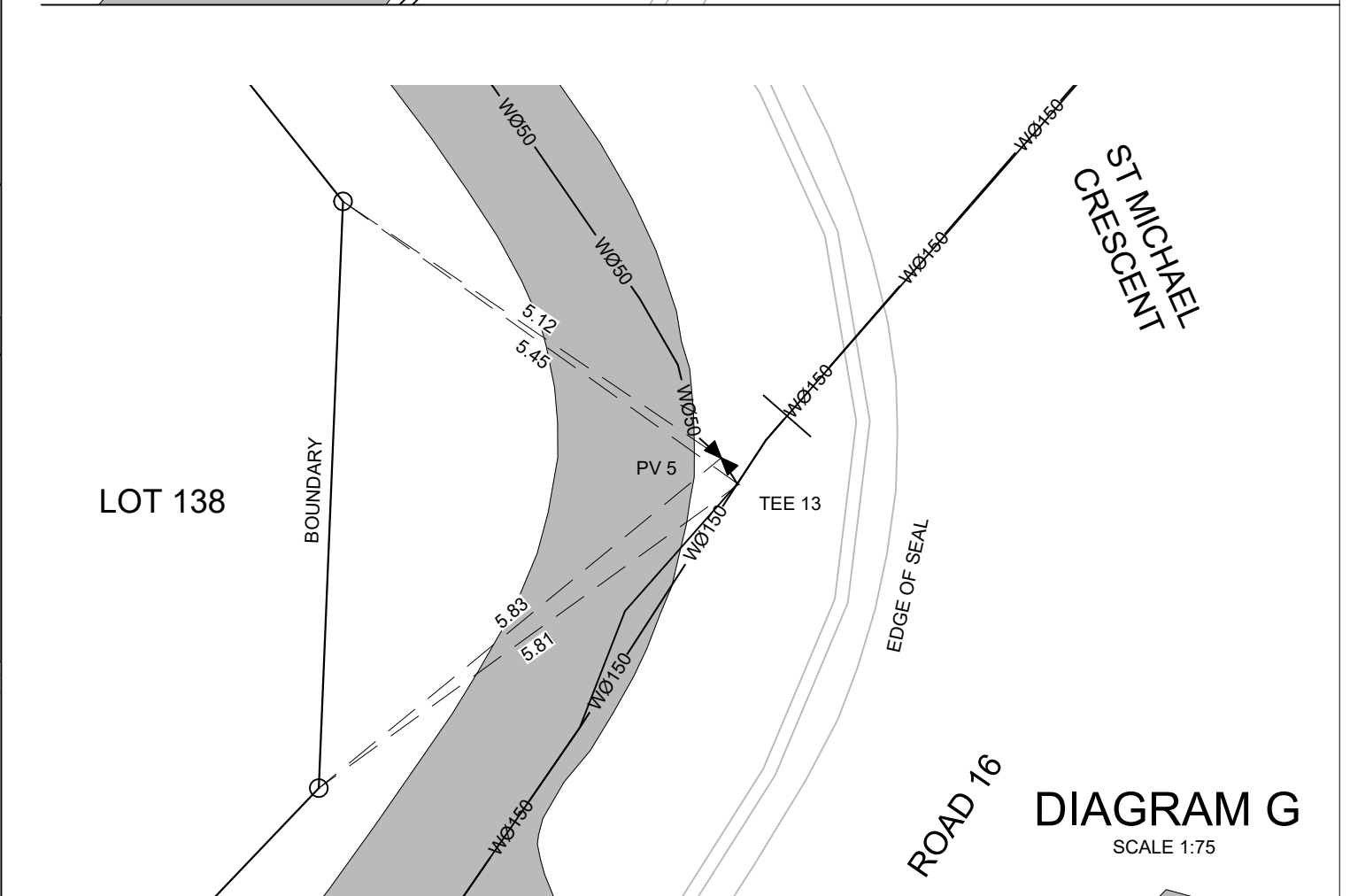
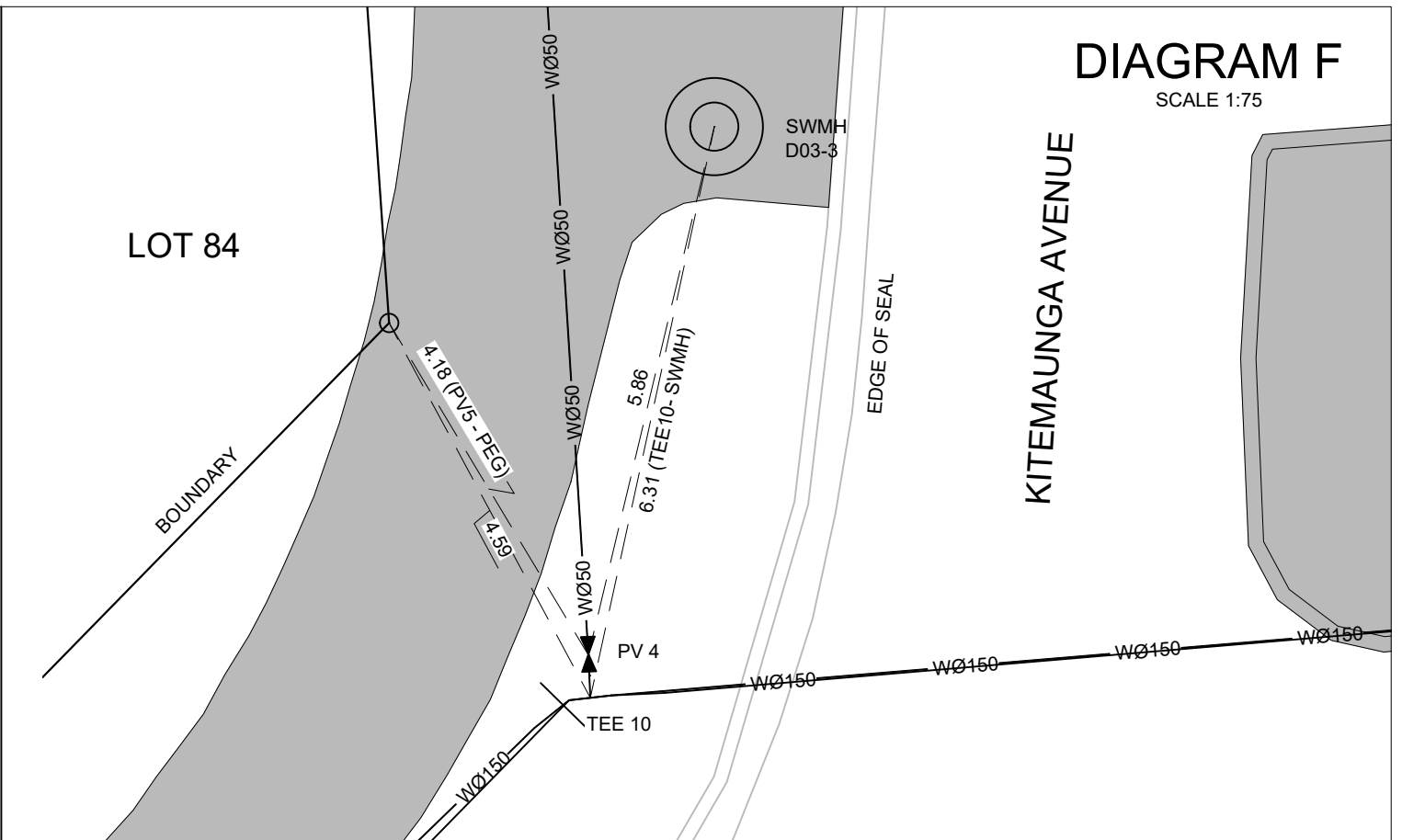
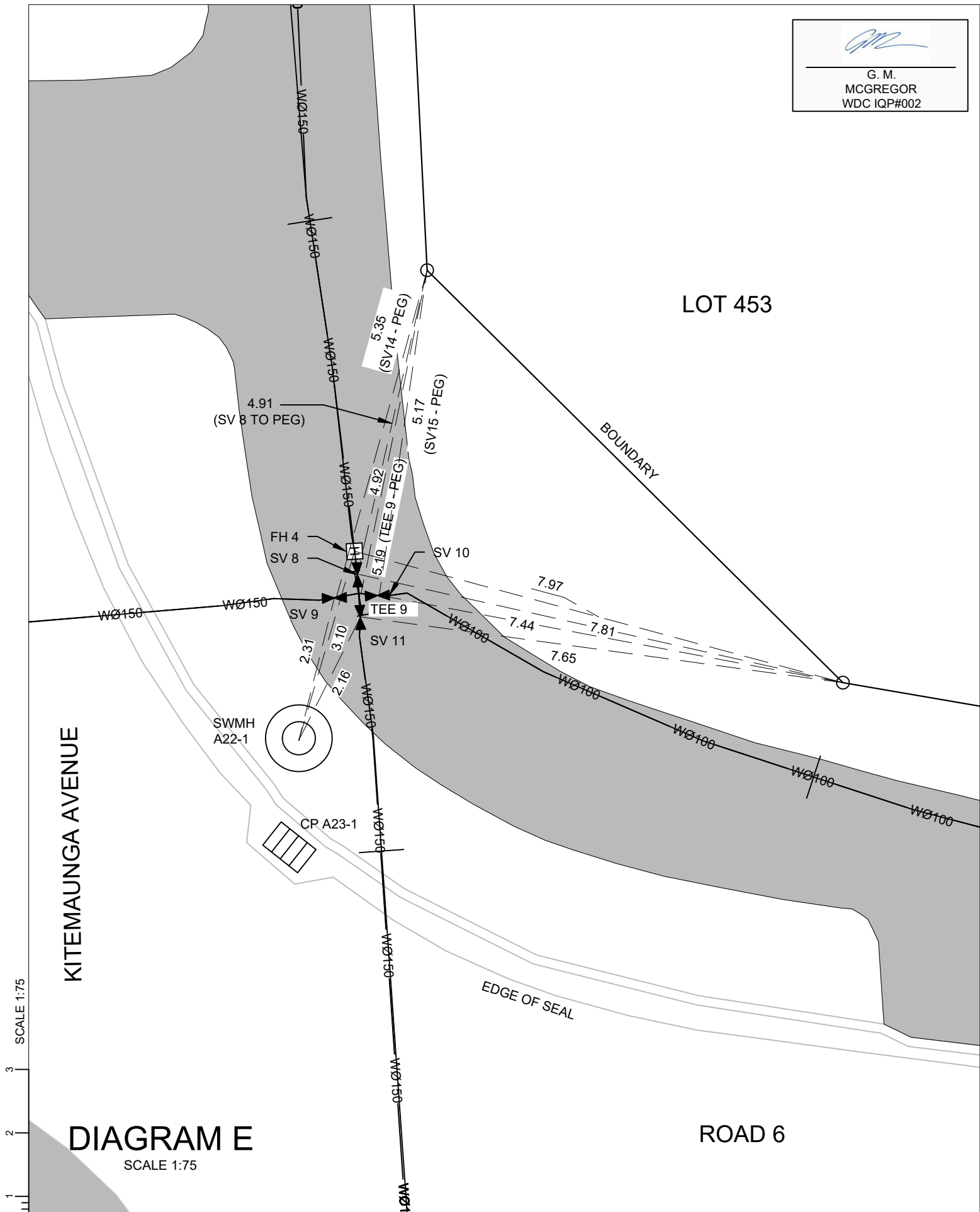
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C			
B	AS BUILT REVISED FOR WDC	26-06-2020	KAH GM
A	1ST ISSUE	19-06-2020	KAH GM
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
POTABLE WATER LAYOUT - SHEET 8

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:75 @ A3		STATUS AS BUILTS
DWG NUMBER AB708			REVISION B



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DIAGRAM F

SCALE 1:75

KITEMAUNGA AVENUE

LOT 84

BOUNDARY

SWMH
D03-3

EDGE OF SEAL

LOT 453

BOUNDARY

(SV 8 TO PEG)

FH 4
SV 8

SV 9

SWMH
A22-1

CP A23-1

EDGE OF SEAL

ROAD 6

LOT 138

BOUNDARY

PV 5

TEE 13

EDGE OF SEAL

ST MICHAEL
CRESCENT

DIAGRAM G

SCALE 1:75

ROAD 16

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA


TITLE

POTABLE WATER LAYOUT - SHEET 9

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:75 @ A3		STATUS AS BUILTS
DWG NUMBER AB709			REVISION B

DIAGRAM H

SCALE 1:75



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LOT 95

LOT 87

BOUNDARY

BOUNDARY

SWMH A17-7

CP A32-1

ST MICHAEL CRESCENT

DIAGRAM I

SCALE 1:75

OLNEY COURT

SW CP D28-1

LOT 97

BOUNDARY

ST MICHAEL CRESCENT

EDGE OF SEAL



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C			
B	AS BUILT REVISED FOR WDC	26-06-2020	KAH GM
A	1ST ISSUE	19-06-2020	KAH GM
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

POTABLE WATER LAYOUT - SHEET 10

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:75 @ A3		STATUS AS BUILTS
DWG NUMBER AB710		REVISION B	

DIAGRAM J

SCALE 1:75



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LOT 111

BOUNDARY

FH 6
SV 18
TEE 18

PV 6

EDGE OF SEAL

OLNEY COURT

ST MICHAEL CRESCENT

OLNEY COURT

EDGE OF SEAL

LOT 102

BOUNDARY

LOT 101

DIAGRAM K

SCALE 1:75

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C			
B	AS BUILT REVISED FOR WDC	26-06-2020	KAH GM
A	1ST ISSUE	19-06-2020	KAH GM
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

POTABLE WATER LAYOUT - SHEET 11

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:75 @ A3		STATUS AS BUILTS
DWG NUMBER AB711			REVISION B

DIAGRAM L

SCALE 1:75

LOT 120

BOUNDARY

SWCP D34-1

OLNEY COURT

LOT 1000

BOUNDARY

SWDCP D33-1

SCALE 1:75
3
2
1
0



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Whangarei | Auckland | Wellington | Christchurch

C			
B	AS BUILT REVISED FOR WDC	26-06-2020	KAH GM
A	1ST ISSUE	19-06-2020	KAH GM
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS

WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

TITLE

POTABLE WATER LAYOUT - SHEET 12

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:75 @ A3	STATUS AS BUILTS	
DWG NUMBER AB712	REVISION B		



G. M.
MCGREGOR
WDC IQP#002

DIAGRAM M

SCALE 1:75

NOTE:
EXISTING FIRE HYDRANT, VALVES AND LOT
CONNECTION HAVE BEEN LOWERED.

ROAD 11 (PLOVER STREET)

EDGE OF SEAL

FOOTPATH

LOT 145
DP 401637

LOT 61
DP 401687

NEW CONN
LOT 145
DP 401637




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C			
B	AS BUILT REVISED FOR WDC	26-06-2020	KAH GM
A	1ST ISSUE	19-06-2020	KAH GM
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

TITLE
POTABLE WATER LAYOUT - SHEET 13

DATE CREATED 19-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:75 @ A3	STATUS AS BUILTS	
DWG NUMBER AB713	REVISION B		



G. M.
MCGREGOR
WDC IQP#002

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SW = STORMWATER
SS = SANITARY SEWER



G. M.
MCGREGOR
WDC IQP#002

RL-1

Invert Depth																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Horizontal 1:1000 Vertical 1:200
WATER LONGSECTION W1

RL1

Invert Depth	0.850	0.942	0.969	0.933	0.740	0.624	0.763	0.755	0.777	0.773	0.666	0.745	0.930	0.734	0.656	0.821	0.704
Water Invert	6.489	6.498	6.574	6.714	6.903	6.972	7.093	7.201	7.274	7.446	7.688	7.658	7.689	7.72	7.905	7.859	7.996
Design Surface	7.339	7.439	7.543	7.647	7.643	7.596	7.856	7.956	8.050	8.219	8.354	8.403	8.619	8.453	8.561	8.679	8.700
Chainages	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	458.463

Horizontal 1:1000 Vertical 1:200
WATER LONGSECTION W1

RL0

Invert Depth	0.661	1.118	1.097	0.547	0.536	0.595	0.712	0.744	0.750	0.500
Water Invert	6.24	5.847	5.858	6.5	6.686	6.699	6.671	6.729	6.826	7.131
Design Surface	6.901	6.966	6.955	7.047	7.221	7.294	7.384	7.473	7.576	7.631
Chainages	0	10	20	30	40	50	60	70	80	88.917

Horizontal 1:1000 Vertical 1:200
WATER LONGSECTION W2



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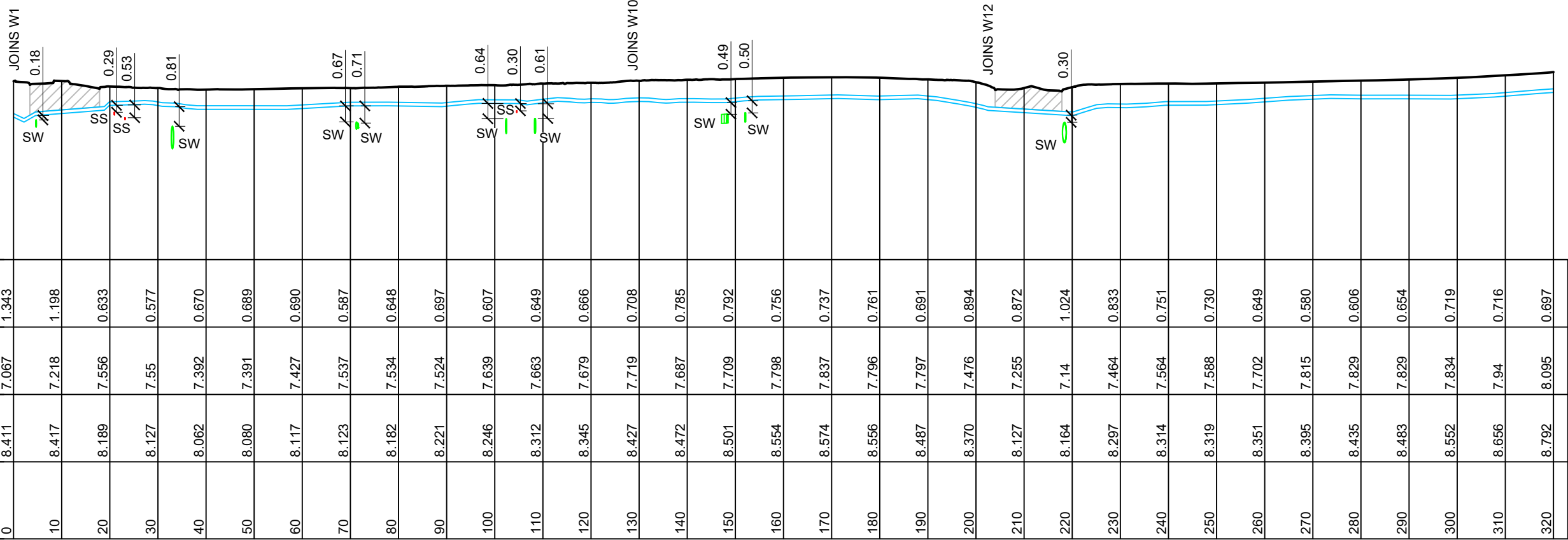
C			
B			
A	1ST ISSUE	26-06-20	KH GMcG
REV.	REVISION DETAILS	DRAWN	APP.

PROJECT DETAILS
WFH PROPERTIES LIMITED
THE LANDING - STAGE 3 AS BUILTS
ONE TREE POINT
RUAKAKA

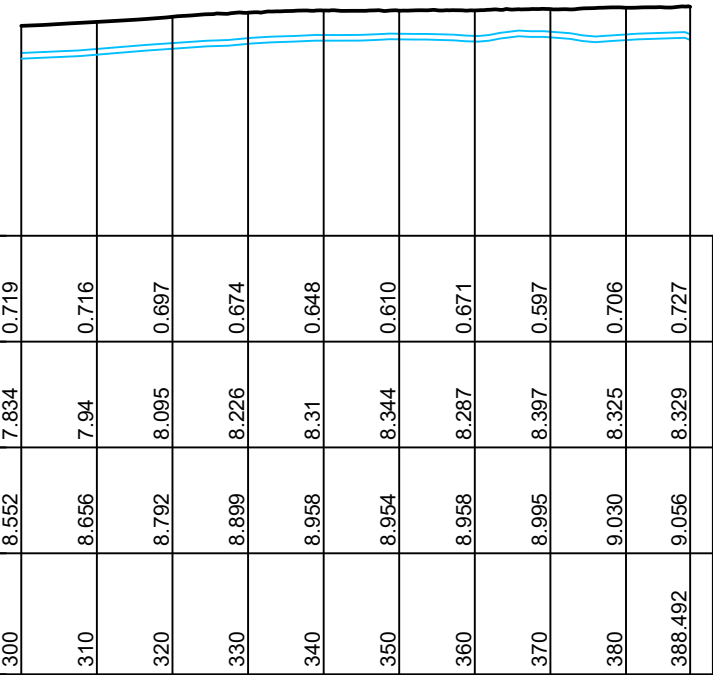
TITLE
POTABLE WATER LONGSECTIONS
LINES W1 & W2

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:1000H 1:200V @ A3		STATUS AS BUILTS
DWG NUMBER AB720			REVISION A

KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SW = STORMWATER
SS = SANITARY SEWER



Horizontal 1:1000 Vertical 1:200
WATER LONGSECTION W6



Horizontal 1:1000 Vertical 1:200
WATER LONGSECTION W6

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WDC IQP#002

10
8
6
4
2
0

SCALE 1:200

0 10 20 30 40 50

SCALE 1:1000



C			
B			
A	1ST ISSUE	26-06-20	KH GMcG
REV.	REVISION DETAILS	DRAWN APP.	

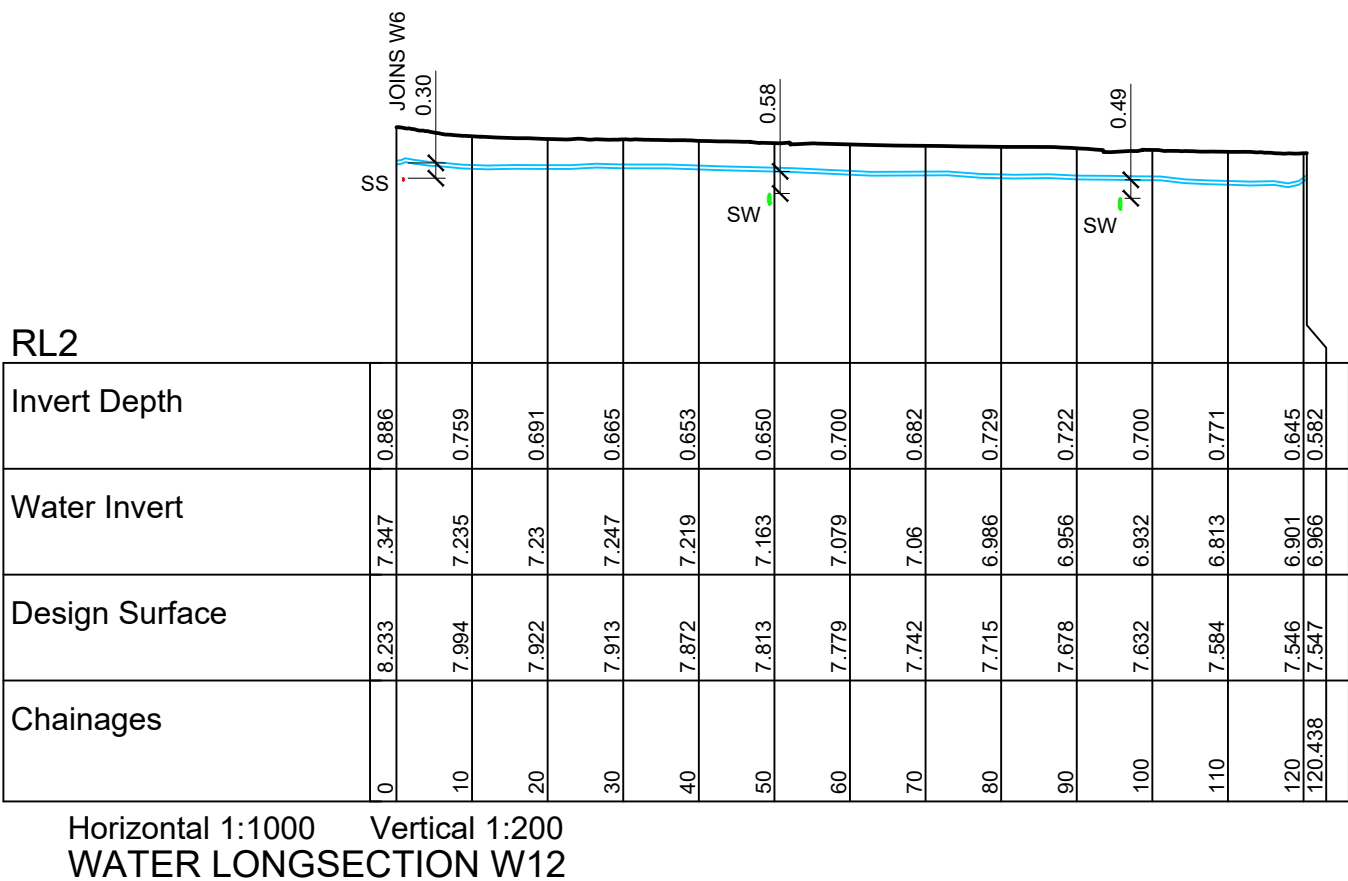
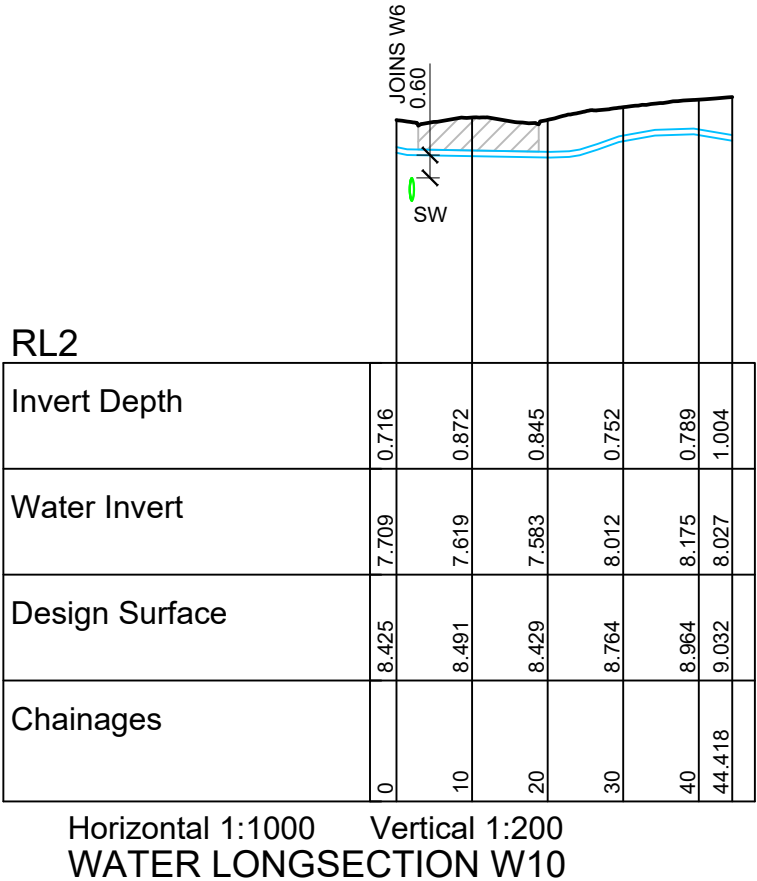
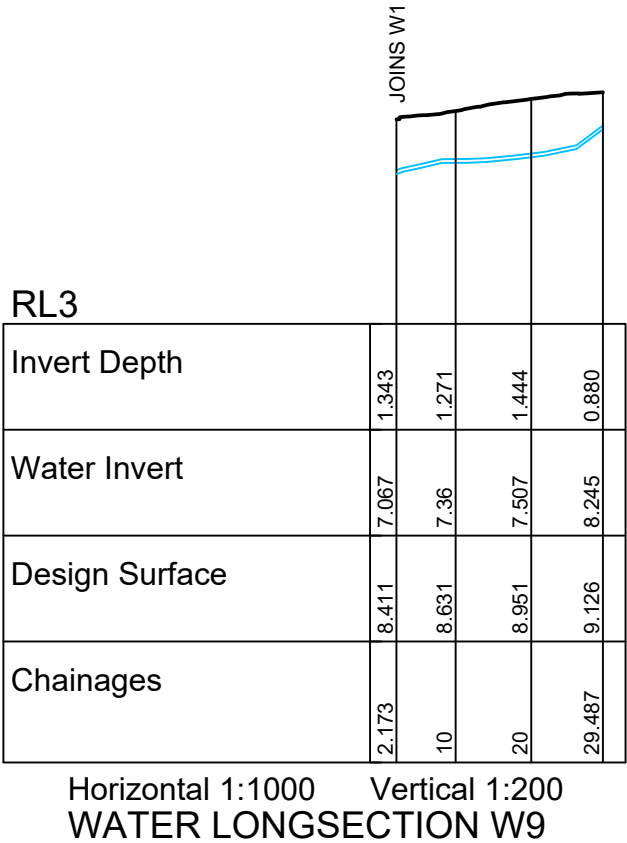
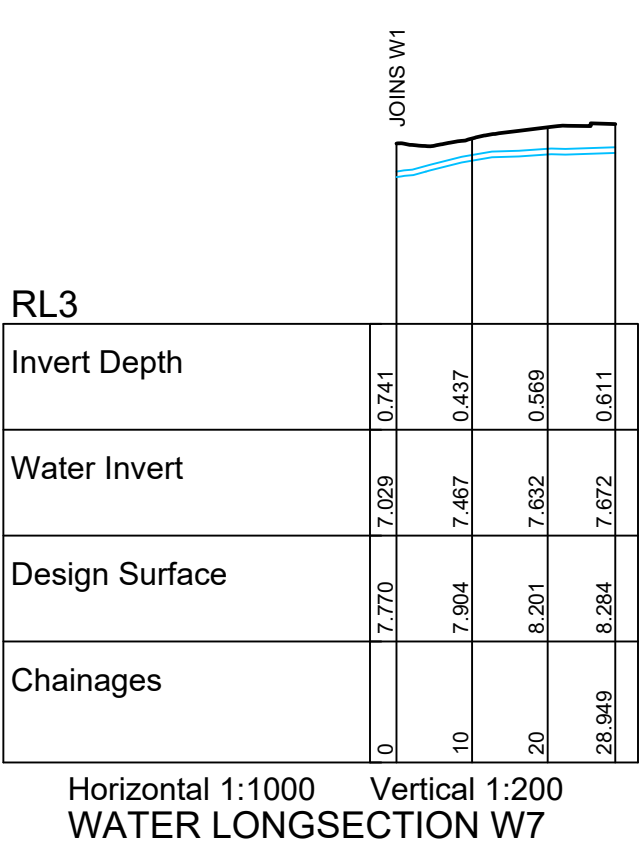
PROJECT DETAILS
WFH PROPERTIES LIMITED THE LANDING - STAGE 3 AS BUILTS ONE TREE POINT RUAKAKA

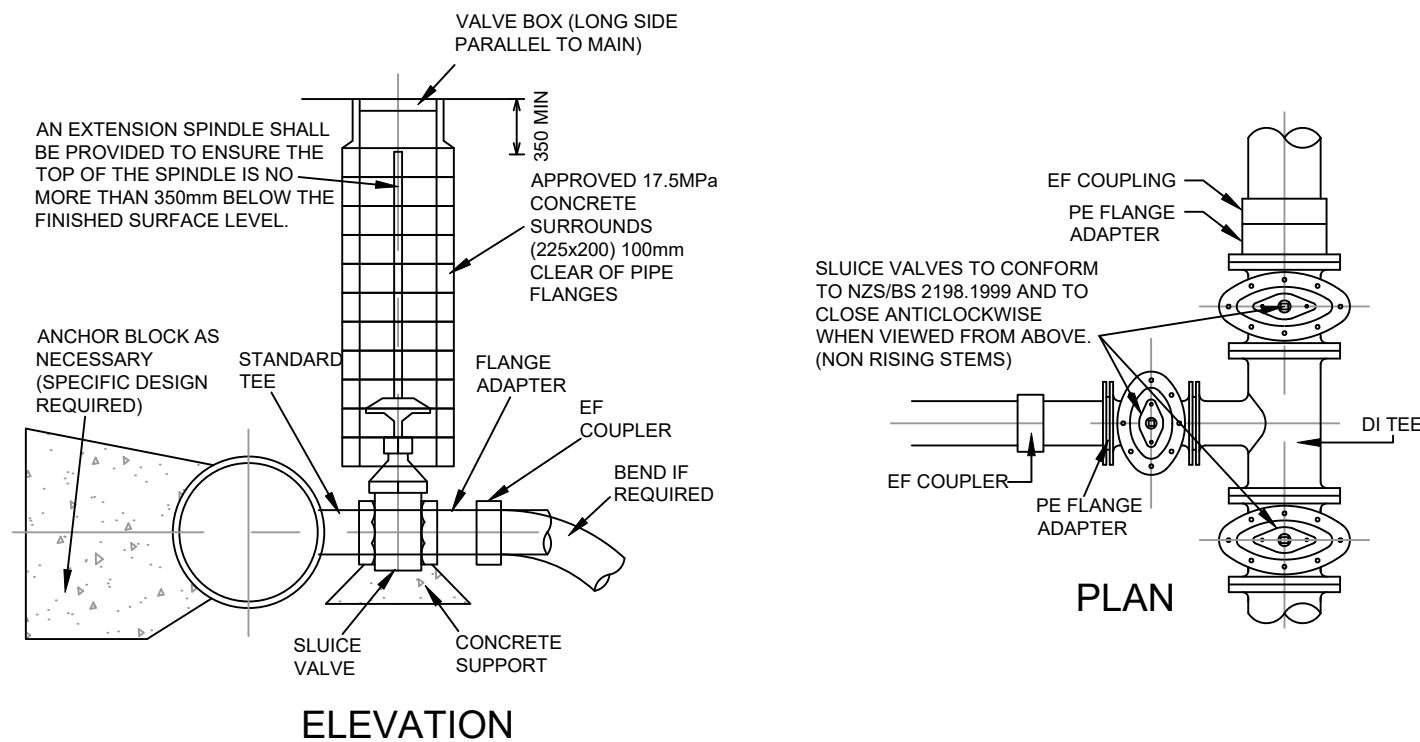
TITLE
POTABLE WATER LONGSECTIONS W7, W9, W10 & W12

DATE CREATED 26-06-2020	DRAWN K HANSARD	DESIGNED -	APPROVED G MCGREGOR
CCL REF NO 14333-003	SCALE 1:1000H 1:200V @ A3		STATUS AS BUILTS
DWG NUMBER AB722			REVISION A

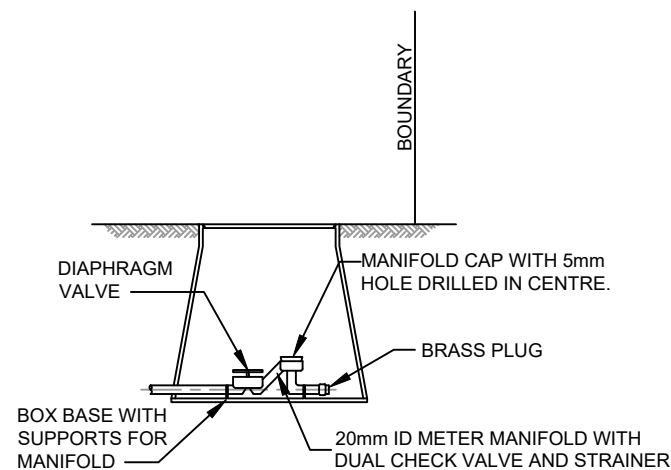
KEY:
EXSS = EXISTING SANITARY SEWER
EXSW = EXISTING STORMWATER
SW = STORMWATER
SS = SANITARY SEWER


G. M.
MCGREGOR
WDC IQP#002



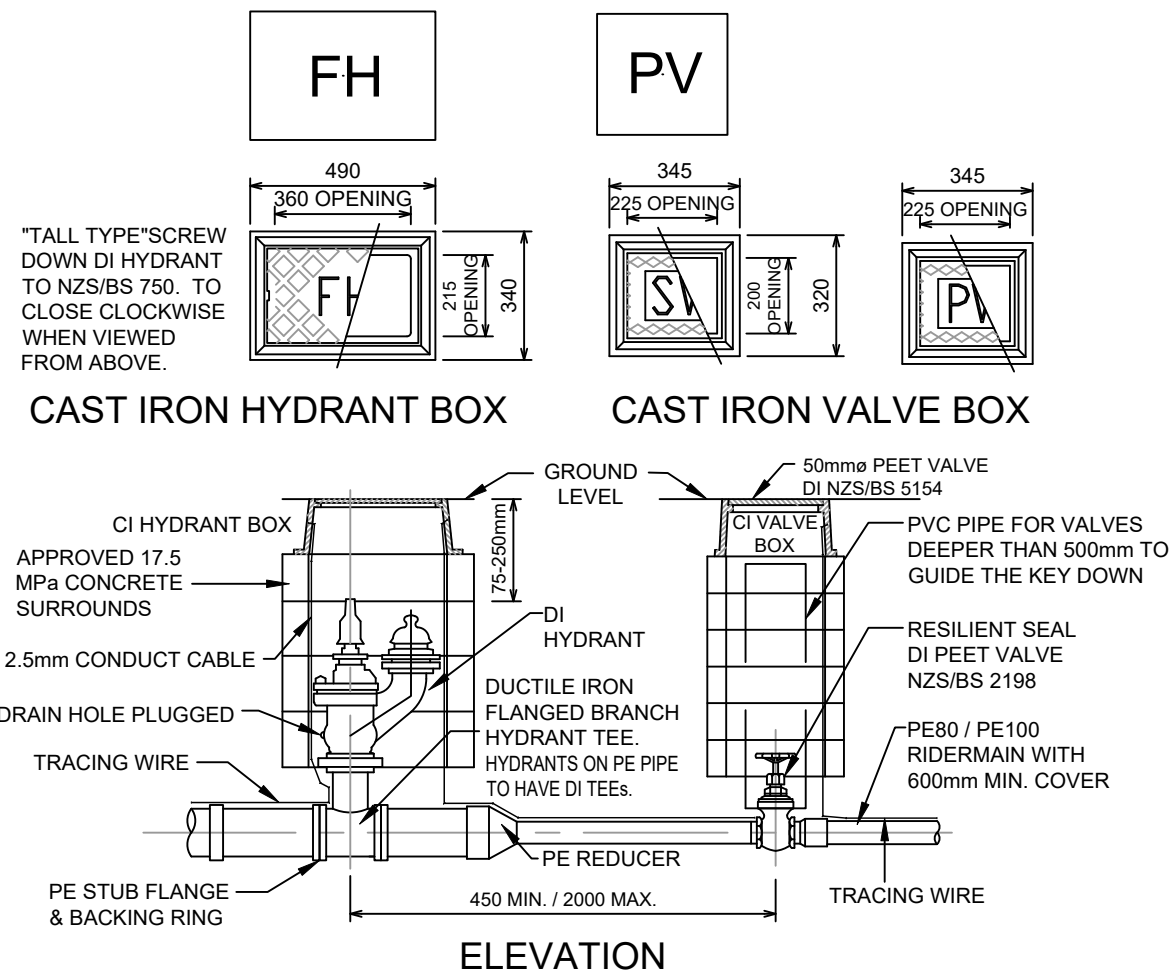


VALVE INSTALLATION DETAILS
SHEET 49 WDC EES 2010 - NOT TO SCALE



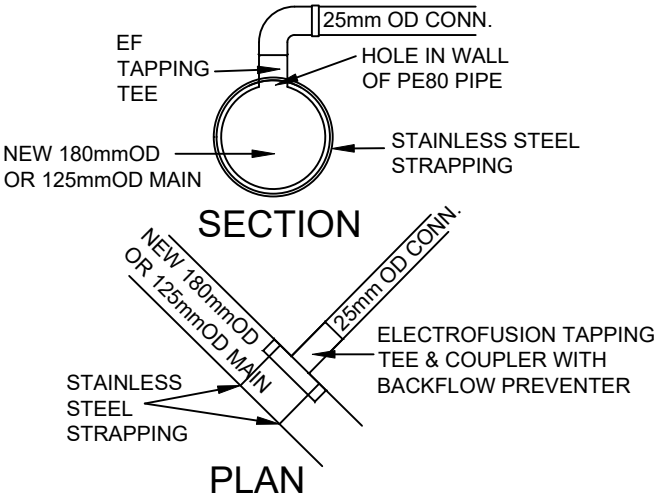
SINGLE METER BOX CONNECTION
SHEET 46 WDC EES 2010 - NOT TO SCALE

- NOTE:
1. ALL FITTINGS TO BE WDC APPROVED
 2. BACKFLOW PREVENTERS SHALL BE PROVIDED IF REQUIRED BY WDC BYLAWS AND SHALL BE INSTALLED IN A SEPARATE BOX.

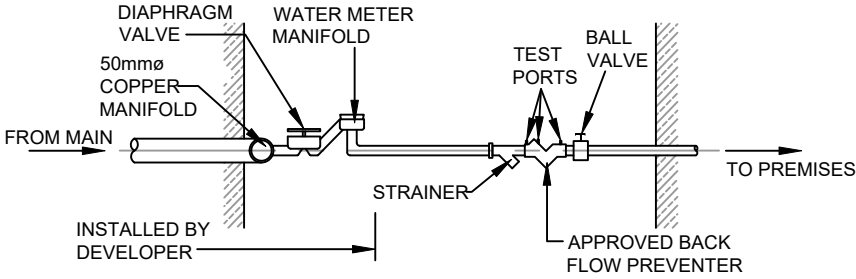


- NOTES
1. DEFLECTION OF JOINTS IS NOT TO EXCEED THE MANUFACTURER'S RECOMMENDATION.
 2. WHERE THERE ARE MORE THAN 15 CONNECTIONS FROM A RIDER MAIN, AN ISOLATING PEET VALVE SHOULD BE PROVIDED IN THE MIDDLE OF THE RIDER MAIN.
 3. ALL UNDERGROUND BOLTS TO BE STAINLESS STEEL AND WRAPPED WITH DENSO TAPE, MASTIC AND POLYTAPE.
 4. SERVICE CONNECTIONS TO TERMINATE JUST OUTSIDE FRONT BOUNDARY WITH AN APPROVED MANIFOLD, METER BOX (INCLUDING BASE) AND DIAPHRAGM VALVE INCLUDING DUAL CHECK VALVE.
 5. DIMENSIONS TO BE SUPPLIED WITH AS-BUILTS.

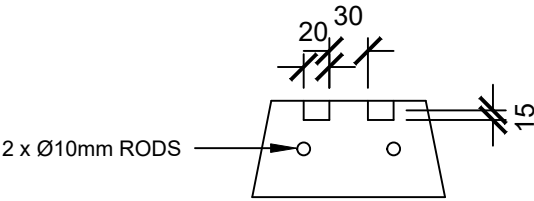
FH & VALVE INSTALLATION DETAILS
SHEET 45 WDC EES 2010 - NOT TO SCALE



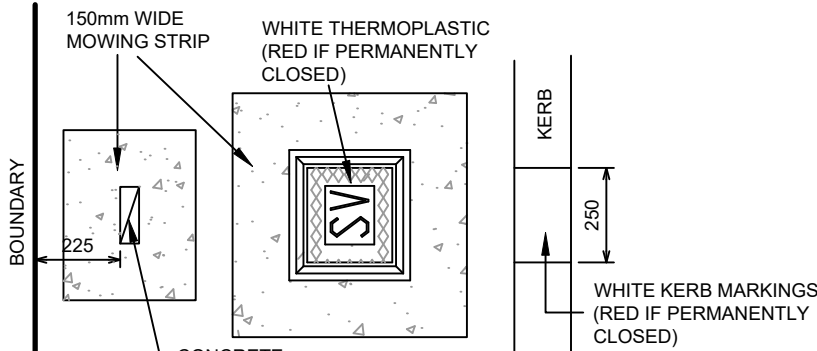
WATER CONNECTIONS TO MAINS
NOT TO SCALE



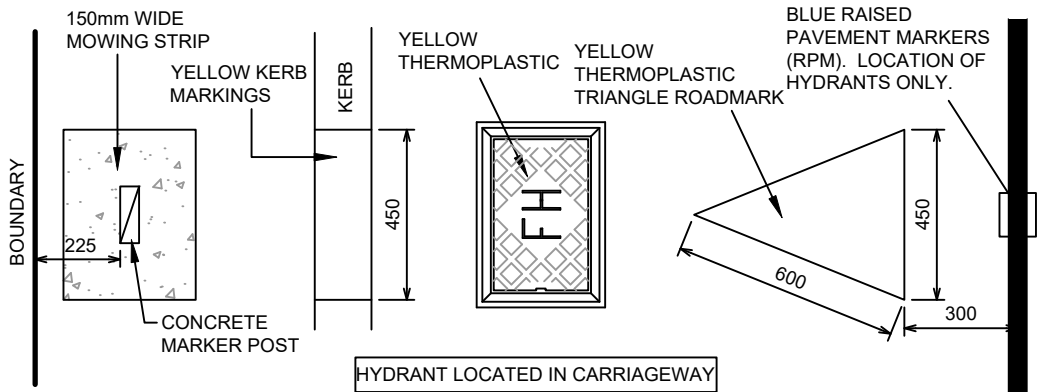
METERED SUPPLY WITH DOUBLE CHECK
VALVE BACK FLOW PREVENTER
SHEET 47 WDC EES 2010 - NOT TO SCALE



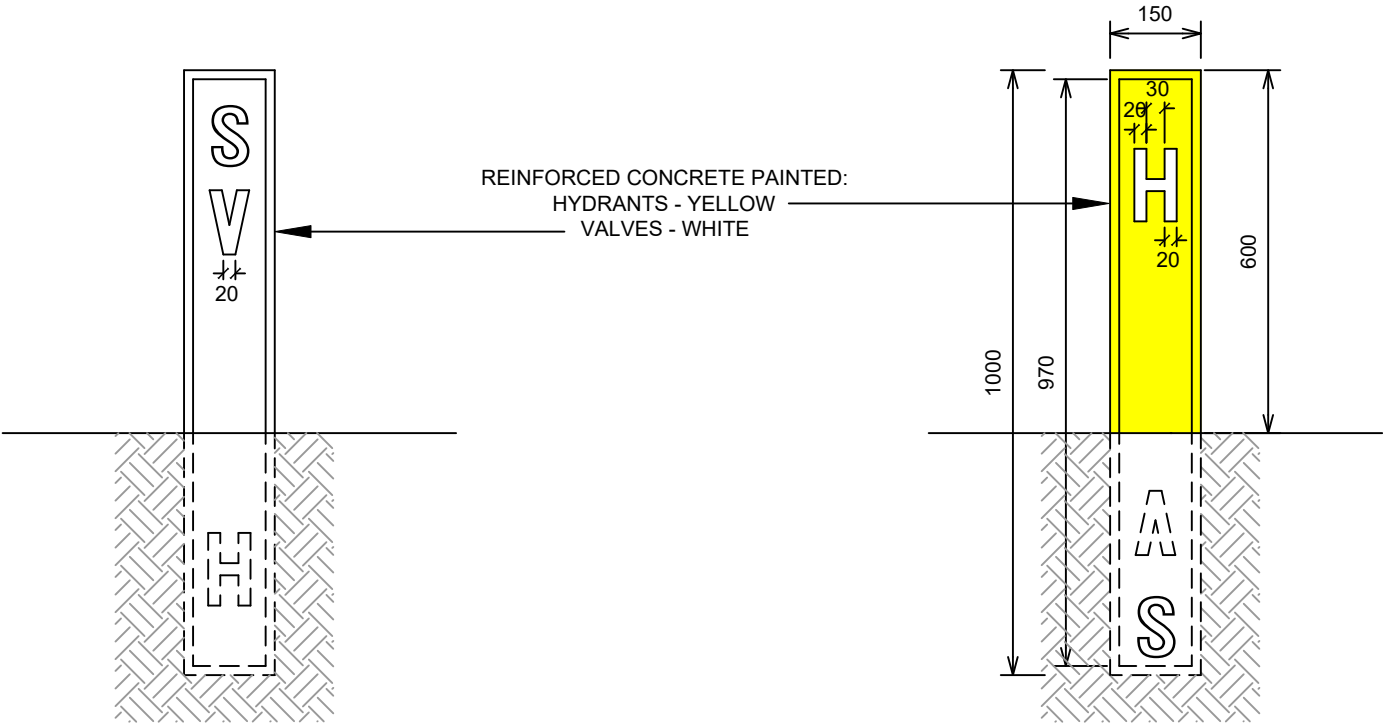
CROSS SECTION
NOT TO SCALE



VALVE MARKING
SHEET 48 WDC EES 2010 - NOT TO SCALE



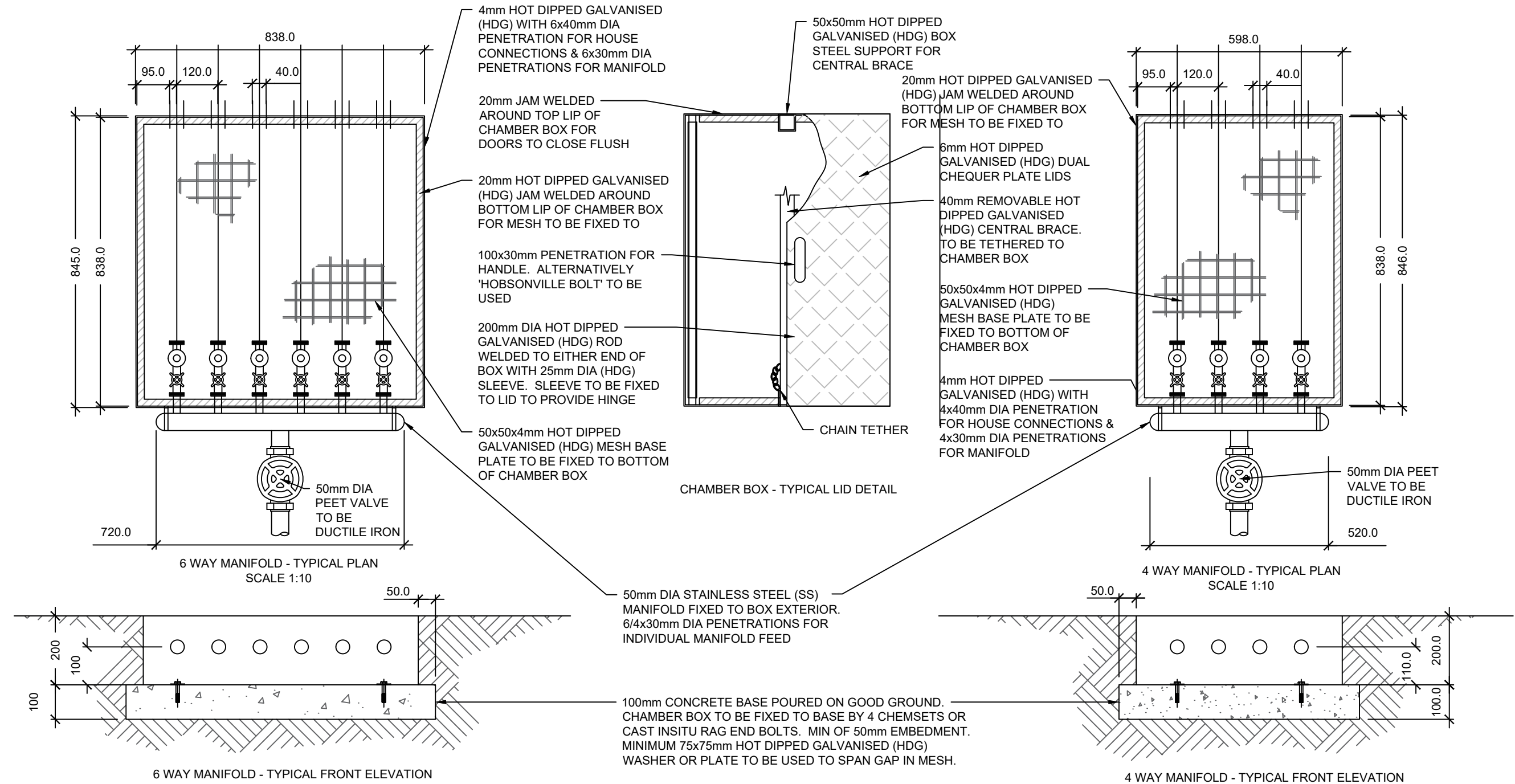
HYDRANT MARKINGS
SHEET 48 WDC EES 2010 - NOT TO SCALE



HYDRANT/VALVE MARKER POSTS
NOT TO SCALE

GM

G. M.
MCGREGOR
WDC IQP#002



4/6 WAY MANIFOLD CHAMBER BOX