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ENGINEERS NEW ZEALAND

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NOTES:
1, Contours are shown at 1m Intervals.
2,  Indicates Earthworks Boundary.



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CONSULTING ENGINEERS SURVEYORS PLANNERS

Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

B	LOT NUMBERS ADDED	NDH	05-08-2008
A	INITIAL RELEASE	PWJ	15-04-2008
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGE 6 & 7

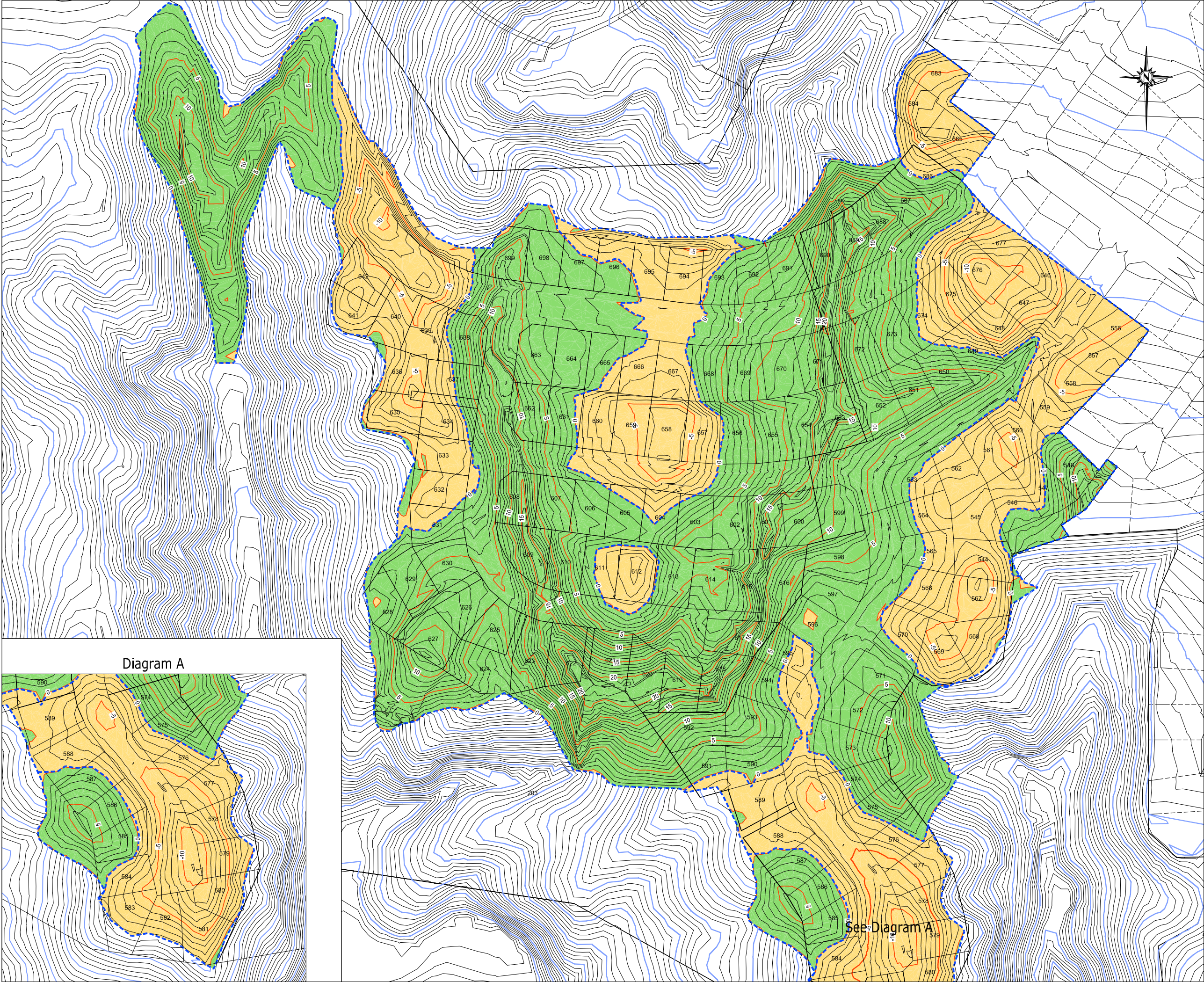
TITLE:

ASBUILT SUBGRADE SURFACE

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:	05-08-2008
DRAWN:	DATE:	SIGNATURE:	CAD REF:	
PWJ	03-2008		CAD XREF:	
CHECKED:	DATE:	SIGNATURE:	SURVEY BY:	GMB
BWH	16-04-2008		SURVEY DATE:	09-2007
APPROVED:	DATE:	SIGNATURE:	SDR REF:	
PWMW	16-04-2008			

PLOT STATUS:
AS BUILT

PROJECT No:	1850-000633-01	SCALES:	1:1000 1:2000 (A3)	A1
DRAWING No:	000633-6-7-AB200			REV B





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NOTES:
1, Contours are shown at 1m Intervals.
2,  Indicates Earthworks Boundary.
3,  Indicates Cut Contours.
Total Cut = 177,300m3
4,  Indicates Fill Contours.
Total Fill = 571,700m3



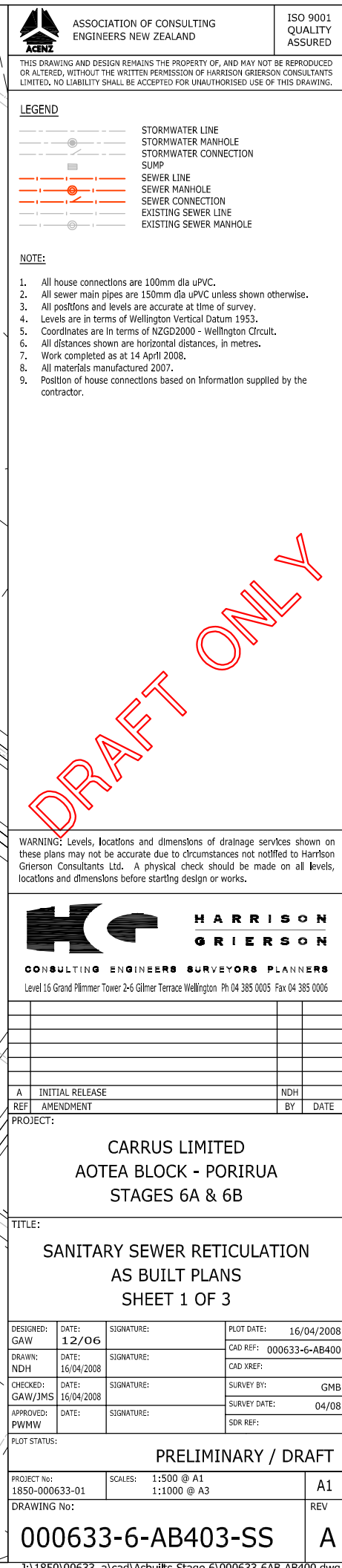
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CONSULTING ENGINEERS SURVEYORS PLANNERS

Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

B	LOT NUMBERS ADDED	NDH	05-08-2008
A	INITIAL RELEASE	PWJ	15-04-2008
REF	AMENDMENT	BY	DATE
PROJECT:			
CARRUS LIMITED AOTEA BLOCK - PORIRUA STAGE 6 & 7			
TITLE:			
ASBUILT CERTIFIED CUT / FILL SURFACE WITH VOLUMES			
DESIGNED:	DATE:	SIGNATURE:	PLOT DATE: 05-08-2008
DRAWN: PWJ	DATE: 03-2008	SIGNATURE:	CAD REF:
CHECKED: BWH	DATE: 16-04-2008	SIGNATURE:	CAD XREF:
APPROVED: PMMW	DATE: 16-04-2008	SIGNATURE:	SURVEY BY: GMB
			SURVEY DATE: 09-2007
			SDR REF:
PLOT STATUS:			
AS BUILT			
PROJECT No: 1850-000633-01	SCALES: 1:1000 1:2000 (A3)	A1	
DRAWING No:		REV	
000633-6-7-AB201		B	

MH No	mN	mE	LL	IL	Depth
SSMH I1	819071.27	407332.83	90.28	88.82	1.46
SSMH I2	819097.16	407368.54	94.38	92.96	1.42
SSMH I3	819129.60	407398.95	98.49	96.94	1.55
SSMH J1	819106.67	407315.81	92.67	91.20	1.47
SSMH J2	819131.54	407350.29	95.98	94.26	1.72
SSMH G4	819020.93	407336.34	86.97	85.37	1.60
SSMH G5	819049.73	407382.10	91.72	89.77	1.95
SSMH G6	819087.94	407421.02	95.75	93.88	1.87
SSMH H2	819018.01	407408.30	90.60	89.29	1.31
SSMH A14	819052.31	407291.36	86.12	84.35	1.77
SSMH A15	819088.09	407278.29	89.59	87.73	1.86
SSMH A16	819121.02	407266.37	91.80	89.54	2.26
SSMH A17	819137.57	407261.24	91.80	90.11	1.69
SSMH A18	819156.70	407299.26	94.51	93.07	1.44
SSMH A19	819183.56	407331.11	97.78	96.40	1.38
EXSSMH D7	819203.53	407346.35	99.83	98.32	1.51
EXSSMH D8	819225.15	407318.50	101.63	100.10	1.53
EXSSMH D9	819280.57	407358.26	107.06	105.60	1.46



MH No	mN	mE	LL	IL	Depth
SSMH D1A	818885.99	407210.51	68.57	66.59	1.98
SSMH D1	818901.27	407210.27	69.64	67.73	1.91
SSMH D2	818931.02	407225.01	72.03	70.45	1.58
SSMH D3	818968.70	407253.29	76.66	74.86	1.80
SSMH D4	818990.82	407255.55	78.70	77.60	1.10
SSMH D5	818998.28	407256.64	81.24	79.97	1.27
SSMH F1	818919.78	407323.60	77.74	75.57	2.17
SSMH G1	818954.35	407333.49	80.78	79.05	1.73
SSMH G2	818975.81	407339.12	83.13	81.22	1.91
SSMH G3	819001.80	407338.25	85.49	83.59	1.90
SSMH G4	819020.93	407336.34	86.97	85.37	1.60
SSMH G5	819049.73	407382.10	91.72	89.77	1.95
SSMH G6	819087.94	407421.02	95.75	93.88	1.87
SSMH H1	818999.30	407370.39	87.53	85.76	1.77
SSMH H2	819018.01	407408.30	90.60	89.29	1.31
SSMH A8	818856.46	407212.27	66.86	65.08	1.78
SSMH A9	818865.81	407244.14	69.68	67.13	2.55
SSMH A10	818894.21	407256.87	71.12	69.39	1.73
SSMH A11	818908.45	407263.11	72.59	70.77	1.82
SSMH A12	818944.30	407290.34	76.99	75.19	1.80
SSMH A13	818966.17	407302.35	79.18	77.43	1.75
SSMH A14	819052.31	407291.36	86.12	84.35	1.77
SSMH A15	819088.09	407278.29	89.59	87.73	1.86
SSMH A16	819121.02	407266.37	91.80	89.54	2.26
SSMH I1	819071.27	407332.83	90.28	88.82	1.46
SSMH I2	819097.16	407368.54	94.38	92.96	1.42
SSMH J1	819106.67	407315.81	92.67	91.20	1.47
SSMH B2	818902.31	407157.57	65.41	63.65	1.76

Future
Stage 7

Future
Stage 7





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LEGEND

- STORMWATER LINE
- STORMWATER MANHOLE
- STORMWATER CONNECTION
- SUMP
- SEWER LINE
- SEWER MANHOLE
- SEWER CONNECTION
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE

NOTE:

- All house connections are 100mm dia uPVC.
- All sewer main pipes are 150mm dia uPVC unless shown otherwise.
- All positions and levels are accurate at time of survey.
- Levels are in terms of Wellington Vertical Datum 1953.
- Coordinates are in terms of NZGD2000 - Wellington Circuit.
- All distances shown are horizontal distances, in metres.
- Work completed as at 14 April 2008.
- All materials manufactured 2007.
- Position of house connections based on Information supplied by the contractor.

WARNING: Levels, locations and dimensions of drainage services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



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GRIERSON**

CONSULTING ENGINEERS SURVEYORS PLANNERS

Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

A	INITIAL RELEASE	NDH
REF	AMENDMENT	BY DATE

PROJECT:

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGES 6A & 6B

TITLE:

SANITARY SEWER RETICULATION
AS BUILT PLANS
SHEET 2 OF 3

DESIGNED: GAW	DATE: 12/06	SIGNATURE:	PLOT DATE: 16/04/2008
DRAWN: NDH	DATE: 16/04/2008	SIGNATURE:	CAD REF: 000633-6-AB400
CHECKED: GAW/JMS	DATE: 16/04/2008	SIGNATURE:	SURVEY BY: GMB
APPROVED: PMMW	DATE:	SIGNATURE:	SURVEY DATE: 04/08
SDR REF:			

PLOT STATUS:

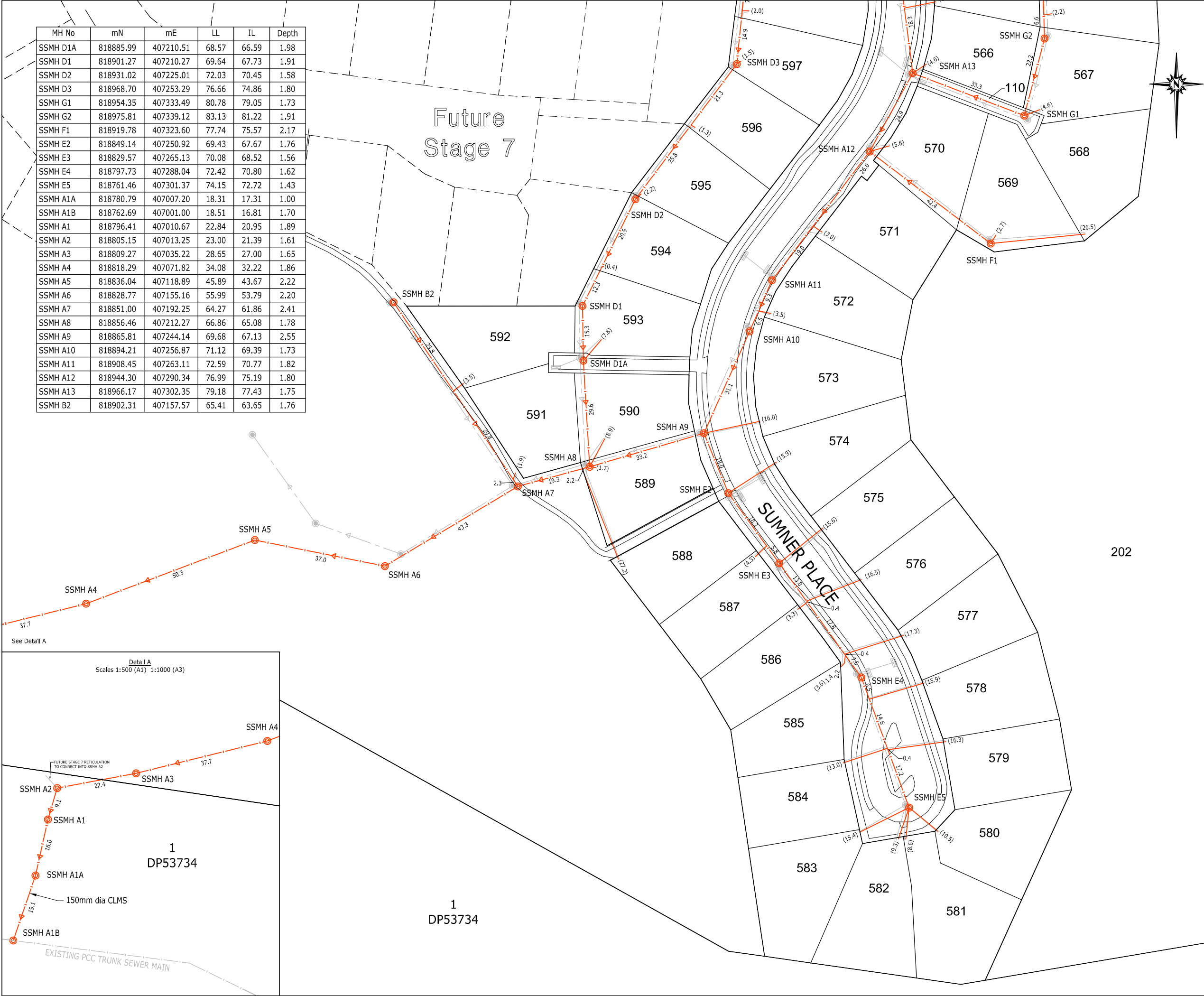
PRELIMINARY / DRAFT


PROJECT No: 1850-000633-01	SCALES: 1:500 @ A1 1:1000 @ A3	A1
DRAWING No:		REV

000633-6-AB404-SS

A

DRAFT ONLY






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LEGEND




STORMWATER LINE




STORMWATER MANHOLE




STORMWATER CONNECTION




SUMP




SEWER LINE




SEWER MANHOLE



SEWER CONNECTION



EXISTING SEWER LINE



EXISTING SEWER MANHOLE

NOTE:

1.

All house connections are 100mm dia uPVC.

2.

All sewer main pipes are 150mm dia uPVC unless shown otherwise.

3.

All positions and levels are accurate at time of survey.

4.

Levels are in terms of Wellington Vertical Datum 1953.

5.

Coordinates are in terms of NZGD2000 - Wellington Circuit.

6.

All distances shown are horizontal distances, in metres.

7.

Work completed as at 14 April 2008.

8.

All materials manufactured 2007.

9.

Position of house connections based on information supplied by the contractor.

WARNING: Levels, locations and dimensions of drainage services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



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CONSULTING ENGINEERS SURVEYORS PLANNERS

Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

REF	AMENDMENT	BY	DATE
A	INITIAL RELEASE		NDH
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGES 6A & 6B

TITLE:

SANITARY SEWER RETICULATION
AS BUILT PLANS
SHEET 3 OF 3

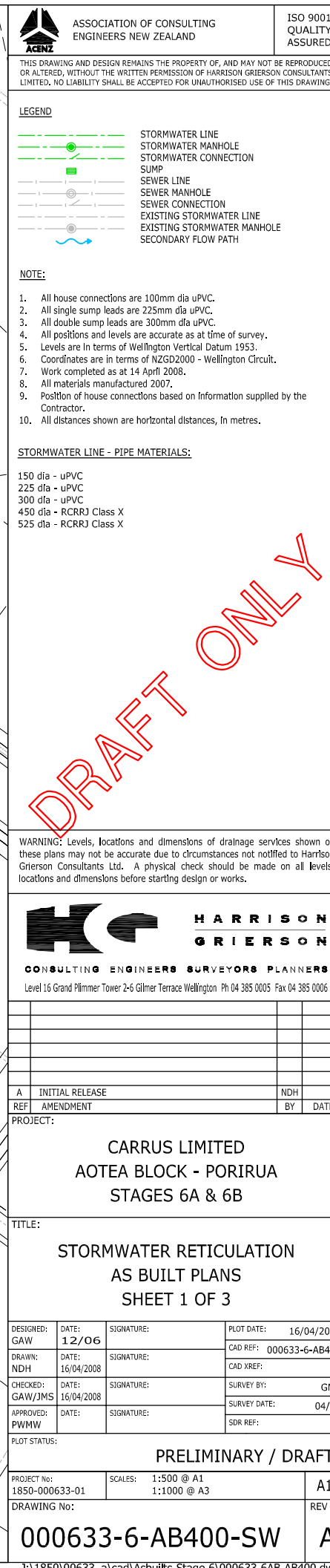
DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
GAW	12/06		16/04/2008
DRAWN:	DATE:	SIGNATURE:	CAD REF:
NDH	16/04/2008		000633-6-AB400
CHECKED:	DATE:	SIGNATURE:	CAD XREF:
GAW/JMS	16/04/2008		
APPROVED:	DATE:	SIGNATURE:	SURVEY BY:
PWMW			GMB
			SURVEY DATE:
			04/08
			SDR REF:

PLOT STATUS:

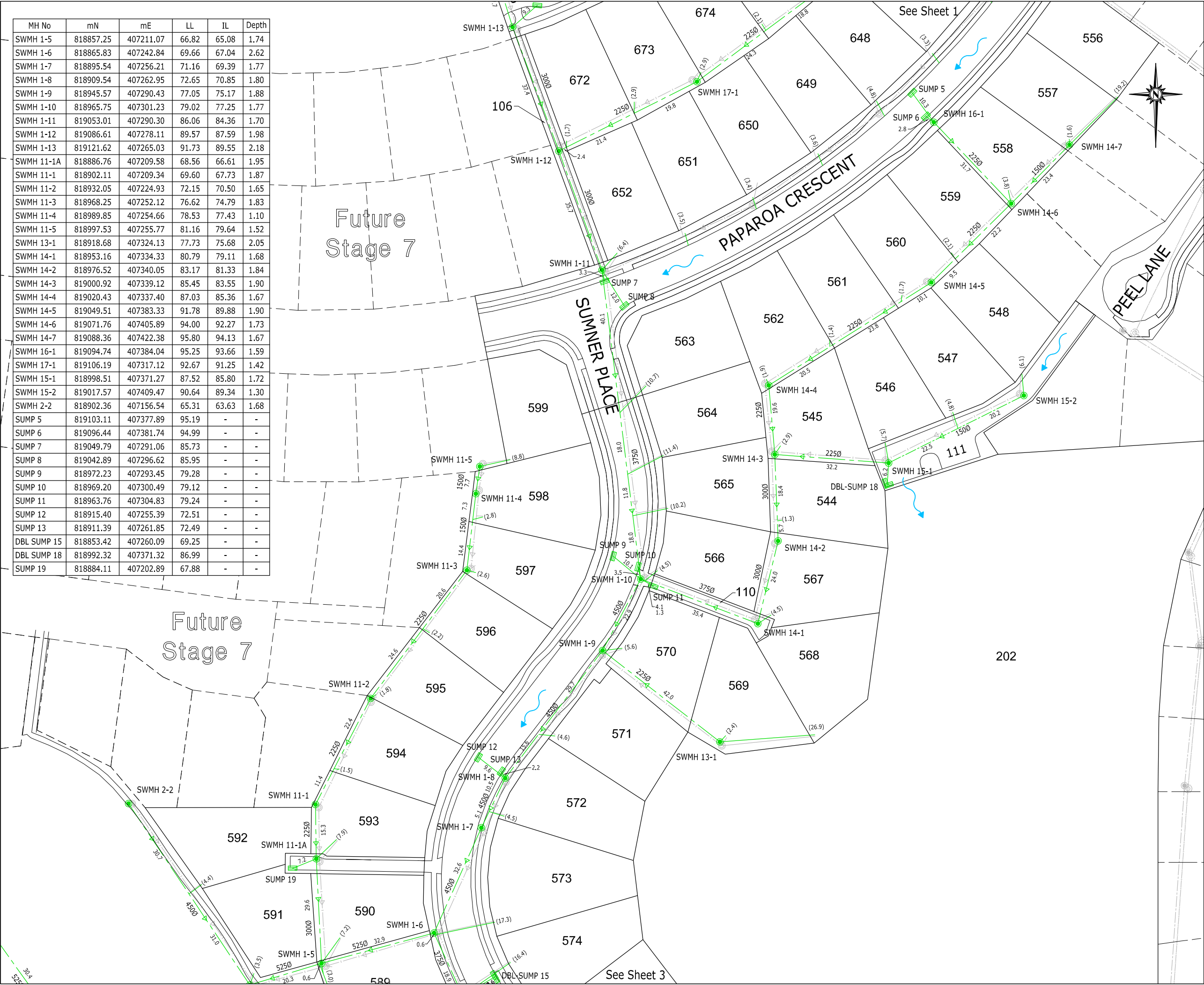
PRELIMINARY / DRAFT

PROJECT No:	SCALES:	A1
1850-000633-01	1:500 @ A1 1:1000 @ A3	
DRAWING No:		REV
000633-6-AB405-SS		A

J:\1850\00633_a\cad\asbuilt\Stage 6\000633-6AB-AB400.dwg



MH No	mN	mE	LL	IL	Depth
SWMH 1-5	818857.25	407211.07	66.82	65.08	1.74
SWMH 1-6	818865.83	407242.84	69.66	67.04	2.62
SWMH 1-7	818895.54	407256.21	71.16	69.39	1.77
SWMH 1-8	818909.54	407262.95	72.65	70.85	1.80
SWMH 1-9	818945.57	407290.43	77.05	75.17	1.88
SWMH 1-10	818965.75	407301.23	79.02	77.25	1.77
SWMH 1-11	819053.01	407290.30	86.06	84.36	1.70
SWMH 1-12	819086.61	407278.11	89.57	87.59	1.98
SWMH 1-13	819121.62	407265.03	91.73	89.55	2.18
SWMH 11-1A	818886.76	407209.58	68.56	66.61	1.95
SWMH 11-1	818902.11	407209.34	69.60	67.73	1.87
SWMH 11-2	818932.05	407224.93	72.15	70.50	1.65
SWMH 11-3	818968.25	407252.12	76.62	74.79	1.83
SWMH 11-4	818989.85	407254.66	78.53	77.43	1.10
SWMH 11-5	818997.53	407255.77	81.16	79.64	1.52
SWMH 13-1	818918.68	407324.13	77.73	75.68	2.05
SWMH 14-1	818953.16	407334.33	80.79	79.11	1.68
SWMH 14-2	818976.52	407340.05	83.17	81.33	1.84
SWMH 14-3	819000.92	407339.12	85.45	83.55	1.90
SWMH 14-4	819020.43	407337.40	87.03	85.36	1.67
SWMH 14-5	819049.51	407383.33	91.78	89.88	1.90
SWMH 14-6	819071.76	407405.89	94.00	92.27	1.73
SWMH 14-7	819088.36	407422.38	95.80	94.13	1.67
SWMH 16-1	819094.74	407384.04	95.25	93.66	1.59
SWMH 17-1	819106.19	407317.12	92.67	91.25	1.42
SWMH 15-1	818998.51	407371.27	87.52	85.80	1.72
SWMH 15-2	819017.57	407409.47	90.64	89.34	1.30
SWMH 2-2	818902.36	407156.54	65.31	63.63	1.68
SUMP 5	819103.11	407377.89	95.19	-	-
SUMP 6	819096.44	407381.74	94.99	-	-
SUMP 7	819049.79	407291.06	85.73	-	-
SUMP 8	819042.89	407296.62	85.95	-	-
SUMP 9	818972.23	407293.45	79.28	-	-
SUMP 10	818969.20	407300.49	79.12	-	-
SUMP 11	818963.76	407304.83	79.24	-	-
SUMP 12	818915.40	407255.39	72.51	-	-
SUMP 13	818911.39	407261.85	72.49	-	-
DBL SUMP 15	818853.42	407260.09	69.25	-	-
DBL SUMP 18	818892.32	407371.32	86.99	-	-
SUMP 19	818884.11	407202.89	67.88	-	-

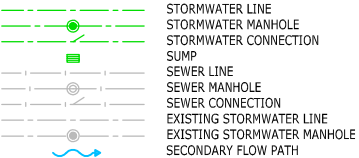


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LEGEND



NOTE:

1. All house connections are 100mm dia uPVC.
2. All single pump leads are 225mm dia uPVC.
3. All double pump leads are 300mm dia uPVC.
4. All positions and levels are accurate as at time of survey.
5. Levels are in terms of Wellington Vertical Datum 1953.
6. Coordinates are in terms of NZGD2000 - Wellington Circuit.
7. Work completed as at 14 April 2008.
8. All materials manufactured 2007.
9. Position of house connections based on Information supplied by the Contractor.
10. All distances shown are horizontal distances, in metres.

STORMWATER LINE - PIPE MATERIALS:

150 dia - uPVC
225 dia - uPVC
300 dia - uPVC
450 dia - RCRRJ Class X
525 dia - RCRRJ Class X

WARNING: Levels, locations and dimensions of drainage services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



A	INITIAL RELEASE	NDH	
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGES 6A & 6B

TITLE:

STORMWATER RETICULATION
AS BUILT PLANS
SHEET 2 OF 3

DESIGNED: JAW	DATE: 12/06	SIGNATURE:	PLOT DATE: 16/04/2008
DRAWN: DH	DATE: 16/04/2008	SIGNATURE:	CAD REF: 000633-6-AB4
CHECKED: JAW/JMS	DATE: 16/04/2008	SIGNATURE:	CAD XREF:
APPROVED: WMMW	DATE:	SIGNATURE:	SURVEY BY: GMM
			SURVEY DATE: 04/06/08
			SDR REF:

LOT STATUS:

PRELIMINARY / DRAFT

PROJECT No: 850-000633-01	SCALES: 1:500 @ A1 1:1000 @ A3	A1
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DRAWING No:

000633-6-AB401-SW

REV

A

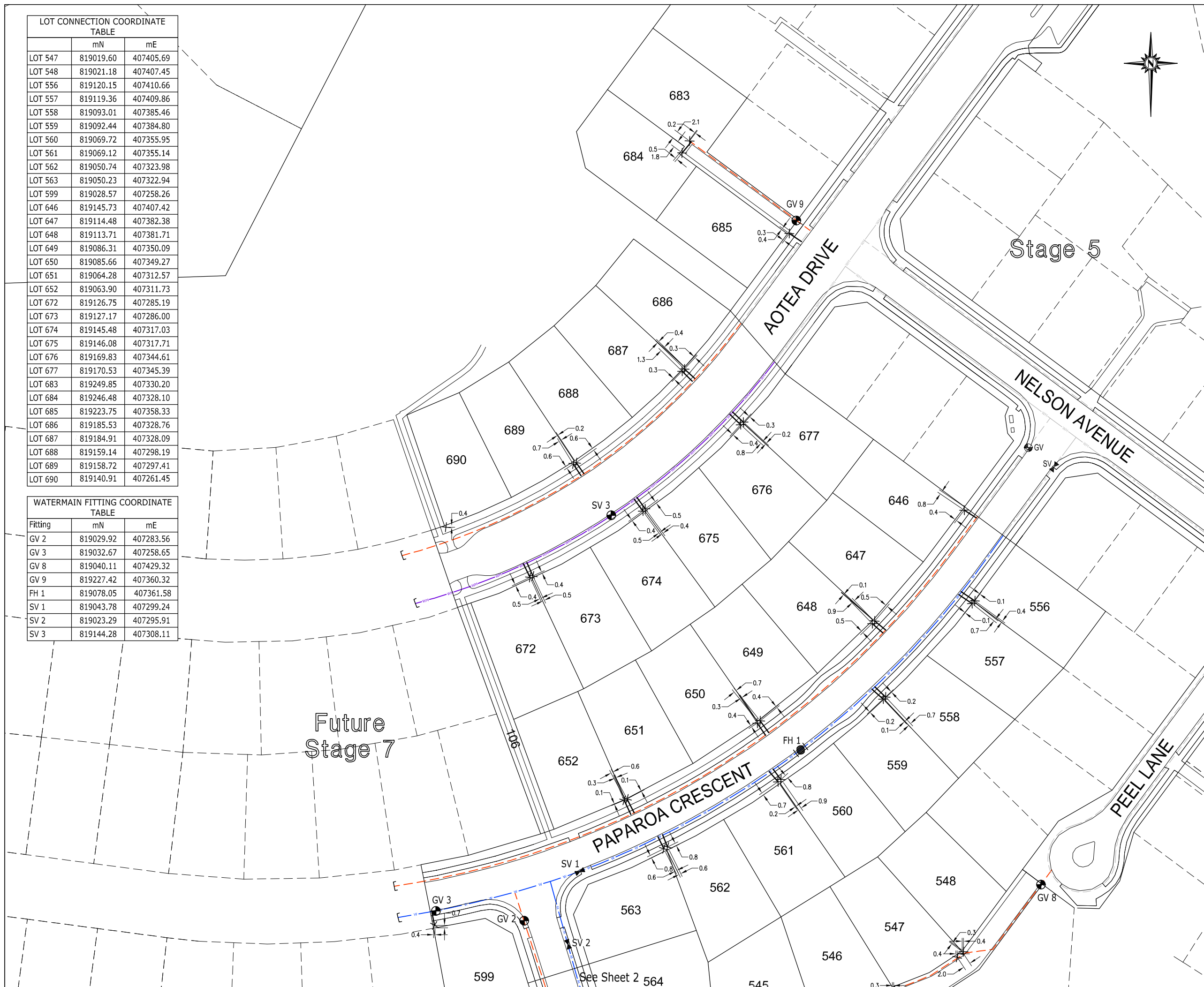
This technical drawing illustrates a future stage of a development project, specifically focusing on the drainage infrastructure. The map shows a network of lots, each identified by a unique number. Key streets include SUMNER PLACE, which runs diagonally through the center-right portion of the plan. The drainage system is composed of several interconnected components:

- SWMH (Storm Water Management Holes):** Labeled throughout the plan, including SWMH 1-1 through 1-14, 11-1 through 11-3, 12-1 through 12-5, 13-1, 14-1, and 14-2.
- SUMP (Sumps):** Designated collection points for stormwater, including SUMP 9, 10, 11, 12, 13, 14, 15, 16, and 17.
- DBL-SUMP:** Double-sump locations, specifically DBL-SUMP 14 and DBL-SUMP 15.
- Flow Indicators:** Blue arrows show the direction of water flow from various lots into the sumps and along the drainage paths.
- Elevation Data:** Numerous numerical values are provided along the drainage lines, likely representing elevations or depths relative to a datum.
- Orientation and Scale:** A north arrow is positioned in the upper right corner. A scale bar in the lower left corner indicates distances in feet, ranging from 0 to 100.

The plan also references other sheets of the project, with 'See Sheet 2' noted in the upper right and 'Future Stage 7' indicating the developmental phase. The overall layout suggests a comprehensive approach to managing stormwater runoff across the entire site area shown.

LOT CONNECTION COORDINATE TABLE		
	mN	mE
LOT 547	819019.60	407405.69
LOT 548	819021.18	407407.45
LOT 556	819120.15	407410.66
LOT 557	819119.36	407409.86
LOT 558	819093.01	407385.46
LOT 559	819092.44	407384.80
LOT 560	819069.72	407355.95
LOT 561	819069.12	407355.14
LOT 562	819050.74	407323.98
LOT 563	819050.23	407322.94
LOT 599	819028.57	407258.26
LOT 646	819145.73	407407.42
LOT 647	819114.48	407382.38
LOT 648	819113.71	407381.71
LOT 649	819086.31	407350.09
LOT 650	819085.66	407349.27
LOT 651	819064.28	407312.57
LOT 652	819063.90	407311.73
LOT 672	819126.75	407285.19
LOT 673	819127.17	407286.00
LOT 674	819145.48	407317.03
LOT 675	819146.08	407317.71
LOT 676	819169.83	407344.61
LOT 677	819170.53	407345.39
LOT 683	819249.85	407330.20
LOT 684	819246.48	407328.10
LOT 685	819223.75	407358.33
LOT 686	819185.53	407328.76
LOT 687	819184.91	407328.09
LOT 688	819159.14	407298.19
LOT 689	819158.72	407297.41
LOT 690	819140.91	407261.45

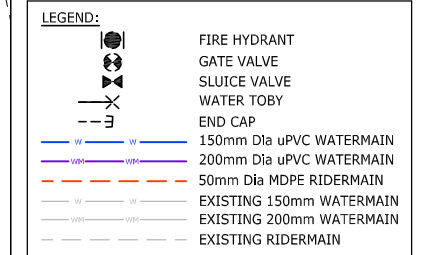
WATERMAIN FITTING COORDINATE TABLE		
Fitting	mN	mE
GV 2	819029.92	407283.56
GV 3	819032.67	407258.65
GV 8	819040.11	407429.32
GV 9	819227.42	407360.32
FH 1	819078.05	407361.58
SV 1	819043.78	407299.24
SV 2	819023.29	407295.91
SV 3	819144.28	407308.11



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NOTE:

1. All dimensions are shown in metres unless otherwise stated.
2. All valves and hydrants installed by November 2007.
3. All pipe diameters are nominal bore.

WARNING: Levels, locations and dimensions of water services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



A	INITIAL RELEASE	NDH	
REF	AMENDMENT	BY	DATE

PROJECT:	
----------	--

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGES 6A & 6B

TITLE:

WATER RETICULATION
AS BUILT PLANS
SHEET 1 OF 3

DESIGNED: KDI	DATE: 10/2007	SIGNATURE:	PLOT DATE: 16/04/2008
DRAWN: NDH	DATE: 16/04/2008	SIGNATURE:	CAD REF: 000633-6-AB500
CHECKED: GAW/JMS	DATE: 16/04/2008	SIGNATURE:	CAD XREF:
APPROVED: PWW	DATE:	SIGNATURE:	SURVEY BY: GMB
			SURVEY DATE: 11/2007
			SDR REF:

PLOT STATUS:

PRELIMINARY / DRAFT

PROJECT No: 1850-000633-01	SCALES: 1:500 @ A1 1:1000 @ A3	A1
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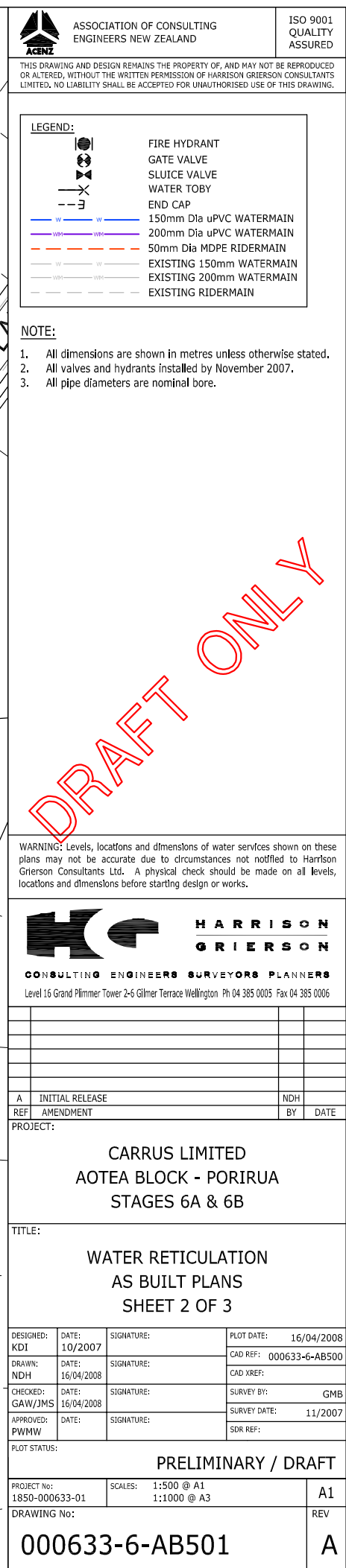
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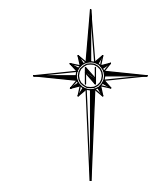
000633-6-AB500

REV

A

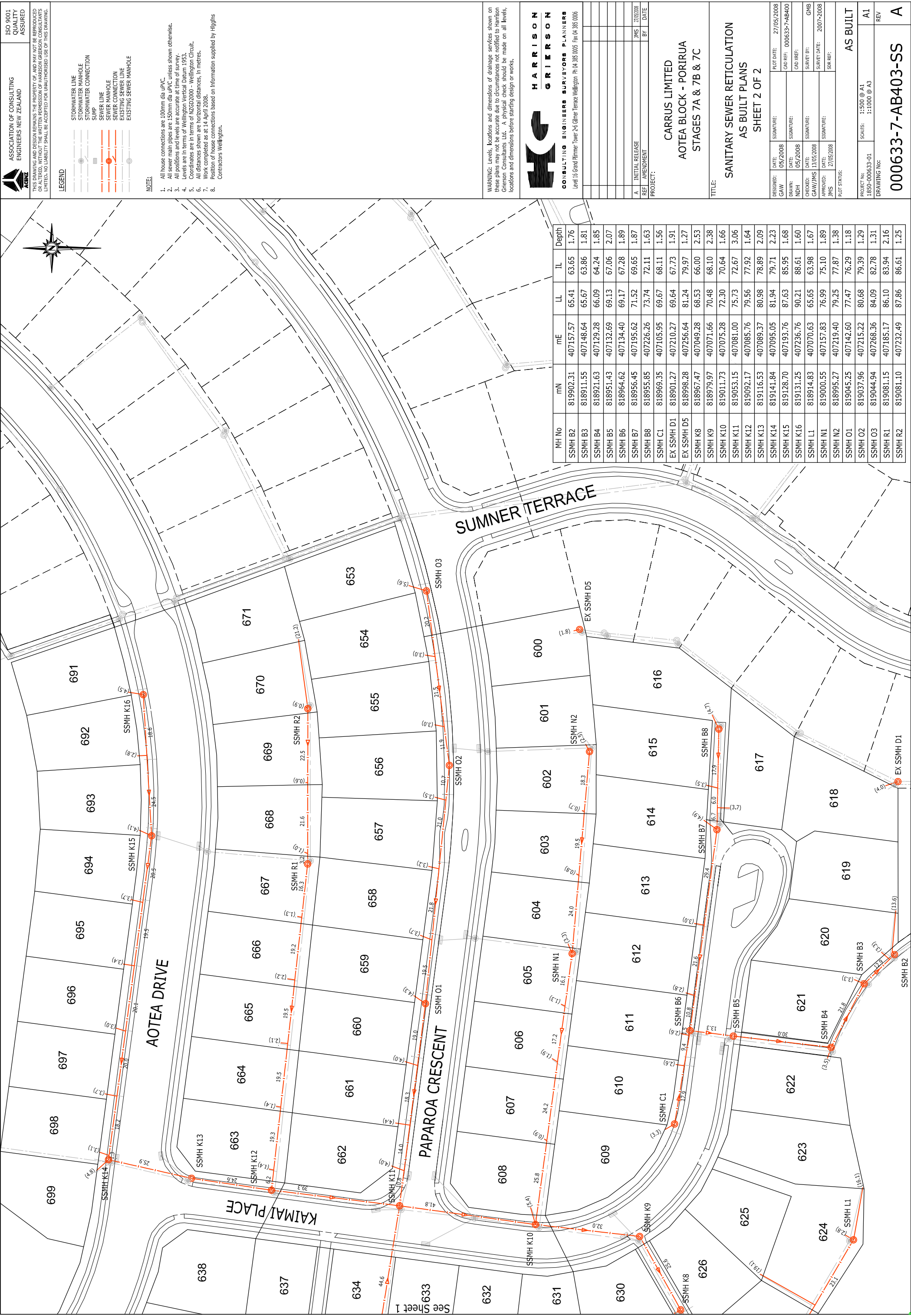
WATERMAIN FITTING COORDINATE TABLE		
Fitting	mN	mE
GV 2	819029.92	407283.56
GV 3	819032.67	407258.65
GV 4	818966.99	407305.37
GV 5	818888.98	407254.07
GV 6	818886.35	407239.99
GV 8	819040.11	407429.32
FH 1	819078.05	407361.58
FH 2	818998.43	407302.91
SV 1	819043.78	407299.24
SV 2	819023.29	407295.91






Fitting	mN	mE
GV 4	818966.99	407305.37
GV 5	818888.98	407254.07
GV 6	818886.35	407239.99
GV 7	818770.43	407308.86
FH 3	818843.53	407268.20
FH 4	818771.76	407308.91

DRAFT ONLY





ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED

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LEGEND

- STORMWATER LINE
- STORMWATER MANHOLE
- STORMWATER CONNECTION
- SEWER LINE
- SEWER MANHOLE
- SEWER CONNECTION
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE

NOTES:

- All house connections are 100mm dia uPVC.
- All sewer main pipes are 150mm dia uPVC unless shown otherwise.
- All positions and levels are accurate at time of survey.
- Levels are in terms of Wellington Vertical Datum 1953.
- Coordinates are in terms of NZGD2000 - Wellington Circuit.
- All distances shown are horizontal distances, in metres.
- Work completed as at 14 April 2008.
- Position of house connections based on information supplied by Higgins Contractors Wellington.

WARNING: Levels, locations and dimensions of drainage services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierison Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



HARRISON GRIERSON
CONSULTING ENGINEERS SURVEYORS PLANNERS
Level 15 Grand Pinnacle Tower 245 Giffner Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

A	INITIAL RELEASE	JMS	27/05/2008
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGES 7A & 7B & 7C

TITLE:

SANITARY SEWER RETICULATION
AS BUILT PLANS
SHEET 2 OF 2

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
GAW	05/2008		27/05/2008
DRAWN:	DATE:	SIGNATURE:	CAD REF:
NDH	05/2008		000633-7-AB400
CHECKED:	DATE:	SIGNATURE:	CAD REF:
GAW/JMS	13/05/2008		
APPROVED:	DATE:	SIGNATURE:	SURVEY DATE:
JMS	27/05/2008		2007-2008
			SRF REF:

PLOT STATUS:

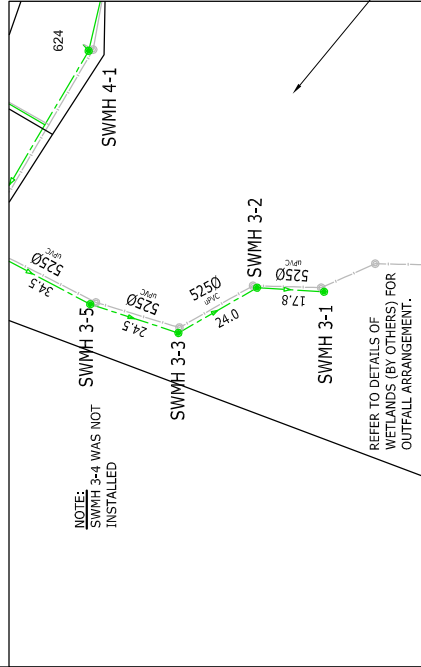
AS BUILT

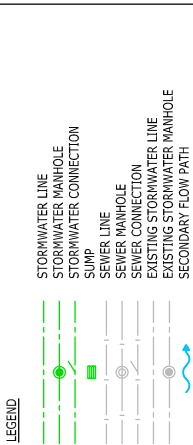
PROJECT NO:	1850-000633-01	SCALES:	1:500 @ A1 1:1000 @ A3
DRAWING No:			

000633-7-AB403-SS

REV
A

MH No	mN	mE	LL	IL	Depth
SWMH 2-4	818921.23	407127.96	66.03	64.26	1.77
SWMH 2-5	818952.76	407131.88	69.06	67.37	1.89
SWMH 2-6	818963.70	407133.53	69.15	67.30	1.85
SWMH 2-7	818955.48	407197.23	71.59	69.79	1.80
SWMH 3-1	818853.78	407006.57	25.36	23.18	2.18
SWMH 3-2	818871.51	407007.64	36.50	34.52	1.98
SWMH 3-3	818892.29	406995.66	44.06	42.20	1.86
SWMH 3-5	818915.60	407003.27	51.40	49.56	1.84
SWMH 3-6	818946.18	407019.36	65.25	62.23	3.02
SWMH 3-7	818954.70	407028.98	66.20	63.88	2.32
SWMH 3-8	818967.60	407047.93	68.46	65.88	2.58
SWMH 3-9	818980.23	407070.28	70.55	67.90	2.65
SWMH 3-10	819010.63	407074.37	72.17	70.54	1.63
SWMH 3-11	819030.32	407077.24	73.90	71.64	2.26
SWMH 3-12	819052.68	407079.84	75.72	72.83	2.89
SWMH 3-13	819091.25	407084.91	79.51	77.89	1.62
SWMH 3-14	819117.62	407088.62	80.98	78.96	2.02
SWMH 3-15	819141.13	407094.11	81.82	79.67	2.15
SW INLET 3-16	819187.26	407100.47	—	83.76	—
SWMH 7-1	819059.32	407035.80	76.03	73.28	2.75
SWMH 7-2	819097.38	407038.48	76.99	73.50	3.49
SWMH 7-3	819084.27	407012.88	75.61	73.81	1.80
SWMH 7-4	819099.27	407014.78	75.87	74.01	1.86
SWMH 7-5	819110.20	407012.00	76.09	74.08	2.01
SWMH 7-6	819114.10	407003.13	75.99	74.24	1.75
SWMH 7-7	819130.17	407011.51	77.29	74.52	2.77
SWMH 7-8	819150.40	407021.88	78.45	76.63	1.82
SWMH 7-9	819001.67	407028.53	70.14	67.82	2.32
SWMH 18-1	819020.73	407029.46	71.72	70.00	1.72
SWMH 18-2	818916.02	407070.30	65.69	63.95	1.74
SWMH 4-1	818999.22	407158.42	76.97	75.17	1.80
SWMH 5-1	819030.12	407162.50	78.42	77.00	1.42
SWMH 6-1	819039.71	407040.75	78.37	76.79	1.58
SWMH 8-1	819080.33	407186.14	86.01	83.99	2.02
SWMH 9-1	819111.68	407188.92	87.43	85.70	1.73
SWMH 10-1	819126.80	407193.75	87.39	-	-
SUMP 1	819114.25	407190.57	87.28	-	-
SUMP 2	819139.37	407095.43	81.72	-	-
SUMP 3	819125.82	407096.19	81.80	-	-
SUMP 4	819160.90	407032.83	78.31	-	-
SUMP 5	819150.50	407025.72	78.42	-	-
SUMP 6	819079.28	407032.33	76.72	-	-
SUMP 7	819060.39	407079.70	76.45	-	-
SUMP 8	819045.22	407069.36	74.92	-	-
SUMP 9	819042.54	407090.12	75.08	-	-
SUMP 10	819050.29	407090.18	75.05	-	-
SUMP 11	819040.73	407162.01	78.06	-	-
SUMP 12	819032.94	407163.61	78.17	-	-
SUMP 13	818988.11	407078.49	70.51	-	-
SUMP 16	818984.54	407071.69	70.57	-	-
SUMP 17	818956.47	407032.07	66.55	-	-
SUMP 18	818954.72	407129.40	68.87	-	-
DBL SUMP 19	818961.96	407132.45	68.87	-	-
DBL SUMP 20	818955.73	407199.32	71.60	-	-





NOTE:

1. All house connections are 100mm dia uPVC.
2. All single pump leads are 25mm dia uPVC.
3. All double pump leads are 33mm dia uPVC.
4. All positions and levels are accurate at time of survey.
5. Levels are in terms of Wellington Vertical Datum 1953.
6. Coordinates are in terms of NZGD2000 - Wellington Circuit.
7. Work completed as at 14 April 2008.
8. Position of house connections based on information supplied by Highbills Contractors Wellington.
9. All distances shown are horizontal distances, in metres.

STORMWATER LINE - PIPE MATERIALS:
(unless shown otherwise)

150 dia - uPVC
225 dia - uPVC
300 dia - uPVC
450 dia - RCRRJ Class X
525 dia - RCRRJ Class X

WARNING: Levels, locations and dimensions of drainage services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



CONSULTING ENGINEERS SURVEYORS PLANNERS
Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

A	INITIAL RELEASE	JMS	27/05/2008
REF	AMENDMENT	BY	DATE
PROJECT:			

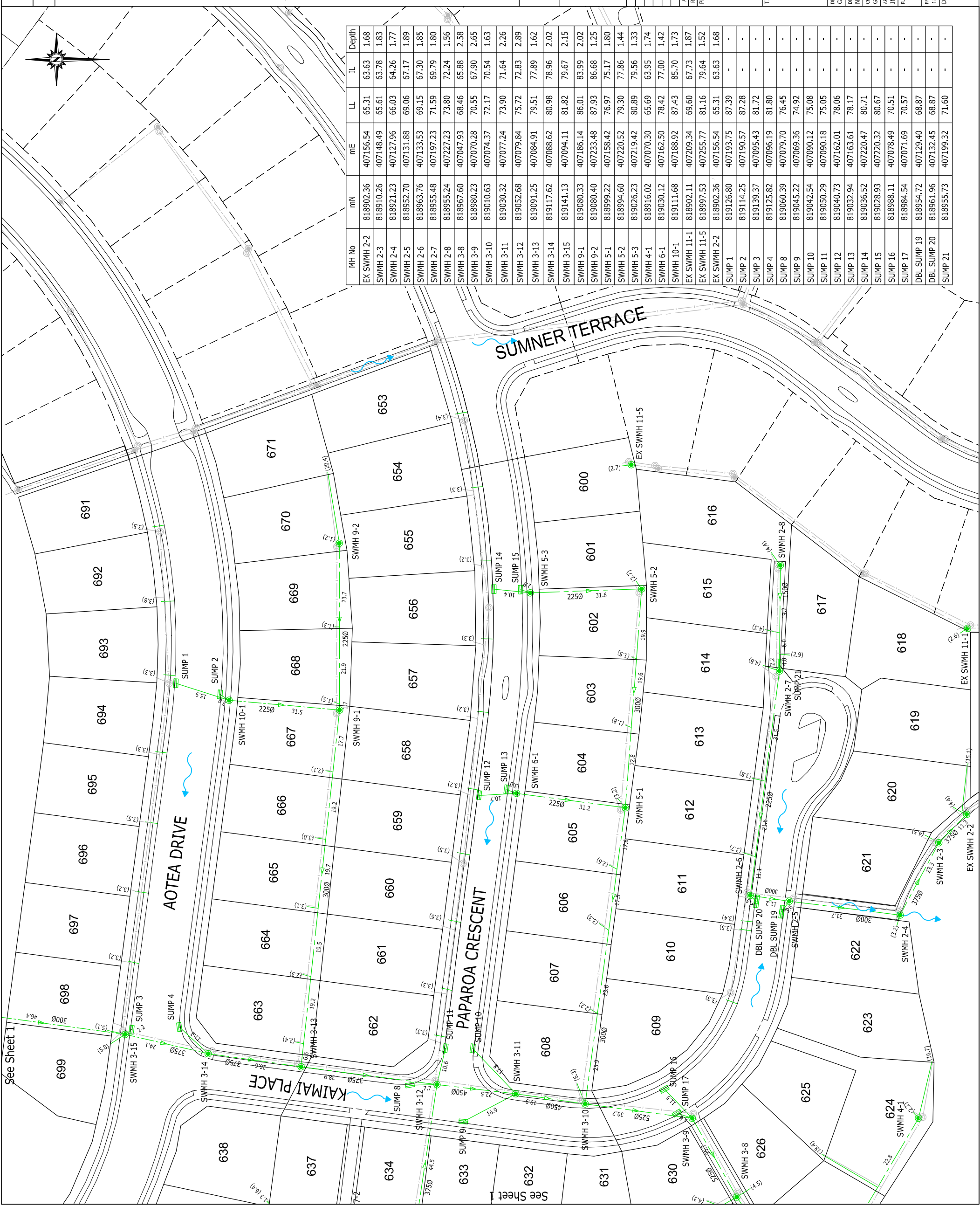
CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGES 7A & 7B & 7C

STORMWATER RETICULATION
AS BUILT PLANS
SHEET 2 OF 2

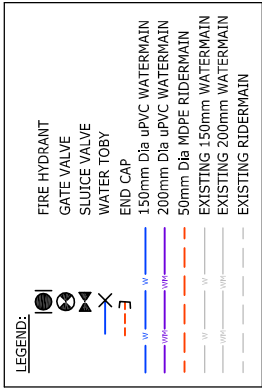
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RECORDED: JMS	DATE: 13/05/2008	SIGNATURE:	CAD XREF:
AW/JMS		SIGNATURE:	SURVEY BY: GMB
PROVED: JMS	DATE: 27/05/2008	SIGNATURE:	SURVEY DATE: 2007-2008
			SUR REF:

PROJECT No:	SCALES: 1:500 @ A1	AS BUILT
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000633-7-AB401-SW



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NOTE:

1. All dimensions are shown in metres unless otherwise stated.
2. All valves and hydrants installed by November 2007.
3. All pipe diameters are nominal bore.

WARNING: Levels, locations and dimensions of water services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



CONSULTING ENGINEERS SURVEYORS PLANNERS
Level 16 Grant Plimmer Tower 2-6 Glimmer Terrace Wellington Ph 04 395 0005 Fax 04 395 0006

A	INITIALS
REF	AME

PROJECT:

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGES 7A, 7B & 7C

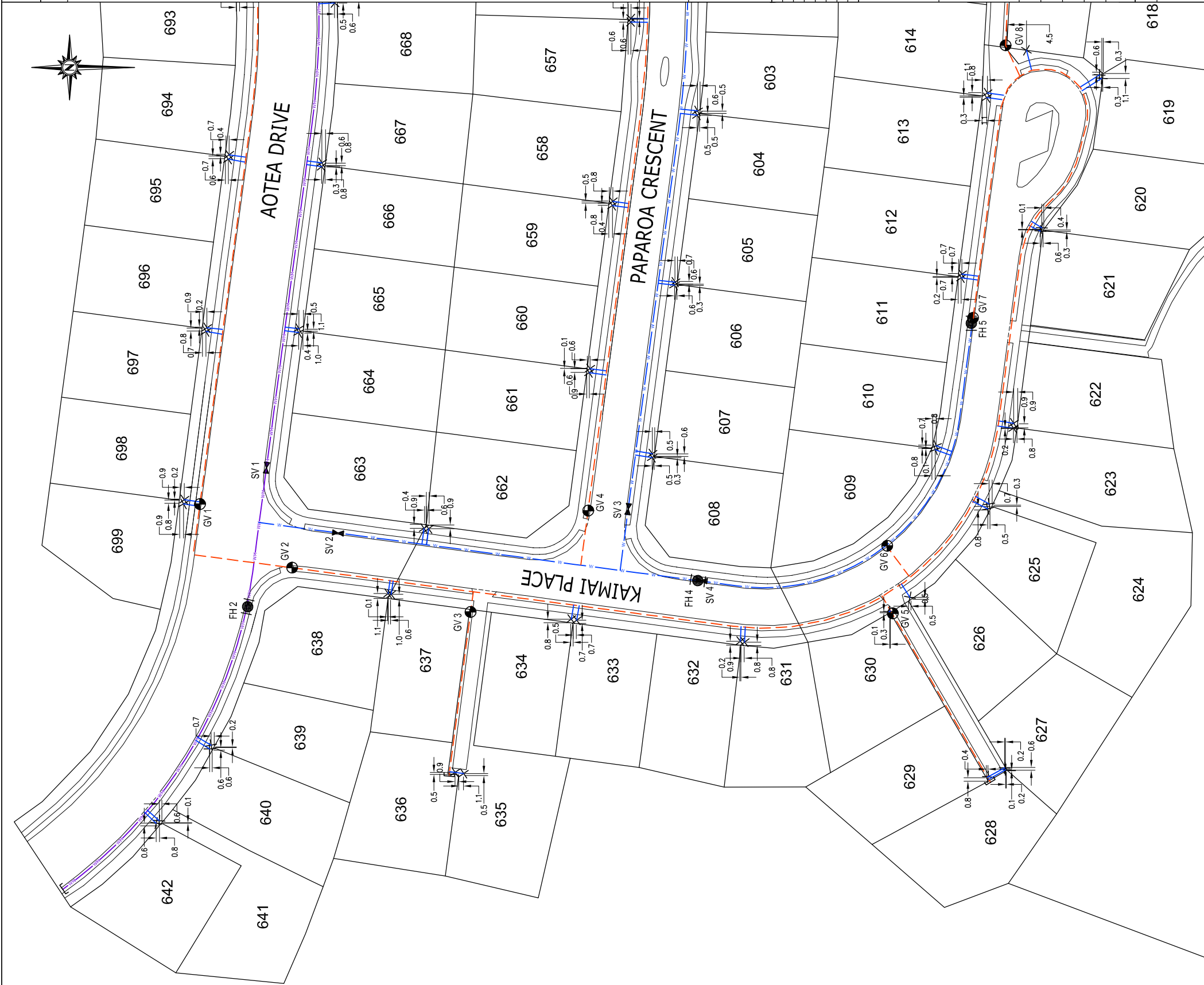
FILE:

WATER RETICULATION
AS BUILT PLANS
SHEET 1 OF 2

SIGNED:	DATE:	SIGNATURE:		PILOT DATE:	27/05/2008
JI	05/2007			CAD REF:	0006337-AB500
		SIGNATURE:		CAD XREF:	
	05/2008				
FEEDBACK:	DATE:	SIGNATURE:		SURVEY BY:	GMB
RAW/JMS	13/05/2008			SURVEY DATE:	27/05/2008
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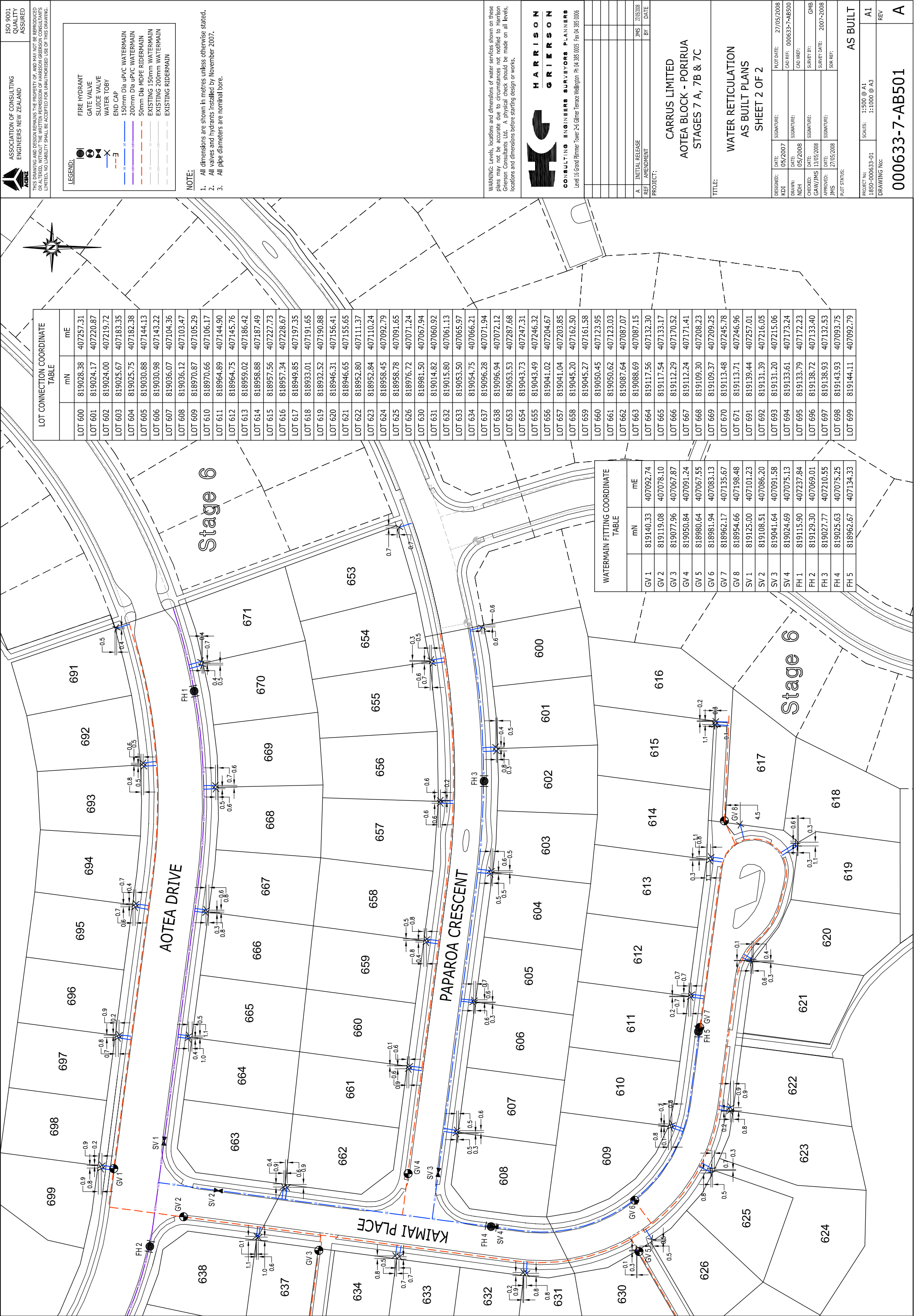
ACREDITATION


PROJECT No:	1:500 @ A1 1:1000 @ A3	A1
DRAWING No:		REV



WATERMAIN FITTING COORDINATE TABLE			
		mN	mE
GV 1		819140.33	407092.74
GV 2		819119.08	407078.10
GV 3		819077.96	407067.87
GV 4		819050.84	407091.24
GV 5		818980.64	407067.55
GV 6		818981.94	407083.13
GV 7		818962.17	407135.67
GV 8		818954.66	407198.48
SV 1		819125.00	407101.23
SV 2		819108.51	407086.20
SV 3		819041.64	407091.58
SV 4		819024.69	407075.13
FH 2		819129.30	407069.01
FH 4		819025.63	407075.25
FH 5		818962.67	407134.33

LOT CONNECTION COORDINATE			TABLE	
	mN	mE		
LOT 603	819025.67	407183.35		
LOT 604	819025.75	407182.38		
LOT 605	819030.88	407144.13		
LOT 606	819030.98	407143.22		
LOT 607	819036.07	407104.36		
LOT 608	819036.12	407103.47		
LOT 609	818970.87	407105.29		
LOT 610	818970.66	407106.17		
LOT 611	818964.89	407144.90		
LOT 612	818964.75	407145.76		
LOT 613	818959.02	407186.42		
LOT 614	818958.88	407187.49		
LOT 618	818933.01	407191.65		
LOT 619	818932.52	407190.88		
LOT 620	818946.31	407156.41		
LOT 621	818946.65	407155.65		
LOT 622	818952.80	407111.37		
LOT 623	818952.84	407110.23		
LOT 624	818958.45	407092.79		
LOT 625	818958.78	407091.65		
LOT 626	818976.72	407071.24		
LOT 627	818954.86	407031.93		
LOT 628	818954.65	407031.54		
LOT 629	818958.72	407029.87		
LOT 630	818981.50	407067.94		
LOT 631	819014.82	407060.92		
LOT 632	819015.80	407061.13		
LOT 633	819053.50	407065.97		
LOT 634	819054.75	407066.21		
LOT 635	819079.55	407030.64		
LOT 636	819081.52	407030.90		
LOT 637	819096.28	407071.94		
LOT 638	819096.94	407072.12		
LOT 639	819137.75	407037.16		
LOT 640	819138.10	407036.33		
LOT 641	819149.70	407019.76		
LOT 642	819150.44	407019.18		
LOT 657	819041.04	407023.85		
LOT 658	819045.20	407162.50		
LOT 659	819045.27	407161.58		
LOT 660	819050.45	407123.95		
LOT 661	819050.62	407123.03		
LOT 662	819087.64	407087.07		
LOT 663	819088.69	407087.15		
LOT 664	819117.56	407132.30		
LOT 665	819117.54	407133.17		
LOT 666	819112.29	407170.52		
LOT 667	819112.24	407171.41		
LOT 668	819109.30	407208.23		
LOT 694	819133.61	407173.24		
LOT 695	819133.79	407172.23		
LOT 696	819138.72	407132.40		
LOT 697	819138.93	407133.53		
LOT 698	819143.93	407093.75		
LOT 699	819144.11	407027.79		





ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001
QUALITY
ASSURED

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LEGEND:

- FIRE HYDRANT
- GATE VALVE
- SLUICE VALVE
- WATER TORY
- END CAP
- 150mm Dia UPVC WATERMAIN
- 200mm Dia UPVC WATERMAIN
- 50mm Dia MDPE WATERMAIN
- EXISTING 150mm WATERMAIN
- EXISTING 200mm WATERMAIN
- EXISTING RIDERMAIN

NOTE:

- All dimensions are shown in metres unless otherwise stated.
- All valves and hydrants installed by November 2007.
- All pipe diameters are nominal bore.

WARNING: Levels, locations and dimensions of water services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierison Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



**HARRISON
GRIERSON**
CONSULTING ENGINEERS SURVEYORS PLANNERS

Level 15 Grand Plimmer Tower 245 Giffner Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

A	INITIAL RELEASE	JMS	27/05/2008
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGES 7 A, 7B & 7C

TITLE:

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
KDI	05/2007		27/05/2008
DRAWN:	DATE:	SIGNATURE:	CAD REF:
NDH	05/2008		000633-7-AB500
CHECKED:	DATE:	SIGNATURE:	CAD REF:
GAW/JMS	13/05/2008		
APPROVED:	DATE:	SIGNATURE:	SURVEY DATE:
JMS	27/05/2008		2007-2008
PLOT STATUS:			SRF REF:

AS BUILT

PROJECT NO:	1:500 @ A1
1850-000633-01	1:1000 @ A3
DRAWING No:	

000633-7-AB501

A