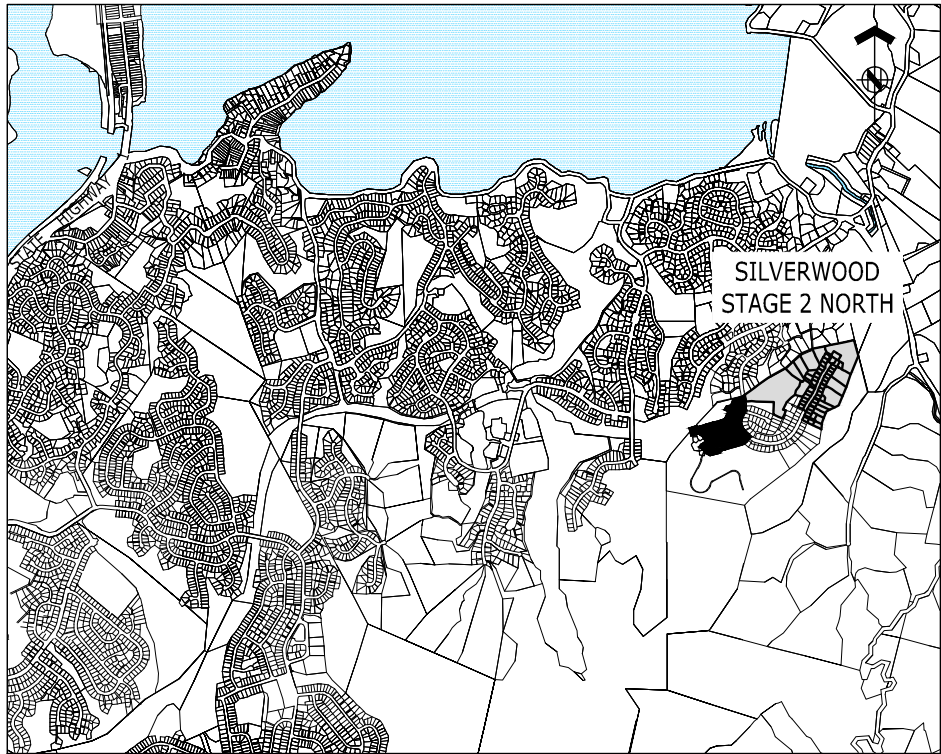


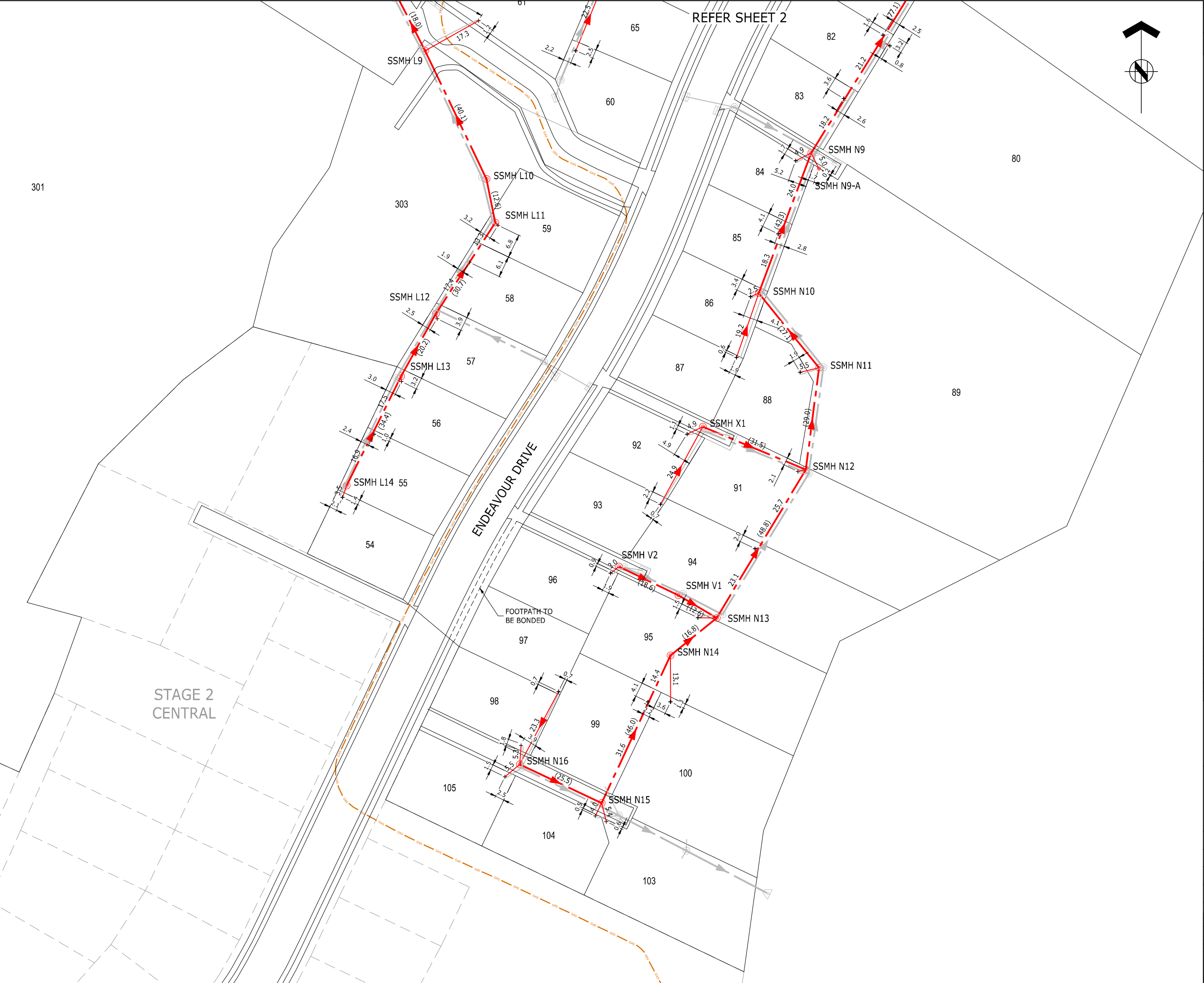
CARRUS LIMITED
SILVERWOOD - PORIRUA
STAGE 2 NORTH
AS-BUILT PLANS




LOCALITY PLAN
SCALE: 1:20 000 - A1

DRAWING INDEX

000431-2N-AB200	AS-BUILT SUBGRADE CONTOURS
000431-2N-AB201	AS-BUILT CUT / FILL CONTOURS
000431-2N-AB300	ROADING AND STREETLIGHTING AS-BUILT PLANS SHEET 1 OF 2
000431-2N-AB301	ROADING AND STREETLIGHTING AS-BUILT PLANS SHEET 2 OF 2
000431-2N-AB302	TYPICAL CROSS-SECTIONS
000431-2N-AB400	STORMWATER RETICULATION AS-BUILT PLANS SHEET 1 OF 3
000431-2N-AB401	STORMWATER RETICULATION AS-BUILT PLANS SHEET 2 OF 3
000431-2N-AB402	STORMWATER RETICULATION AS-BUILT PLANS SHEET 3 OF 3
000431-2N-AB403	SANITARY SEWER RETICULATION AS-BUILT PLANS SHEET 1 OF 3
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000431-2N-AB405	SANITARY SEWER RETICULATION AS-BUILT PLANS SHEET 3 OF 3
000431-2N-AB500	WATER RETICULATION AS-BUILT PLANS SHEET 1 OF 3
000431-2N-AB501	WATER RETICULATION AS-BUILT PLANS SHEET 2 OF 3
000431-2N-AB502	WATER RETICULATION AS-BUILT PLANS SHEET 3 OF 3





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NOTES

1. ALL HOUSE CONNECTIONS ARE 100NB UPVC.

2. ALL SEWER MAIN PIPES ARE 150NB UPVC UNLESS SHOWN OTHERWISE.

3. ALL POSITIONS AND LEVELS ARE ACCURATE AT TIME OF SURVEY.

4. LEVELS ARE IN TERMS OF MEAN SEA LEVEL.

5. ORIGIN OF LEVELS: NAIL X DP 348624, RL: 51.94m

6. COORDINATES ARE IN TERMS OF NZGD2000 - WELLINGTON CIRCUIT.

7. ALL DISTANCES SHOWN ARE HORIZONTAL DISTANCES, IN METRES.


8. WORK COMPLETED AS AT APRIL 2011.

9. POSITION OF HOUSE CONNECTIONS BASED ON INFORMATION SUPPLIED BY HIGGINS CONTRACTORS WELLINGTON.


10. ALL DISTANCES SHOWN ARE HORIZONTAL DISTANCES, IN METRES.

11. SERVICES POSITIONS AND ALIGNMENT MAY HAVE BEEN OBTAINED FROM THIRD PARTY RECORDS AND SHOULD BE VERIFIED ON SITE PRIOR TO CONSTRUCTION COMMENCING. HARRISON GRIERSON DOES NOT IN ANY WAY GUARANTEE THE ACCURACY OF ANY UNDERGROUND SERVICE SHOWN ON THIS PLAN.


LEGEND




STORMWATER LINE




STORMWATER MANHOLE




STORMWATER CONNECTION




SUMP




SEWER LINE




SEWER MANHOLE




SEWER CONNECTION



EXISTING SEWER LINE



EXISTING SEWER MANHOLE




EXISTING GAS LINE

DATA SOURCE

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HARRISON
GRIERSON

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A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

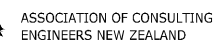
SANITARY SEWER RETICULATION
AS-BUILT PLANS
SHEET 1 OF 3

DESIGNED:	DATE:	SIGNED:	PLOT BY:
DRAWN:	DATE:	SIGNED:	PLOT DATE:
CHECKED:	DATE:	SIGNED:	SURVEY BY:
APPROVED:	DATE:	SIGNED:	SURVEY DATE:

ISSUE STATUS:

AS-BUILT ISSUE

PROJECT No:	1850-000431-15	SCALES:	1:500-A1 1:1000-A3	A1
DRAWING No:	000431-2N-AB403			REV
				A



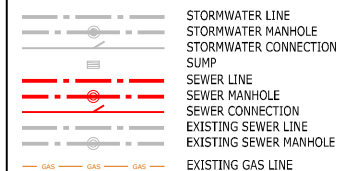
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4. LEVELS ARE IN TERMS OF MEAN SEA LEVEL.
5. ORIGIN OF LEVELS: MAIN TERMINUS 448220.00 - 19.49M
6. COORDINATES ARE IN TERMS OF 448220.00 - WELLINGTON CIRCUIT.
7. ALL DISTANCES SHOWN ARE HORIZONTAL DISTANCES, IN METRES.
8. WORK COMPLETED AS AT APRIL 2011.
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LEGEND



DATA SOURCE

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A	AS-BUILT ISSUE	PWJ	25.05.1
REF	REVISIONS	RV	DATE

REF	REV
PROJECT:	

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

SANITARY SEWER RETICULATION
AS-BUILT PLANS
SHEET 2 OF 3

DESIGNED:	DATE:	SIGNED:	PLOT BY:
DRAWN:	DATE:	SIGNED:	PLOT DATE:
GMB/SMB	18.04.11		25.05.11
CHECKED:	DATE:	SIGNED:	SURVEY BY:
PWJ/MJH	25.05.11		GM
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
PWJ	25.05.11		04.2011

ISSUE STATUS:

AS-BUILT ISSUE

PROJECT No: 1850-000431-15	SCALES: 1:500-A1 1:1000-A3	A1
DRAWING No:		REV

000431-2N-AB404

REV	
A	

MH No	mN	mE	LL	IL OUT	DEPTH OUT	IL IN-1	IL IN-2
SSMH L1	820844.18	411451.85	32.34	31.30	1.04	31.43	
SSMH L1A	820846.17	411451.53	31.15	29.81	1.34	29.99	
SSMH L2	820833.67	411439.81	44.69	43.54	1.15	43.61	43.65
SSMH L3	820817.89	411434.71	52.98	49.57	3.41	49.64	
SSMH L4	820794.29	411422.23	51.29	50.03	1.26	50.06	
SSMH L5	820759.16	411411.84	57.64	55.75	1.89	55.77	
SSMH L6	820750.63	411400.58	63.13	61.23	1.90	61.31	
SSMH L7	820730.95	411415.30	69.44	67.84	1.60	68.06	
SSMH L8	820711.12	411428.71	77.75	75.97	1.78	76.10	
SSMH L9	820695.06	411436.93	79.97	78.41	1.56	78.42	
SSMH L10	820658.89	411454.25	82.11	80.47	1.64	80.66	
SSMH L11	820646.56	411456.70	86.23	84.69	1.54	84.78	
SSMH L12	820620.87	411439.92	93.94	92.11	1.83	92.16	
SSMH L13	820603.21	411430.12	96.06	93.09	2.97	93.12	
SSMH L14	820572.38	411414.76	100.65	98.80	1.85		
SSMH M1	820801.22	411468.05	48.24	47.02	1.22	47.04	
SSMH M2	820829.80	411482.19	50.18	48.92	1.26	48.93	
SSMH M3	820825.45	411504.48	52.16	50.94	1.22	50.95	
SSMH M4	820847.49	411509.78	56.14	54.84	1.30	54.88	
SSMH M5	820861.72	411545.19	61.77	59.88	1.89	59.91	
SSMH M6	820832.57	411551.75	68.53	66.22	2.31	66.46	
SSMH M7	820792.43	411526.86	69.32	67.72	1.60	67.77	
SSMH M8	820777.43	411520.69	74.20	72.09	2.11	72.11	
SSMH M9	820756.43	411512.47	75.80	74.14	1.66	74.19	

MH No	mN	mE	LL	IL OUT	DEPTH OUT	IL IN-1	IL IN-2
SSMH M10	820715.88	411487.92	82.05	80.47	1.58	80.51	
SSMH N1	820858.18	411555.70	63.77	60.96	2.81	60.97	
SSMH N2	820845.47	411595.81	65.00	61.86	3.14	61.91	
SSMH N3	820840.14	411616.91	64.98	62.16	2.82	62.22	
SSMH N4	820820.30	411636.73	63.80	62.56	1.24	62.60	
SSMH N5	820794.75	411636.32	64.71	62.92	1.79	62.94	
SSMH N6	820792.21	411622.93	68.69	65.81	2.88	65.91	
SSMH N7	820767.60	411608.65	70.03	67.36	2.67	67.49	
SSMH N8	820731.71	411586.66	74.13	72.53	1.60	72.58	
SSMH N9	820666.29	411545.89	85.35	83.28	2.07	83.35	
SSMH N10	820626.70	411531.07	90.60	88.39	2.21	88.43	
SSMH N11	820605.66	411548.12	90.40	88.75	1.65	88.86	
SSMH N12	820576.87	411544.39	92.38	90.18	2.20	90.23	90.34
SSMH N13	820535.06	411519.21	95.65	93.65	2.00	93.72	93.78
SSMH N14	820524.44	411506.15	98.14	95.65	2.49	95.68	
SSMH N15	820482.76	411486.71	99.61	97.82	1.79	97.88	
SSMH N16	820493.74	411463.65	102.01	100.14	1.87		
SSMH V1	820541.46	411508.36	98.98	97.68	1.30	97.71	
SSMH V2	820549.48	411491.60	100.12	98.36	1.76		
SSMH X1	820589.01	411515.31	95.80	94.37	1.43		
SSMH N7-A	820763.78	411610.21	69.62	68.82	0.80		
SSMH N9-A	820661.79	411548.08	85.30	84.50	0.80		



NOTES

1. LEVELS ARE IN TERMS OF MEAN SEA LEVEL.
ORIGIN OF LEVELS: NAUL X DP 348624, RL: 51.94m
2. COORDINATES ARE IN TERMS OF NZGD2000 - WELLINGTON CIRCUIT.
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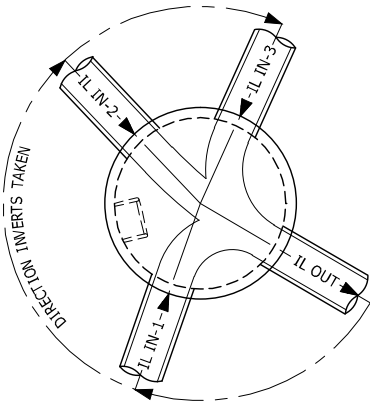


DIAGRAM OF INVERTS
NOT TO SCALE

DATA SOURCE

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A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

SANITARY SEWER RETICULATION
AS-BUILT PLANS
SHEET 3 OF 3

DESIGNED:	DATE:	SIGNED:	PLOT BY:
			SMB
DRAWN:	DATE:	SIGNED:	PLOT DATE:
GMB/SMB	18.04.11		25.05.11
CHECKED:	DATE:	SIGNED:	SURVEY BY:
PWJ/MJH	25.05.11		GMB
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
PWJ	25.05.11		04.2011

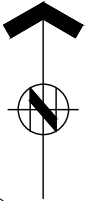
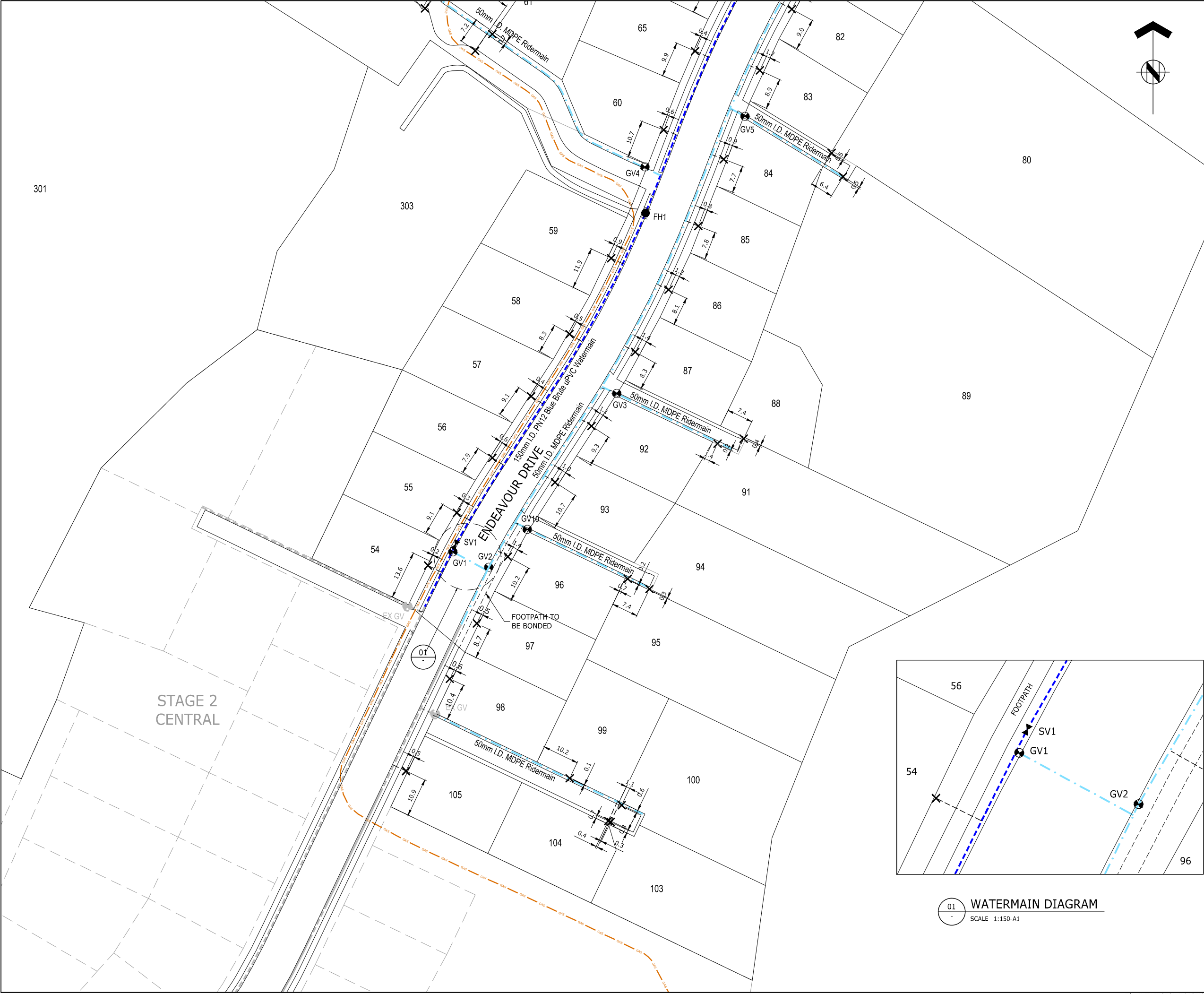
ISSUE STATUS:

AS-BUILT ISSUE

PROJECT No:	SCALES:	A1
1850-000431-15	1:500-A1 1:1000-A3	
DRAWING No:		REV

000431-2N-AB405

A



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LEGEND

- FIRE HYDRANT
- GATE VALVE
- SCOUR VALVE
- SLUICE VALVE
- WATER TOBY
- END CAP

- UPVC WATERMAIN
- MDPE RIDERMAIN
- EXISTING WATERMAIN
- EXISTING GAS LINE

DATA SOURCE

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A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

WATER RETICULATION
AS-BUILT PLANS
SHEET 1 OF 3

DESIGNED:	DATE:	SIGNED:	PLOT BY:	SMB
DRAWN:	DATE:	SIGNED:	PLOT DATE:	25.05.11
GMB/SMB	18.04.11			
CHECKED:	DATE:	SIGNED:	SURVEY BY:	GMB
PWJ/MJH	25.05.11			
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PWJ	25.05.11			

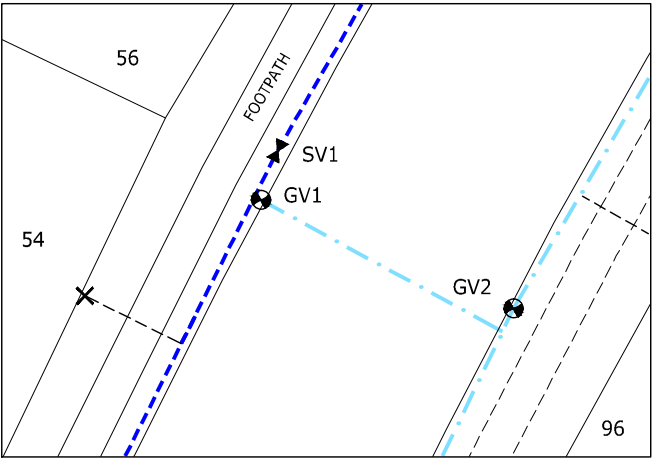
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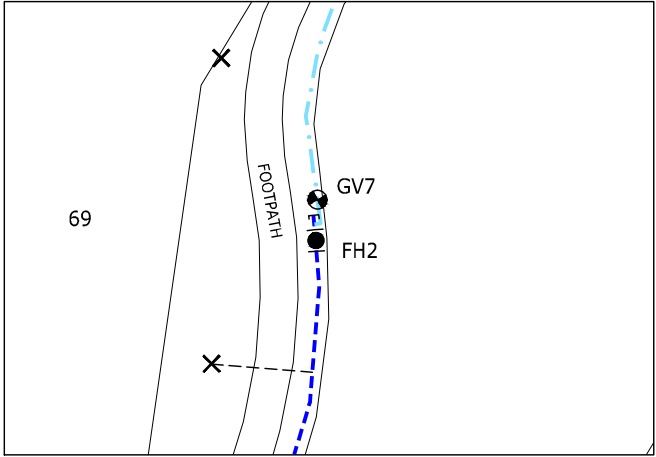
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DRAWING No:				REV

000431-2N-AB500

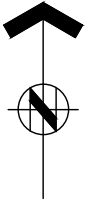
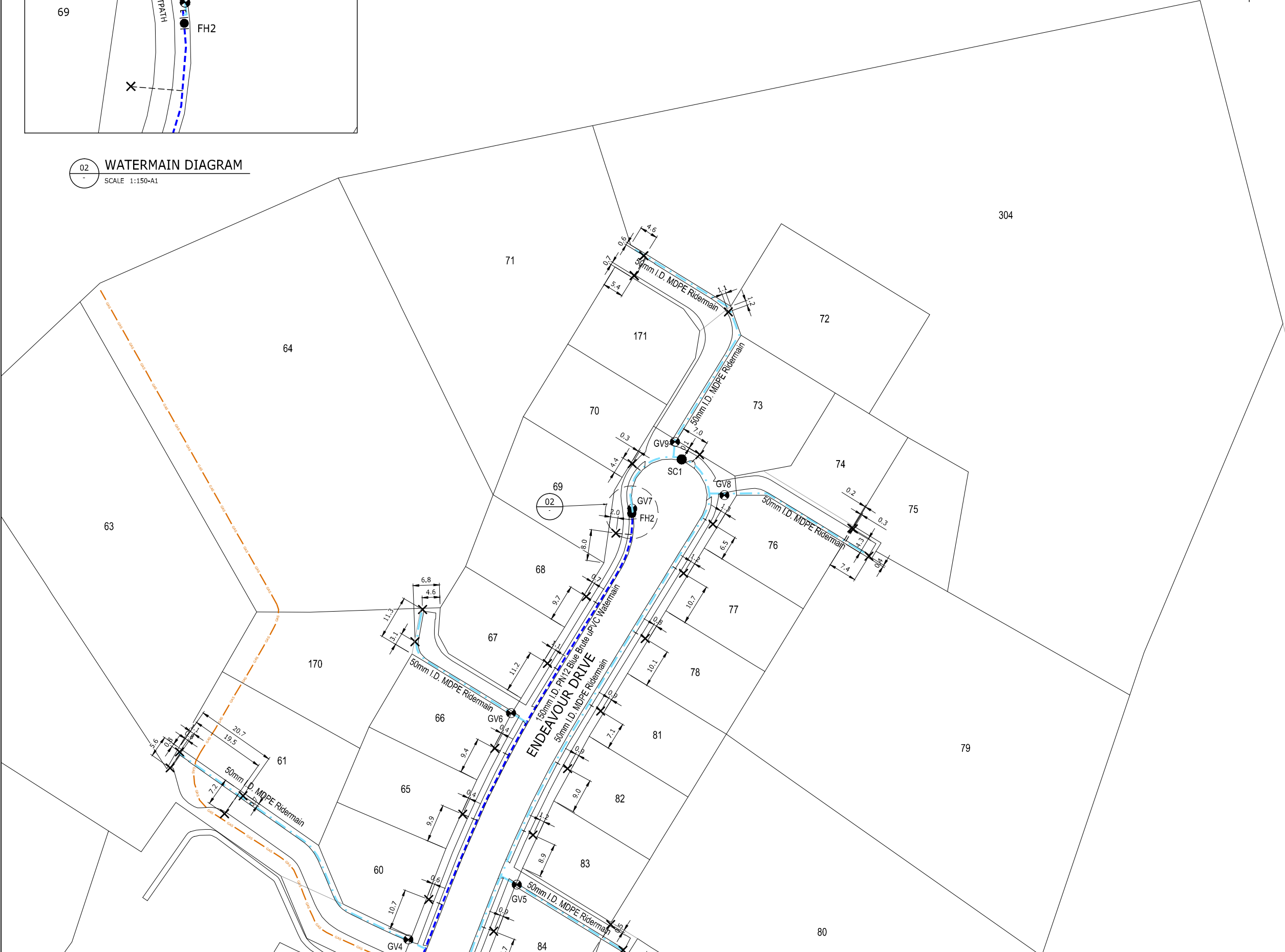
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01 WATERMAIN DIAGRAM
SCALE 1:150-A1



02 WATERMAIN DIAGRAM
SCALE 1:150-A1



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LEGEND

- FIRE HYDRANT
- GATE VALVE
- SCOUR VALVE
- SLUICE VALVE
- WATER TOBY
- END CAP

- UPVC WATERMAIN
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B	LOT 170 ROW SIZE ADDED	PWJ	12.08.11
A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:
**SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH**

TITLE:
**WATER RETICULATION
AS-BUILT PLANS
SHEET 2 OF 3**

DESIGNED:	DATE:	SIGNED:	PLOT BY:	AMO
DRAWN:	DATE:	SIGNED:	PLOT DATE:	12.08.11
GMB/SMB	18.04.11			
CHECKED:	DATE:	SIGNED:	SURVEY BY:	GMB
PWJ/MJH	12.08.11			
APPROVED:	DATE:	SIGNED:	SURVEY DATE:	04.2011
PWJ	12.08.11			

ISSUE STATUS:
AS-BUILT ISSUE

PROJECT No:	1850-000431-15	SCALES:	1:500-A1 1:1000-A3	A1
DRAWING No:				REV
				B

000431-2N-AB501

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A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

WATER RETICULATION
AS-BUILT PLANS
SHEET 3 OF 3

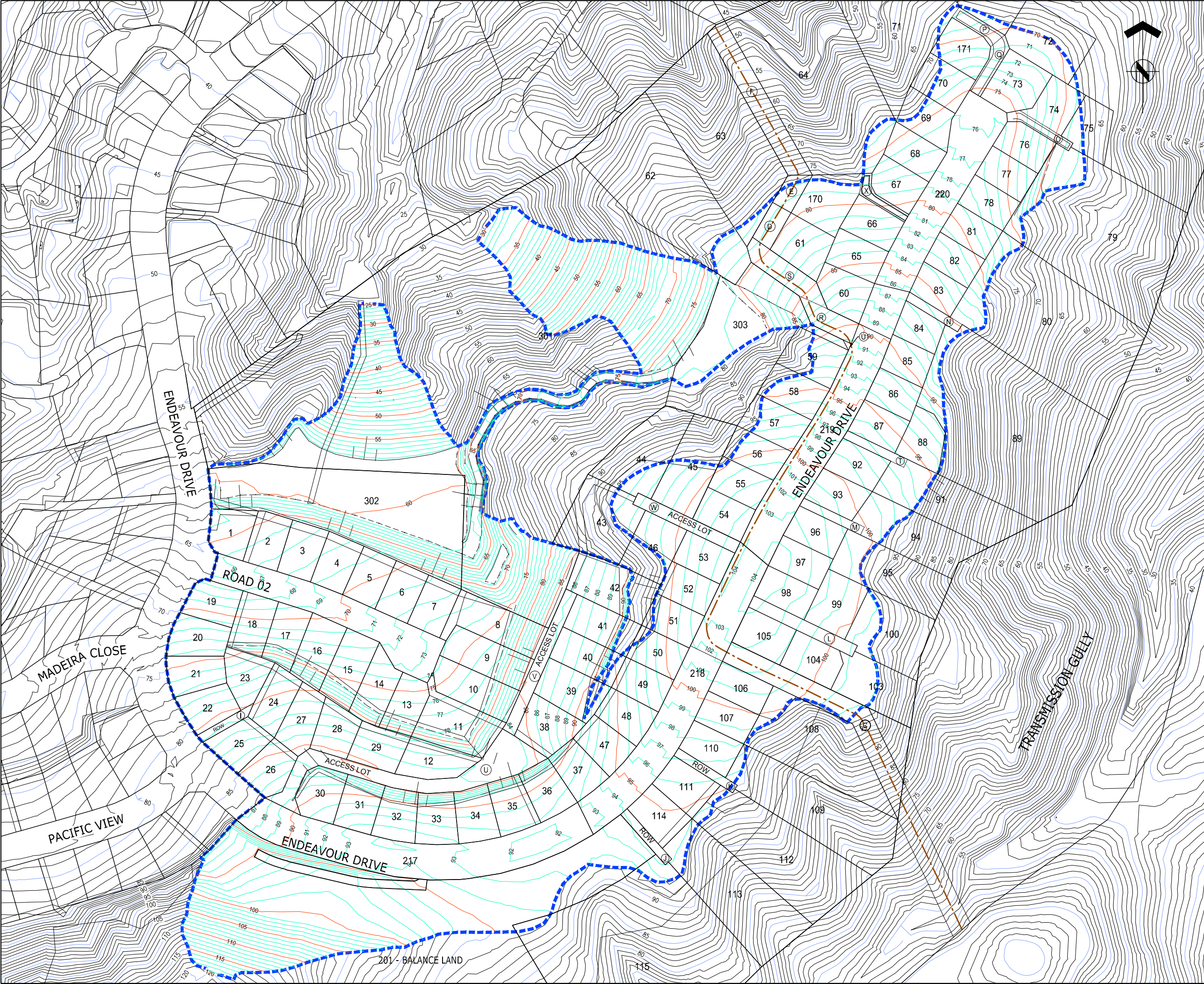
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CHECKED:	DATE:	SIGNED:	SURVEY BY:
PWJ/MJH	25.05.11		GMB
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
PWJ	25.05.11		04.2011


ISSUE STATUS:			
AS-BUILT ISSUE			
PROJECT No:	SCALES:		A1
1850-000431-15	1:500-A1 1:1000-A3		
DRAWING No:			REV
000431-2N-AB502			A

LOT CONNECTION COORDINATE TABLE		
LOT 54	820551.23	411436.15
LOT 55	820565.96	411444.24
LOT 56	820581.35	411454.18
LOT 57	820598.56	411465.02
LOT 58	820615.97	411475.80
LOT 59	820637.18	411487.42
LOT 60	820673.09	411502.12
LOT 61	820699.87	411454.15
LOT 62	820707.07	411435.32
LOT 63	820711.22	411437.75
LOT 64	820748.01	411500.53
LOT 65	820695.12	411510.91
LOT 66	820712.14	411519.21
LOT 67	820734.07	411532.79
LOT 68	820751.34	411542.81
LOT 69	820767.70	411550.46
LOT 70	820785.68	411554.67
LOT 71	820839.40	411557.66
LOT 72	820824.88	411579.54
LOT 73	820787.98	411572.12
LOT 74	820769.05	411611.39
LOT 75	820768.83	411611.83
LOT 76	820770.06	411575.55
LOT 77	820757.37	411567.94
LOT 78	820740.50	411558.05
LOT 79	820761.77	411615.86

LOT CONNECTION COORDINATE TABLE		
LOT 80	820666.64	411549.14
LOT 81	820721.77	411546.54
LOT 82	820706.88	411537.98
LOT 83	820689.76	411529.06
LOT 84	820664.88	411518.92
LOT 85	820646.19	411511.80
LOT 86	820628.39	411503.50
LOT 87	820610.95	411494.17
LOT 88	820586.71	411524.50
LOT 89	820659.97	411552.32
LOT 91	820585.31	411517.22
LOT 92	820590.25	411481.89
LOT 93	820574.51	411471.72
LOT 94	820544.65	411498.16
LOT 95	820547.50	411492.05
LOT 96	820553.70	411458.52
LOT 97	820535.03	411449.82
LOT 98	820519.52	411442.25
LOT 99	820491.71	411475.82
LOT 100	820484.20	411490.39
LOT 103	820479.49	411487.30
LOT 104	820479.74	411486.59
LOT 105	820493.76	411430.00
LOT 170	820739.69	411498.57
LOT 171	820834.26	411555.18
LOT 303	820695.23	411449.37

WATERMAIN FITTING COORDINATE TABLE		
SV 1	820556.98	411443.81
FH 1	820649.85	411497.02
FH 2	820772.83	411554.55
GV 1	820555.03	411443.13
GV 2	820550.72	411453.16
GV 3	820599.34	411488.98
GV 4	820662.72	411496.86
GV 5	820676.88	411524.87
GV 6	820721.22	411523.36
GV 7	820774.03	411554.68
GV 8	820777.52	411578.49
GV 9	820791.33	411565.71
GV 10	820561.29	411463.92
SC 1	820786.76	411567.47





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NOTES:


1. LOT LAYOUT IS INDICATIVE ONLY, SUBJECT TO FINAL LAND
TRANSFER SURVEY.


2. CONTOURS ARE SHOWN AT 1 METRE INTERVALS.


LEGEND:


INDICATES EARTHWORKS EXTENTS.


INDICATES AS-BUILT SUBGRADE CONTOURS.

INDICATES ORIGINAL CONTOURS.

INDICATES TOP OF BANK.

INDICATES BOTTOM OF BANK.

INDICATES GAS LINE



ADVISORS AND DESIGNERS

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2-6 Gilmer Terrace Wellington 6011
P +64 4 385 0005
www.harrisongrierson.com

D	TITLE REVISED TO INCLUDE NORTH STAGE	PWJ	12.05.11
C	BOUNDARIES AMENDED TO INC LOTS 170 & 171	PWJ	03.12.10
B	REVISED DRAWING	PWJ	25.05.10
A	AS-BUILT ISSUE	PWJ	04.12.09
REF	AMENDMENT	BY	DATE

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK - PORIRUA
STAGE 2 CENTRAL AND NORTH

TITLE:

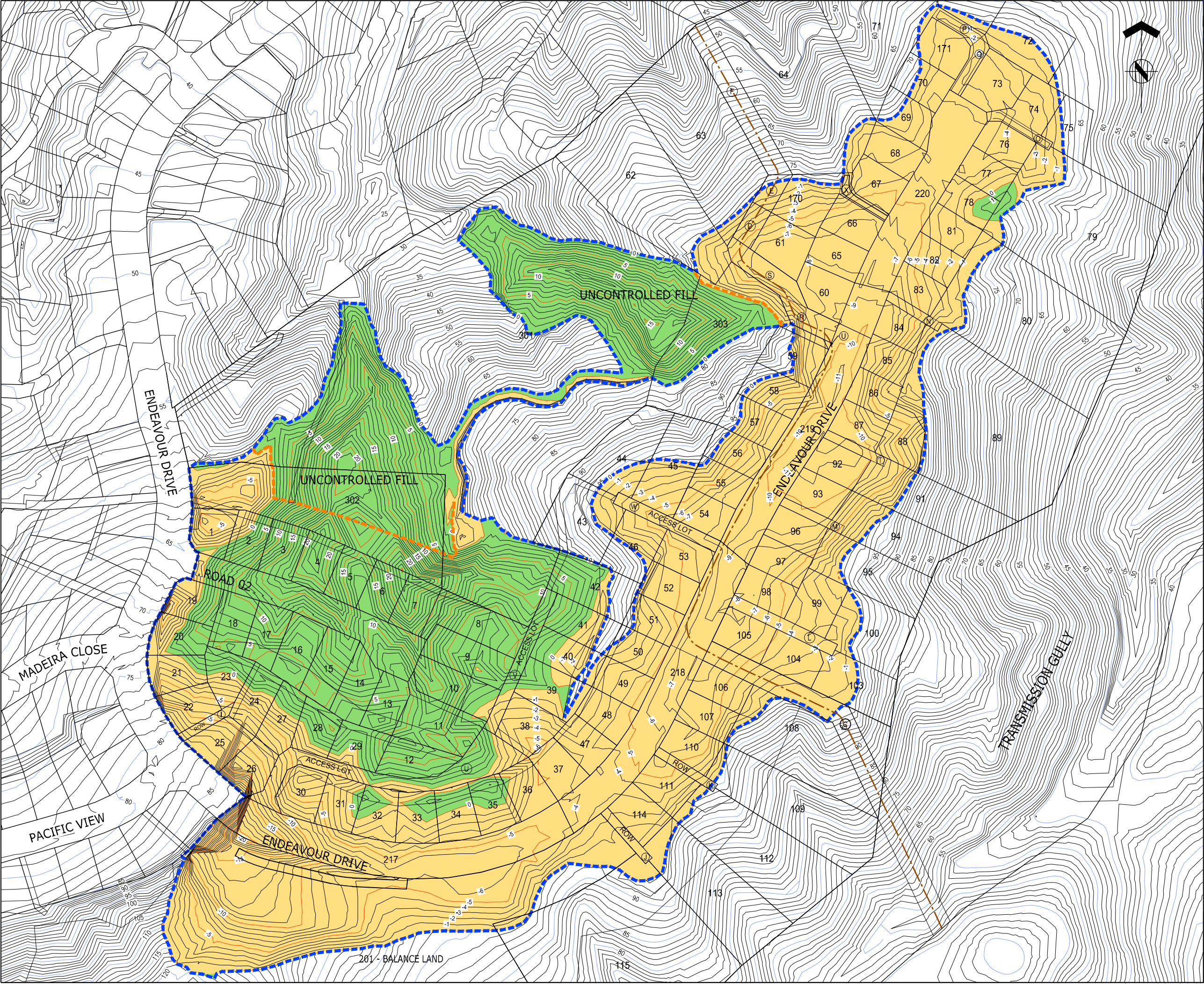
AS-BUILT SUBGRADE CONTOURS


DESIGNED:	DATE:	SIGNED:	PLOT BY:	SMB
DRAWN:	DATE:	SIGNED:	PLOT DATE:	12.05.11
CHECKED:	DATE:	SIGNED:	SURVEY BY:	GMB
APPROVED:	DATE:	SIGNED:	SURVEY DATE:	2008

ISSUE STATUS:

AS-BUILT ISSUE

PROJECT No:	1850-000431-11	SCALES:	1:1000-A1 1:2000-A3	A1
DRAWING No:	000431-2N-AB200			REV D





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
NOTES:


- LOT LAYOUT IS INDICATIVE ONLY, SUBJECT TO FINAL LAND
TRANSFER SURVEY.
- CONTOURS ARE SHOWN AT 1 METRE INTERVALS.
- UNCONTROLLED FILL IS NON-ENGINEERED FILL DETAILED
IN THE FOUNDATION COMPLETION REPORT.


LEGEND:


 INDICATES EARTHWORKS EXTENTS.


 INDICATES EXTENT OF UNCONTROLLED FILL

 INDICATES CUT CONTOURS (393,240 m3).

 INDICATES FILL CONTOURS (313,400 m3).

 INDICATES SUBSOIL DRAINS

 INDICATES GAS LINE



ADVISORS AND DESIGNERS
Office of Origin: Wellington
Level 16 Grand Plimmer Tower
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D	TITLE REVISED TO INCLUDE NORTH STAGE	PWJ	12.05.11
C	BOUNDARIES AMENDED TO INC LOTS 170 & 171	PWJ	03.12.10
B	REVISED DRAWING	PWJ	25.05.10
A	AS-BUILT ISSUE	PWJ	04.12.09
REF	AMENDMENT	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK - PORIRUA
STAGE 2 CENTRAL AND NORTH

TITLE:

AS-BUILT CUT / FILL CONTOURS


DESIGNED:	DATE:	SIGNED:	PLOT BY:	SMB
DRAWN:	DATE:	SIGNED:	PLOT DATE:	12.05.11
CHECKED:	DATE:	SIGNED:	SURVEY BY:	GMB
APPROVED:	DATE:	SIGNED:	SURVEY DATE:	2008

ISSUE STATUS:

AS-BUILT ISSUE

PROJECT No:	1850-000431-15	SCALES:	1:1000-A1 1:2000-A3	A1
DRAWING No:	000431-2N-AB201			REV D





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LEGEND

SINGLE LIGHT 7.5m HPS 150W

EXISTING STREETLIGHT

NOTES

1.

ALL LIGHT POLES MANUFACTURED AND SUPPLIED
BY KENDELIER LIGHTING.


DATA SOURCE

1.

THIS PLAN HAS BEEN CARRIED OUT TO TOPOGRAPHICAL STANDARDS. ALL
LEVELS SHOWN ARE CORRECT AT TIME OF SURVEY. CRITICAL DIMENSIONS
AND LEVELS SHOULD BE VERIFIED.

2.

SERVICES POSITIONS AND ALIGNMENT MAY HAVE BEEN OBTAINED FROM
THIRD PARTY RECORDS AND SHOULD BE VERIFIED ON SITE PRIOR TO
CONSTRUCTION COMMENCING. HARRISON GRIERSON DOES NOT IN ANY
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ON THIS PLAN.



HARRISON
GRIERSON

ADVISORS AND DESIGNERS

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A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

ROADING AND STREETLIGHTING
AS-BUILT PLANS
SHEET 1 OF 2


DESIGNED:	DATE:	SIGNED:	PLOT BY:
			SMB
DRAWN:	DATE:	SIGNED:	PLOT DATE:
GMB/SMB	18.04.11		25.05.11
CHECKED:	DATE:	SIGNED:	SURVEY BY:
PWJ/MJH	25.05.11		GMB
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
PWJ	25.05.11		04.2011

ISSUE STATUS:

AS-BUILT ISSUE

PROJECT No:	SCALES:	A1
1850-000431-15	1:500-A1 1:1000-A3	
DRAWING No:	REV	
000431-2N-AB300	A	





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LEGEND

SINGLE LIGHT 7.5m HPS 150W

EXISTING STREETLIGHT

NOTES

1.

ALL LIGHT POLES MANUFACTURED AND SUPPLIED BY KENDELIER LIGHTING.


DATA SOURCE

1.

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ADVISORS AND DESIGNERS

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A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

ROADING AND STREETLIGHTING
AS-BUILT PLANS
SHEET 2 OF 2

DESIGNED:	DATE:	SIGNED:	PLOT BY:
			SMB
DRAWN:	DATE:	SIGNED:	PLOT DATE:
GMB/SMB	18.04.11		25.05.11
CHECKED:	DATE:	SIGNED:	SURVEY BY:
PWJ/MJH	25.05.11		GMB
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
PWJ	25.05.11		04.2011

ISSUE STATUS:

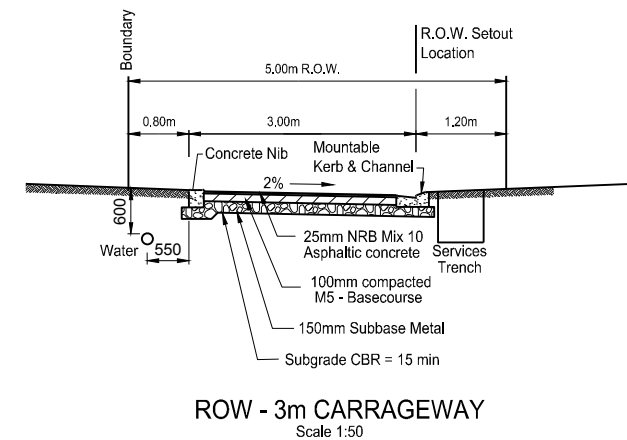
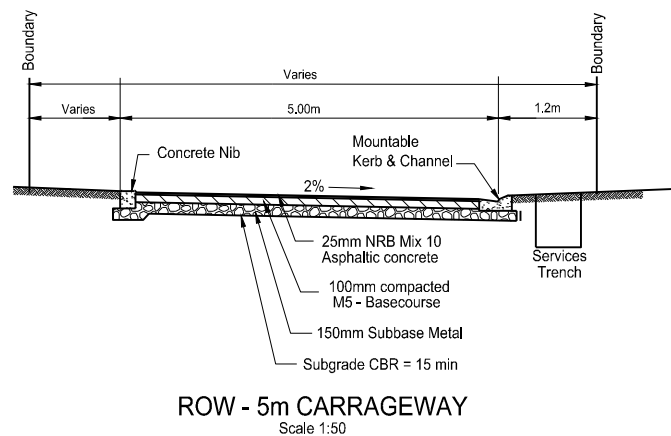
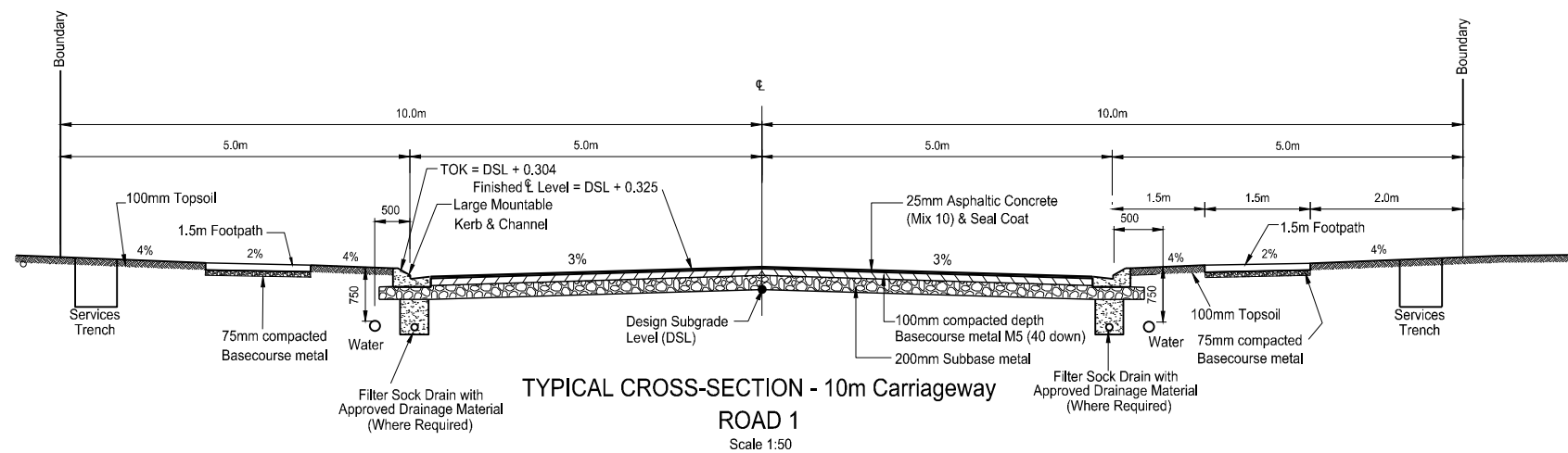
AS-BUILT ISSUE


PROJECT No:	SCALES:	A1
1850-000431-15	1:500-A1 1:1000-A3	
DRAWING No:	REV	
000431-2N-AB301	A	

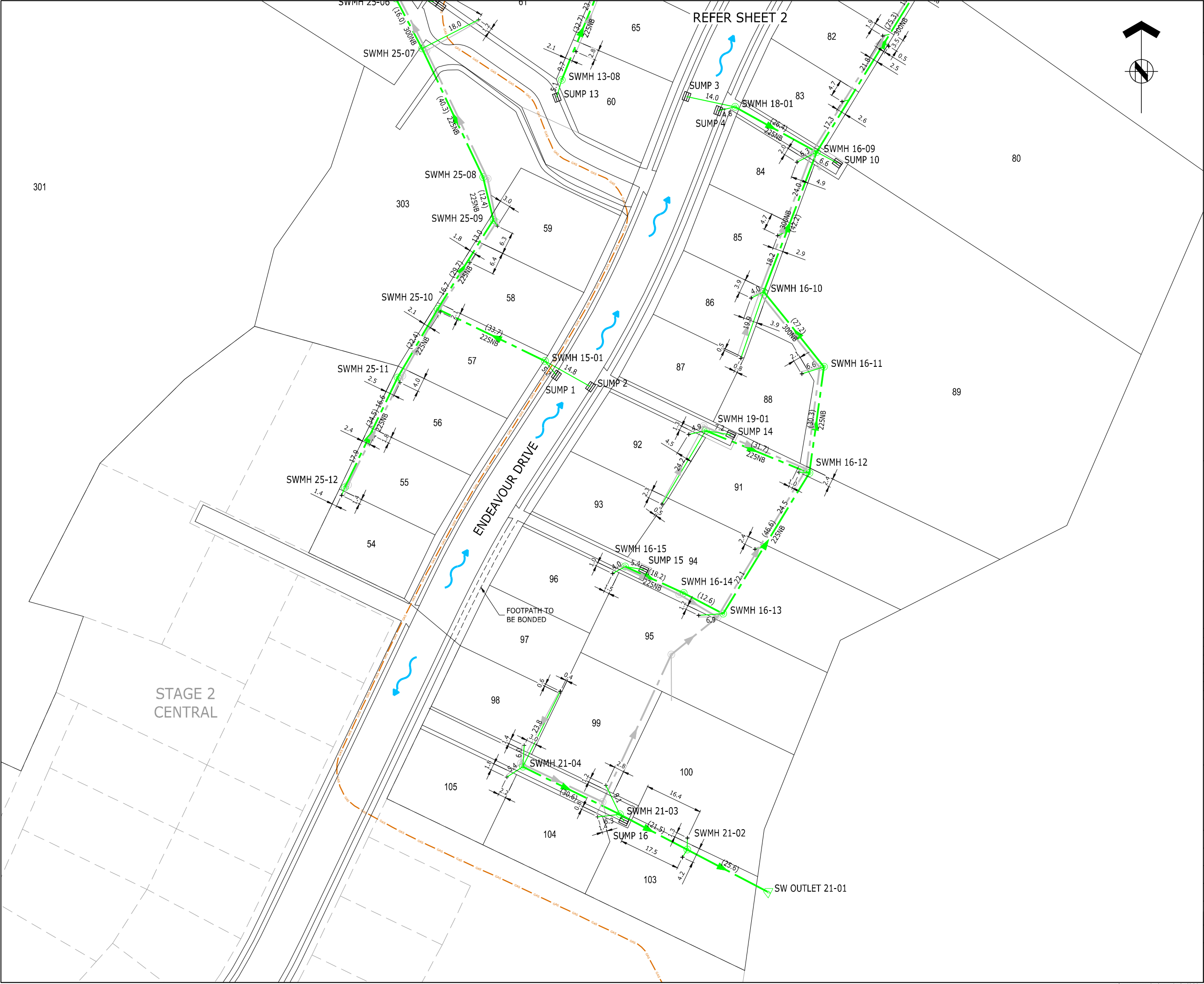
File: WELLINGTON N:\1850\00431_A\CAD\12_ASUILTS STAGE 2 NORTH\000431-2N-AB300-400-500.DWG

NOTES:


1, ALL METAL SUPPLIED FROM WINSTONE AGGREGATES (BELMONT QUARRY)



		HARRISON GRIERSON	
CONSULTING ENGINEERS SURVEYORS PLANNERS			
Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006			
A	AS-BUILT ISSUE	PWJ	12.08.2011
REF	AMENDMENT	BY	DATE
PROJECT:			
SILVERWOOD JV SILVERWOOD BLOCK - PORIRUA CIVIL CONTRACT - STAGE 2 NORTH			
TITLE:			
TYPICAL CROSS-SECTIONS			
ORIGINATOR: HGCL	DATE: 08.2011	SIGNED:	PLOT BY: PWJ
DRAWN: MAM/AMC	DATE: 12.08.11	SIGNED:	PLOT DATE: 09.09.11
CHECKED: PWJ	DATE: 12.08.11	SIGNED:	SURVEY BY:
APPROVED: AMB	DATE: 12.08.11	SIGNED:	SURVEY DATE:
ISSUE STATUS:			
AS-BUILT ISSUE			
PROJECT No: 1850-000431-12	SCALES: AS SHOWN		A1
DRAWING No: 000431-2N-AB302			REV A



REFER SHEET 2



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NOTES

1.

ALL STORMWATER MAINS ARE BOSSPIPE S88 UNLESS OTHERWISE NOTED.

2.

ALL HOUSE CONNECTIONS ARE 100mm DIA uPVC.

3.

ALL SINGLE SUMP LEADS ARE 225mm DIA BOSSPIPE.

4.

ALL DOUBLE SUMP LEADS ARE 300mm DIA BOSSPIPE.

5.

ALL SUMPS HAVE ENVIROPODS INSTALLED.

6.

ALL POSITIONS AND LEVELS ARE ACCURATE AS AT TIME OF SURVEY.

7.

LEVELS ARE IN TERMS OF MEAN SEA LEVEL.

8.

ORIGIN OF LEVELS: NAIL X DP 348624, RL: 51.94m

9.

COORDINATES ARE IN TERMS OF NZGD2000 - WELLINGTON CIRCUIT.

10.

WORK COMPLETED AS AT APRIL 2011.

11.

POSITION OF HOUSE CONNECTIONS BASED ON INFORMATION SUPPLIED BY HIGGINS CONTRACTORS WELLINGTON.

12.

ALL DISTANCES SHOWN ARE HORIZONTAL DISTANCES, IN METRES.


13.

SERVICES POSITIONS AND ALIGNMENT MAY HAVE BEEN OBTAINED FROM THIRD PARTY RECORDS AND SHOULD BE VERIFIED ON SITE PRIOR TO CONSTRUCTION COMMENCING. HARRISON GRIERSON DOES NOT IN ANY WAY GUARANTEE THE ACCURACY OF ANY UNDERGROUND SERVICE SHOWN ON THIS PLAN.


14.

LOTS 71, 79 AND 89 ARE SUBJECT TO A CONSENT NOTICE ALLOWING ON-SITE STORMWATER DISPOSAL.


LEGEND




STORMWATER LINE




STORMWATER MANHOLE




STORMWATER CONNECTION




SUMP




SEWER LINE




SEWER MANHOLE




SEWER CONNECTION




EXISTING STORMWATER LINE



EXISTING STORMWATER MANHOLE



SECONDARY FLOW PATH



EXISTING GAS LINE


DATA SOURCE

1.

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2.

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ADVISORS AND DESIGNERS

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www.harrisongrierson.com

B	NOTE 5 ADDED	PWJ	12.08.11
A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

STORMWATER RETICULATION
AS-BUILT PLANS
SHEET 1 OF 3

DESIGNED:	DATE:	SIGNED:	PLOT BY:	AMO
DRAWN:	DATE:	SIGNED:	PLOT DATE:	12.08.11
GMB/SMB	18.04.11			
CHECKED:	DATE:	SIGNED:	SURVEY BY:	GMB
PWJ/MJH	12.08.11			
APPROVED:	DATE:	SIGNED:	SURVEY DATE:	04.2011
PWJ	12.08.11			

ISSUE STATUS:

AS-BUILT ISSUE

PROJECT No:	1850-000431-15	SCALES:	1:500-A1 1:1000-A3	A1
DRAWING No:	000431-2N-AB400			REV
				B

MH No	mN	mE	LL	IL OUT	DEPTH OUT	IL IN-1	IL IN-2
SWMH 13-01	820833.70	411618.76	65.50	63.76	1.74	63.79	
SWMH 13-02	820841.76	411593.04	66.09	64.31	1.78	64.36	
SWMH 13-03	820841.84	411556.62	67.72	66.02	1.70	66.27	
SWMH 13-04	820791.93	411525.61	69.24	67.80	1.44	67.89	
SWMH 13-05	820778.41	411520.27	73.95	71.79	2.16	71.85	
SWMH 13-06	820758.08	411512.20	75.59	73.87	1.72	74.09	73.95
SWMH 13-06A	820747.82	411506.24	77.16	75.56	1.60	75.58	
SWMH 13-07	820717.08	411487.67	81.95	80.35	1.60	80.39	
SWMH 13-08	820686.86	411475.16	85.01	83.33	1.68		
SW OUTLET 16-01	820788.52	411704.18		31.79			
SWMH 16-01	820793.13	411701.45	34.69	32.37	2.32	32.74	
SWMH 16-02	820830.96	411680.58	49.02	47.07	1.95	47.11	
SWMH 16-03	820831.19	411668.30	53.76	51.55	2.21	51.57	
SWMH 16-04	820829.62	411642.91	61.74	59.84	1.90	59.86	59.85
SWMH 16-05	820794.10	411638.57	64.31	62.24	2.07	62.45	
SWMH 16-06	820791.07	411623.75	68.74	65.77	2.97	65.94	
SWMH 16-07	820768.02	411609.87	69.88	67.28	2.60	67.45	67.33
SWMH 16-08	820730.50	411586.93	74.08	72.64	1.44	72.72	
SWMH 16-09	820666.44	411547.28	85.25	83.13	2.12	83.21	83.23
SWMH 16-10	820626.98	411532.34	90.44	88.24	2.20	88.33	
SWMH 16-11	820605.79	411549.35	90.33	88.78	1.55	88.81	
SWMH 16-12	820575.75	411545.21	92.34	90.21	2.13	90.24	90.34
SWMH 16-13	820536.02	411520.83	95.69	93.54	2.15	93.65	
SWMH 16-14	820541.86	411509.66	98.88	97.48	1.40	97.56	
SWMH 16-15	820549.33	411493.05	100.01	98.27	1.74		
SWMH 17-01	820780.96	411587.07	75.18	73.50	1.68	73.53	

MH No	mN	mE	LL	IL OUT	DEPTH OUT	IL IN-1	IL IN-2
SWMH 17-02	820779.68	411580.39	75.77	74.18	1.59		
SW OUTLET 21-01	820457.45	411533.35		85.51			
SWMH 21-02	820469.33	411510.65	97.16	95.31	1.85	95.40	
SWMH 21-03	820479.29	411491.59	99.05	97.34	1.71	97.36	
SWMH 21-04	820492.78	411464.17	101.91	100.17	1.74		
SWMH 25-01	820690.22	411223.53	23.96	23.65	0.32		
SWMH 25-01B	820692.50	411234.40	30.12	28.57	1.55	28.67	
SWMH 25-02	820700.74	411291.65	33.90	32.13	1.77	32.20	
SWMH 25-02B	820722.52	411312.14	35.65	34.20	1.45	34.28	
SWMH 25-03	820732.60	411340.34	52.39	50.59	1.80	50.84	
SWMH 25-04	820735.20	411363.92	61.86	58.85	3.01	58.96	
SWMH 25-05	820737.73	411409.26	67.26	65.46	1.80	65.52	
SWMH 25-06	820709.87	411428.31	77.82	76.30	1.52	76.34	
SWMH 25-07	820695.70	411435.68	79.91	78.28	1.63	78.34	
SWMH 25-08	820659.32	411452.97	82.03	80.39	1.64	80.48	
SWMH 25-09	820647.30	411455.87	86.09	84.41	1.68	84.61	
SWMH 25-10	820622.08	411440.12	93.70	91.96	1.74	92.12	92.02
SWMH 25-11	820602.72	411428.78	96.07	93.19	2.88	94.37	
SWMH 25-12	820571.67	411413.86	100.66	98.88	1.78		
SWMH 14-01	820740.94	411538.95	78.96	77.56	1.40		
SWMH 15-01	820607.38	411470.43	97.68	96.56	1.12		
SWMH 18-01	820679.19	411524.16	86.56	85.31	1.25		
SWMH 19-01	820587.72	411515.90	95.78	94.34	1.44		

MH No	mN	mE	LL
SUMP 1	820603.35	411473.70	97.61
SUMP 2	820600.15	411483.32	97.36
SUMP 3	820682.15	411510.46	86.64
SUMP 4	820678.13	411519.43	86.71
SUMP 5	820740.49	411541.33	78.63
SUMP 6	820734.22	411548.99	78.76
DBL SUMP 7	820785.85	411567.47	75.51
DBL SUMP 8	820837.50	411559.54	68.25
SUMP 9	820765.23	411616.62	68.64
SUMP 10	820663.32	411553.14	84.82
SUMP 11	820746.05	411503.57	77.25
DBL SUMP 12	820709.09	411439.01	78.78
SUMP 13	820681.92	411473.81	85.46
SUMP 14	820586.54	411523.03	95.32
SUMP 15	820548.42	411498.43	99.54
SUMP 16	820477.42	411492.74	98.82

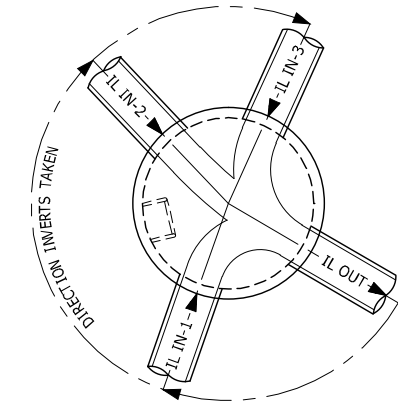


DIAGRAM OF INVERTS
NOT TO SCALE

DATA SOURCE

- THIS PLAN HAS BEEN CARRIED OUT TO TOPOGRAPHICAL STANDARDS. ALL LEVELS SHOWN ARE CORRECT AT TIME OF SURVEY. CRITICAL DIMENSIONS AND LEVELS SHOULD BE VERIFIED.
- SERVICES POSITIONS AND ALIGNMENT MAY HAVE BEEN OBTAINED FROM THIRD PARTY RECORDS AND SHOULD BE VERIFIED ON SITE PRIOR TO CONSTRUCTION COMMENCING. HARRISON GRIERSON DOES NOT IN ANY WAY GUARANTEE THE ACCURACY OF ANY UNDERGROUND SERVICE SHOWN ON THIS PLAN.



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A	AS-BUILT ISSUE	PWJ	25.05.11
REF	REVISIONS	BY	DATE

PROJECT:

SILVERWOOD JOINT VENTURE
SILVERWOOD BLOCK WHITBY
STAGE 2 NORTH

TITLE:

STORMWATER RETICULATION
AS-BUILT PLANS
SHEET 3 OF 3

DESIGNED:	DATE:	SIGNED:	PLOT BY:
			SMB
DRAWN:	DATE:	SIGNED:	PLOT DATE:
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CHECKED:	DATE:	SIGNED:	SURVEY BY:
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