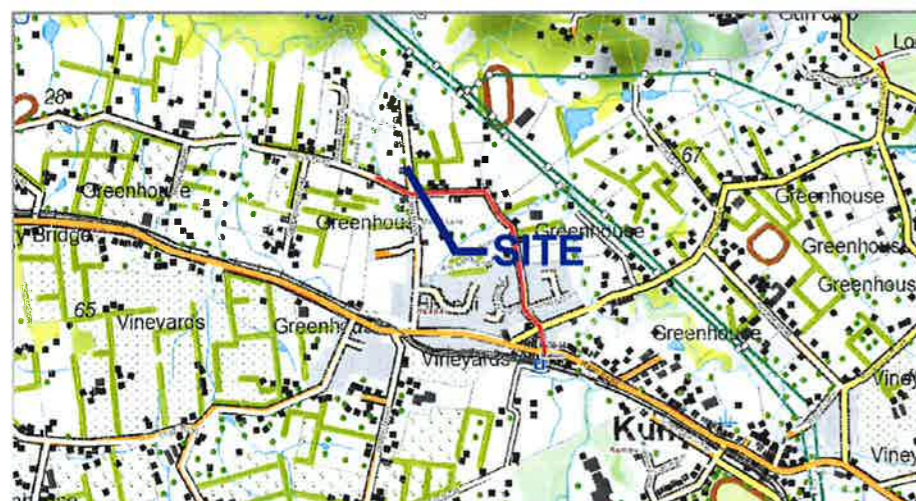
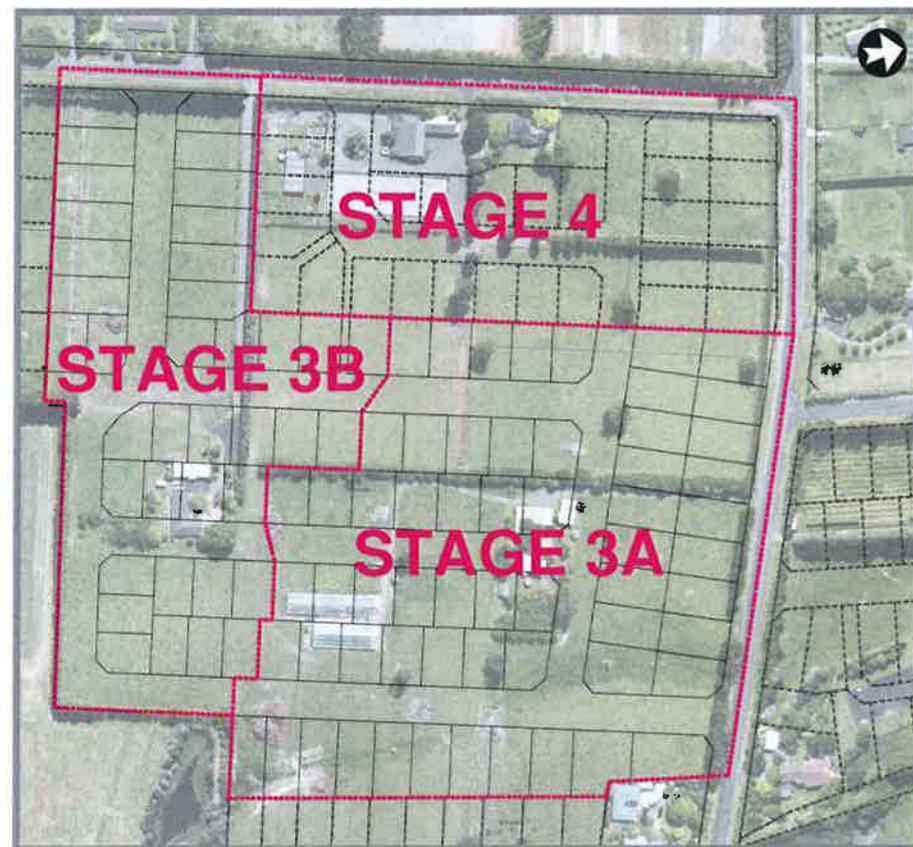


**CABRA DEVELOPMENTS LTD.
MATUA RESIDENTIAL ESTATE
179 MATUA ROAD, HUAPAI
STAGE 3B AS BUILT PLANS
(RELEASE STAGES 10, 11 & 12)**



LOCALITY PLAN

DRAWINGS - 17550AB STAGE 3B

GENERAL (GE)

- GE-001 COVER
- GE-002 AS BUILT LOT LAYOUT PLAN

EARTHWORKS (EW)

- EW-101 EXISTING SITE PLAN
- EW-102 AS BUILT CONTOUR PLAN
- EW-103 AS BUILT DEPTH CONTOUR PLAN

ROADING (RD)

- RD-201 AS BUILT ROADING PLAN
- RD-202 AS BUILT TYPICAL ROAD CROSS SECTIONS

STORMWATER (SW)

- SW-301 AS BUILT STORMWATER MANHOLE DEATILS
- SW-302 AS BUILT STORMWATER PIPE PIPE AND CESSPIT DETAILS

WASTEWATER (WW)

- WW-401 AS BUILT WASTEWATER PLAN

WATER SUPPLY (WS)

- WS-501 AS BUILT WATERMAIN PLAN

**17550AB GE-001 (3B)
NOVEMBER 2015**



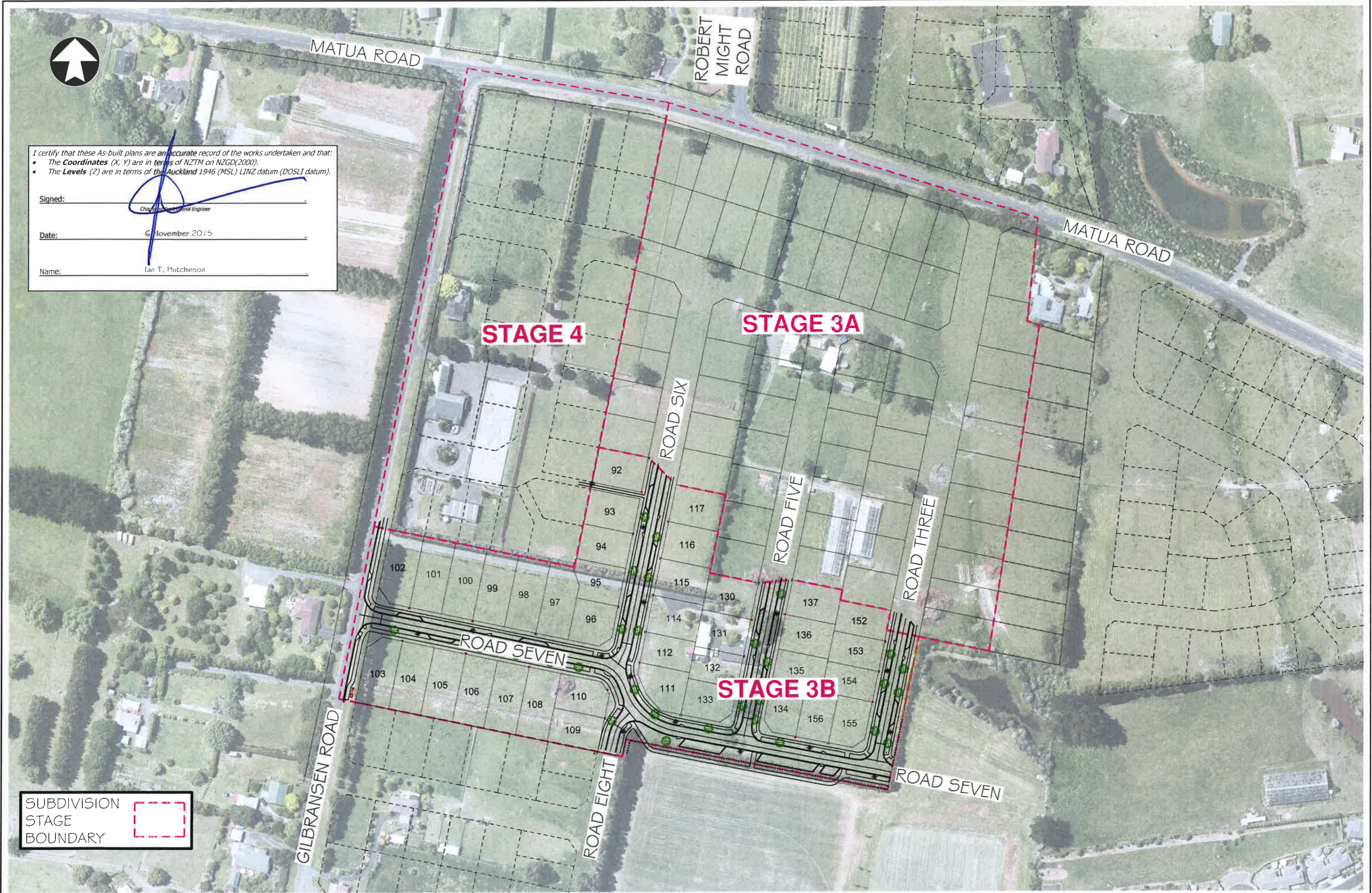
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- The **Coordinates** (X, Y) are in terms of NZTM on NZGD(2000).
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum).

Signed: _____
Chartered Professional Engineer

Date: 6 November 2015

Name: Ian T. Hutchinson



SUBDIVISION
 STAGE
 BOUNDARY

No.	Revision	Drawn	Chk.	Appd.	Date

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Design	S. MARSHALL	04/11/2015
Drawn	N. DOUGLAS	05/11/2015
Checked	I. H. HUTCHINSON	06/11/2015
Approved		
Scale	1:2000 @ A3	
Scale vert. exag.		

Matua Residential Estate
 HUAPAI

Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 3B
179 MATUA ROAD, HUAPAI

Title
AS BUILT LOT LAYOUT PLAN
STAGE 3B

Job No.
17550AB

Sheet No.
GE-002



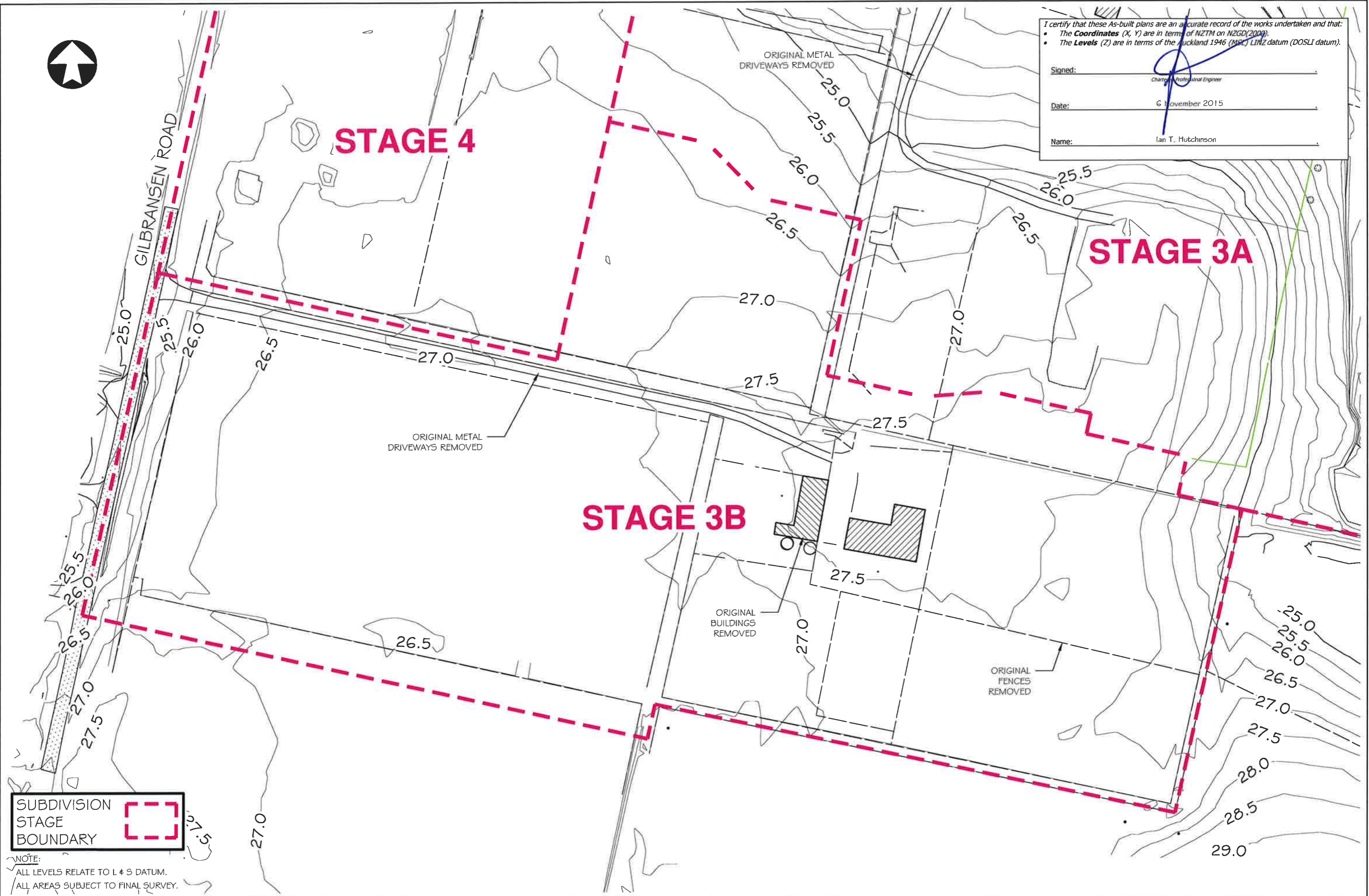
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Signed: _____
Chartered Professional Engineer

Date: 6 November 2015

Name: Ian T. Hutchinson



SUBDIVISION
 STAGE
 BOUNDARY

NOTE:
 ALL LEVELS RELATE TO L & S DATUM.
 ALL AREAS SUBJECT TO FINAL SURVEY.

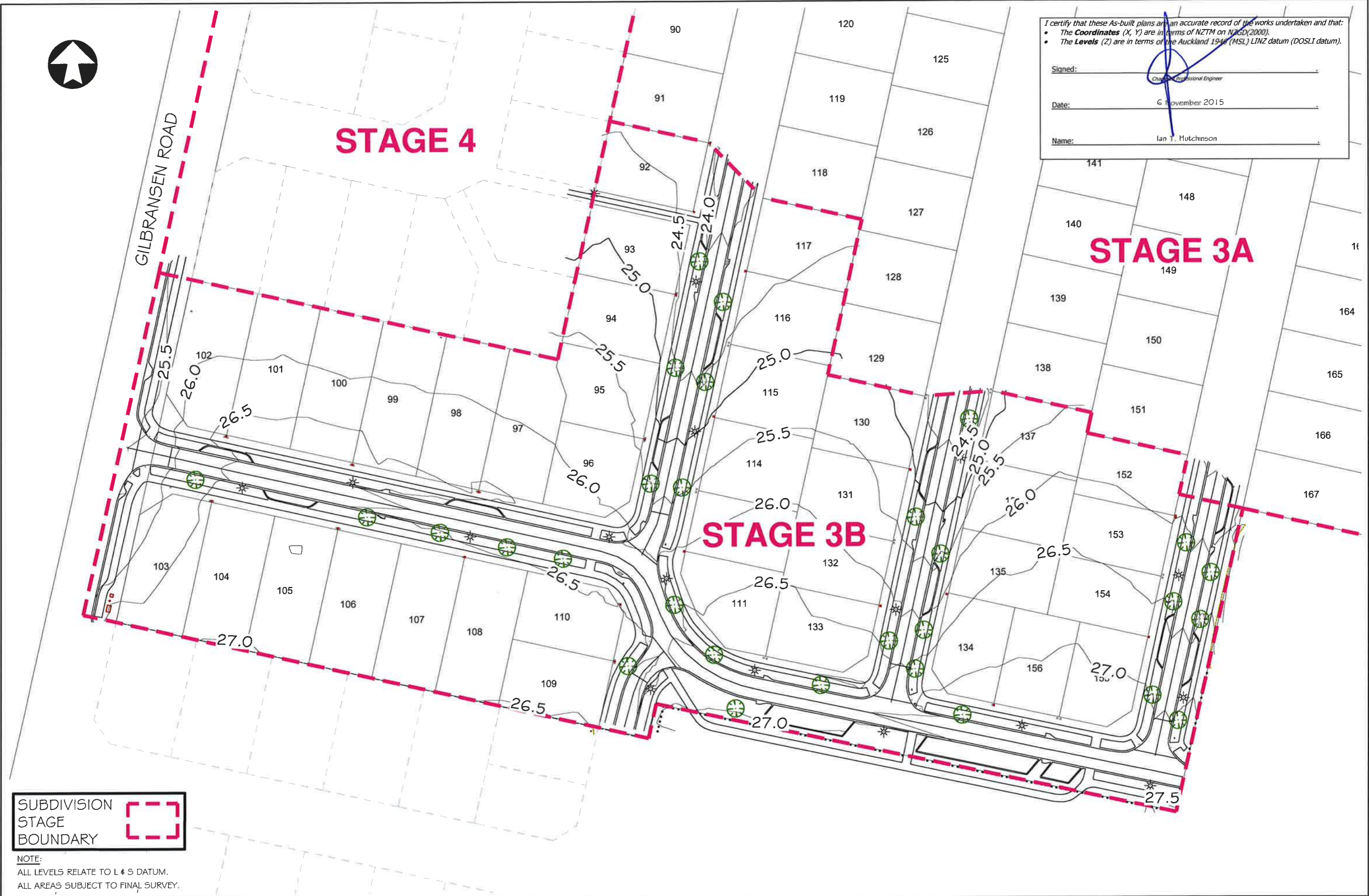
					 Hutchinson <small>CONSULTING ENGINEERS</small> PO Box 150, Orewa 0946 154 Centreway Road, Orewa 0931 Ph: 09 426 5702 www.hc.co.nz	Design Drawn S. MARSHALL 04/11/2015 Checked N. DOUGLAS 05/11/2015 Approved I. H. HUTCHINSON 06/11/2015 Scale 1:1000 @ A3 Scale vert. exag.	 Matua Residential Estate <small>HUAPAI</small>	Project CABRA DEVELOPMENTS LTD MATUA RESIDENTIAL ESTATE STAGE 3B 179 MATUA ROAD, HUAPAI	Title ORIGINAL CONTOUR PLAN	Sheet No. EW-101
No.	Revision	Drawn	Chk.	Appd.						



I certify that these As-built plans are an accurate record of the works undertaken and that:

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SUBDIVISION
STAGE
BOUNDARY

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Scale vert. exag.		

Matua Residential Estate
HUAPAI

Project
**CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 3B
179 MATUA ROAD, HUAPAI**

Title
AS BUILT CONTOUR PLAN

Job No.
17550AB

Sheet No.
EW-102



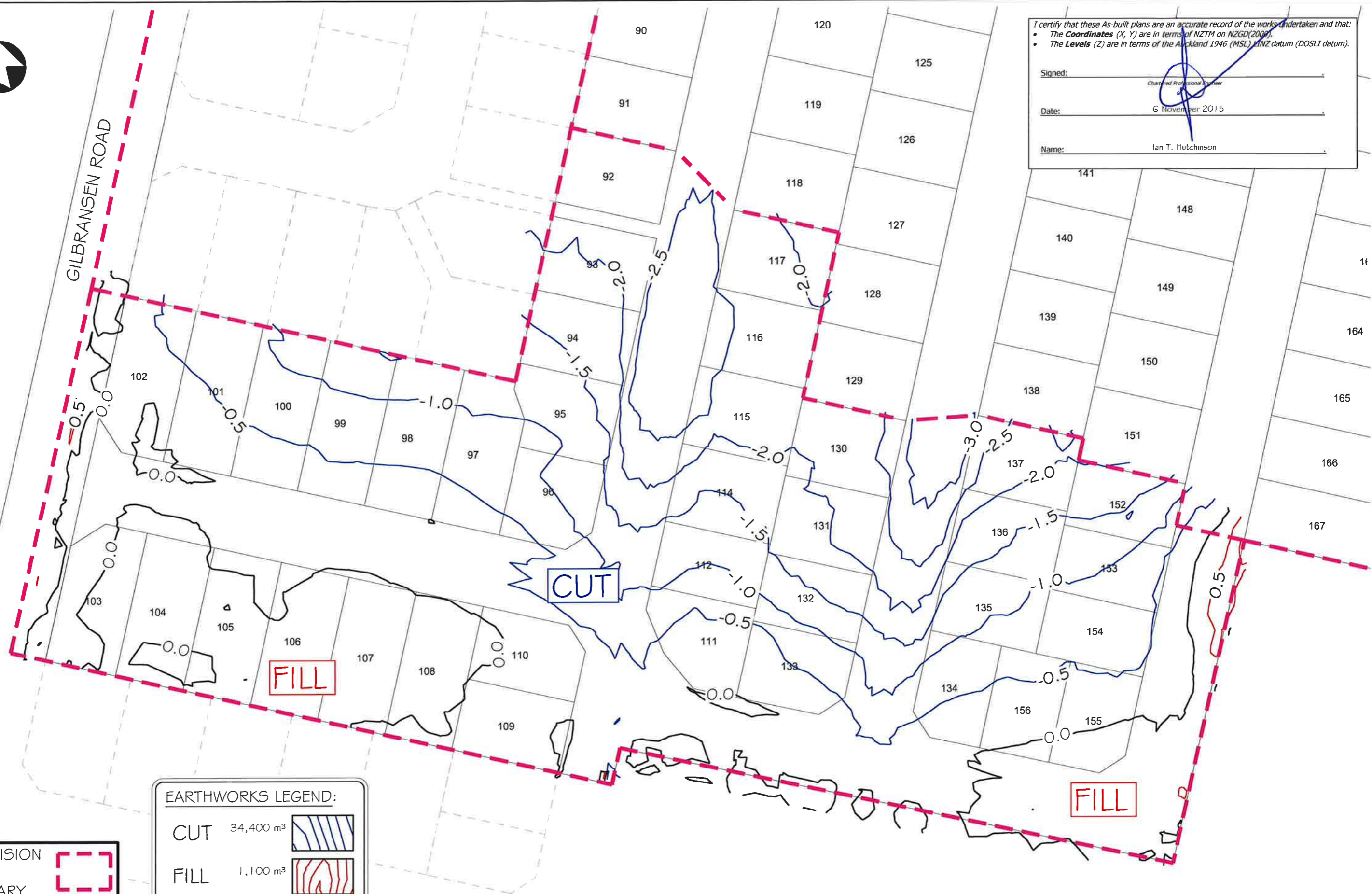
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Chartered Professional Engineer

Date: _____ 6 November 2015

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SUBDIVISION
STAGE
BOUNDARY

NOTE:
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EARTHWORKS LEGEND:

CUT 34,400 m³

FILL 1,100 m³

EARTH WORKS AREA 3.93 Ha
CONTOUR INTERVAL = 0.5m

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Approved		
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Scale vert. exag.		



Project
**CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 3B
179 MATUA ROAD, HUAPAI**

Title
AS BUILT DEPTH CONTOUR PLAN

Job No.
17550AB

Sheet No.
EW-103



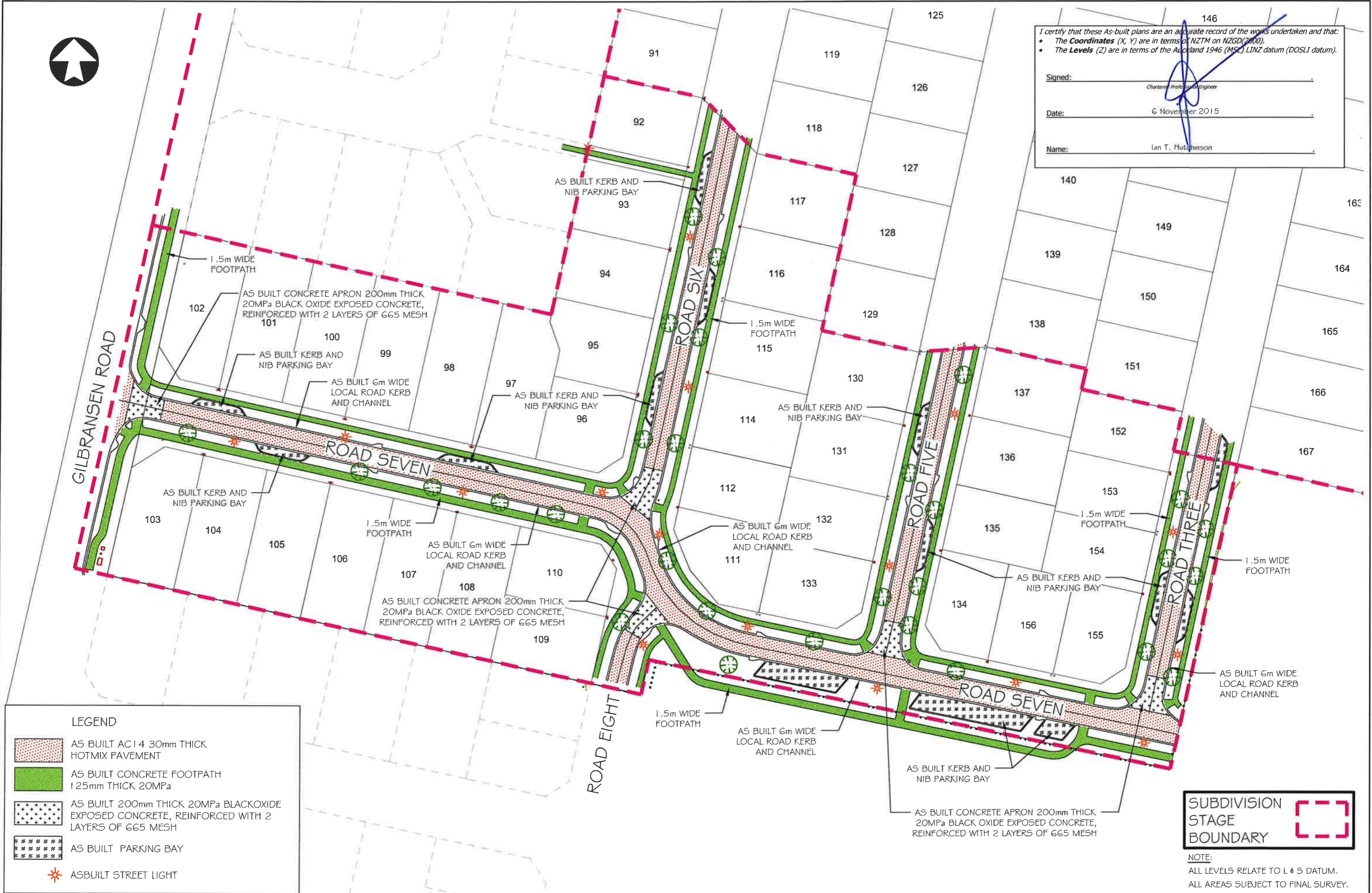
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Signed: _____
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LEGEND

- AS BUILT AC 14 30mm THICK HOTMIX PAVEMENT
- AS BUILT CONCRETE FOOTPATH 125mm THICK 20MPa
- AS BUILT 200mm THICK 20MPa BLACKOXIDE EXPOSED CONCRETE, REINFORCED WITH 2 LAYERS OF G65 MESH
- AS BUILT PARKING BAY
- ASBUILT STREET LIGHT

SUBDIVISION STAGE BOUNDARY

NOTE:
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Scale vert. exag.		

Matua Residential Estate
HUAPAI

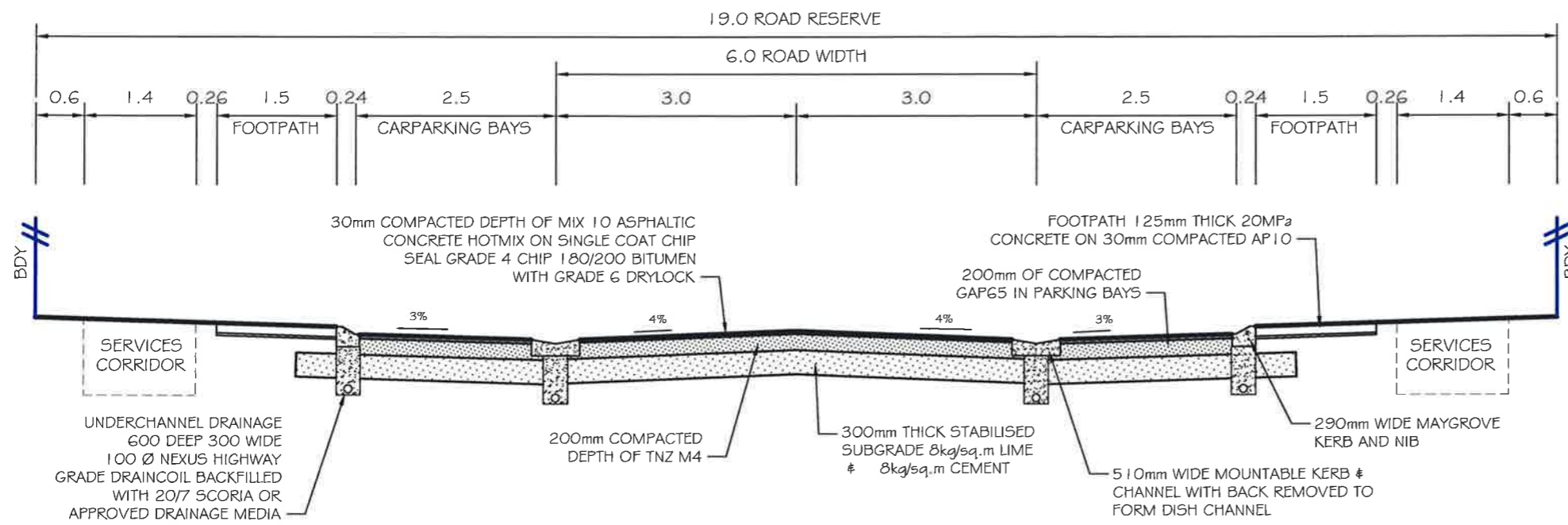
Project
**CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 3B
179 MATUA ROAD, HUAPAI**

Title
AS BUILT ROADING PLAN

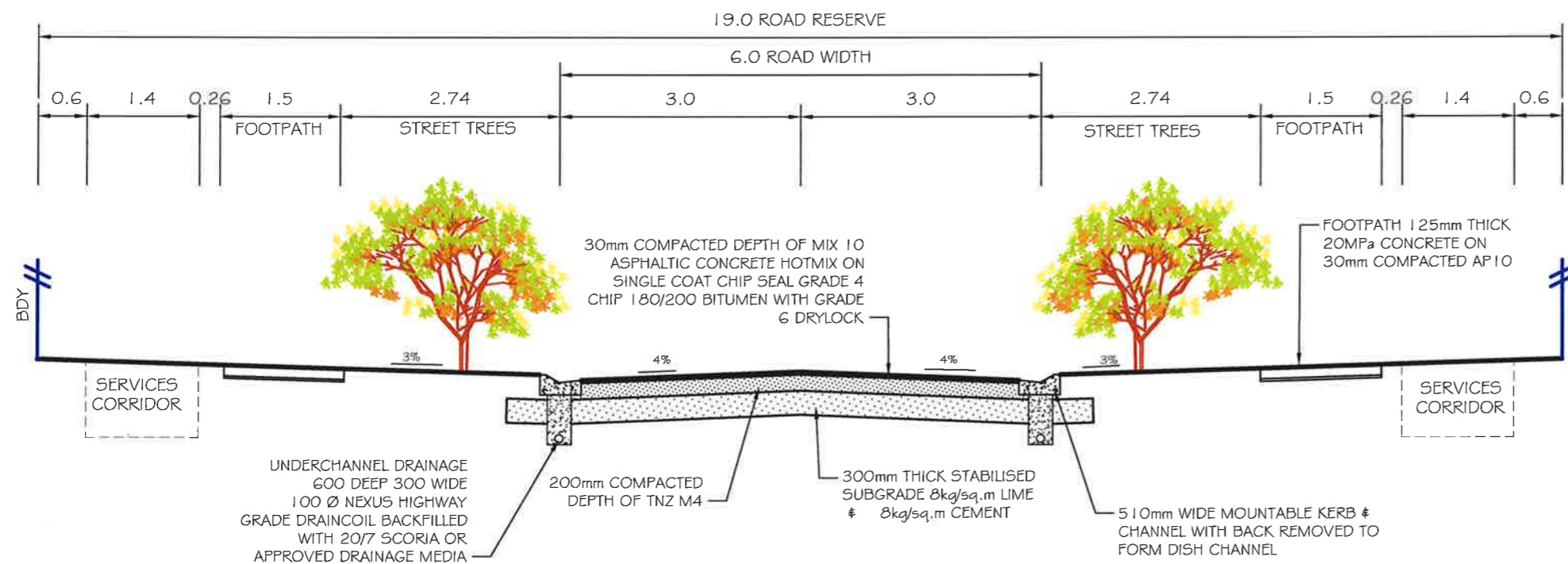
Job No.
17550AB

Sheet No.
RD-201

ROAD NAME	ROAD TYPE	CYCLEWAY LOCATION
MATUA ROAD	6.5m WIDE COLLECTOR/ NEIGHBOURHOOD ROAD IN 20m WIDE RESERVE	NORTHERN (BY OTHERS)
GILBRANSEN ROAD	6.5m WIDE COLLECTOR/ NEIGHBOURHOOD ROAD IN 20m WIDE RESERVE	WESTERN (BY OTHERS)
ROADS THREE, FOUR, FIVE & SIX	6.0m WIDE LOCAL/GREENWAY ROAD IN 19m WIDE RESERVE	N/A
ROAD SEVEN	6.5m WIDE COLLECTOR/ NEIGHBOURHOOD ROAD IN 20m WIDE RESERVE	SOUTHERN
ROAD EIGHT	6.0m WIDE LOCAL/GREENWAY ROAD IN 15m WIDE RESERVE	N/A



TYPICAL AS BUILT 6.0m WIDE ROAD WITH 19.0m ROAD RESERVE - LOCAL / GREENWAY ROAD WITH PARKING
SCALE 1:75 @ A3



TYPICAL AS BUILT 6.0m WIDE ROAD WITH 19.0m ROAD RESERVE - LOCAL / GREENWAY ROAD WITHOUT PARKING
SCALE 1:75 @ A3

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 Date: 6 November 2015
 Name: Ian T. Hutchinson

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<p>Hutchinson CONSULTING ENGINEERS</p> <p>PO Box 150, Orewa 0946 154 Centreway Road, Orewa 0931 Ph: 09 426 5702 www.hc.co.nz</p>	Design	-	-
	Drawn	S. MARSHALL	04/11/2015
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	Scale	1:75 @ A3	
	Scale vert. exag.		



Project	CABRA DEVELOPMENTS LTD MATUA RESIDENTIAL ESTATE STAGE 3B 179 MATUA ROAD, HUAPAI
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Title	AS BUILT TYPICAL ROAD CROSS SECTIONS
Job No.	17550AB

Sheet No.	RD-202
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LEGEND

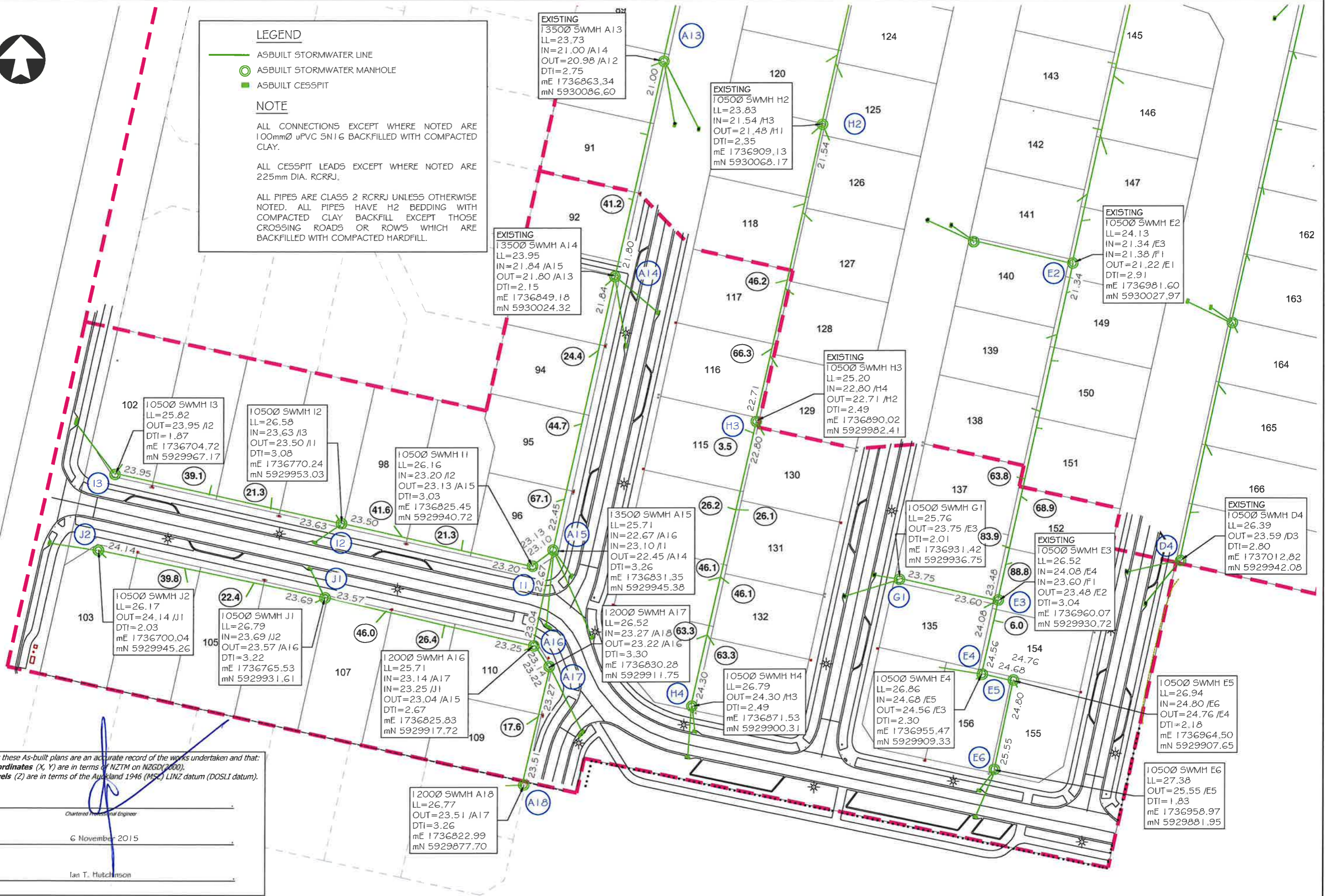
- ASBUILT STORMWATER LINE
- ASBUILT STORMWATER MANHOLE
- ASBUILT CESSPIT

NOTE

ALL CONNECTIONS EXCEPT WHERE NOTED ARE 100mmØ uPVC SNI 6 BACKFILLED WITH COMPACTED CLAY.

ALL CESSPIT LEADS EXCEPT WHERE NOTED ARE 225mm DIA. RCRRJ.

ALL PIPES ARE CLASS 2 RCRRJ UNLESS OTHERWISE NOTED. ALL PIPES HAVE H2 BEDDING WITH COMPACTED CLAY BACKFILL EXCEPT THOSE CROSSING ROADS OR ROWS WHICH ARE BACKFILLED WITH COMPACTED HARDFILL.



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Scale vert. exag.		



Project
**CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 3B
179 MATUA ROAD, HUAPAI**

Title
**AS BUILT STORMWATER
MANHOLE DETAILS**

Job No.
17550AB

Sheet No.
SW-301



LEGEND

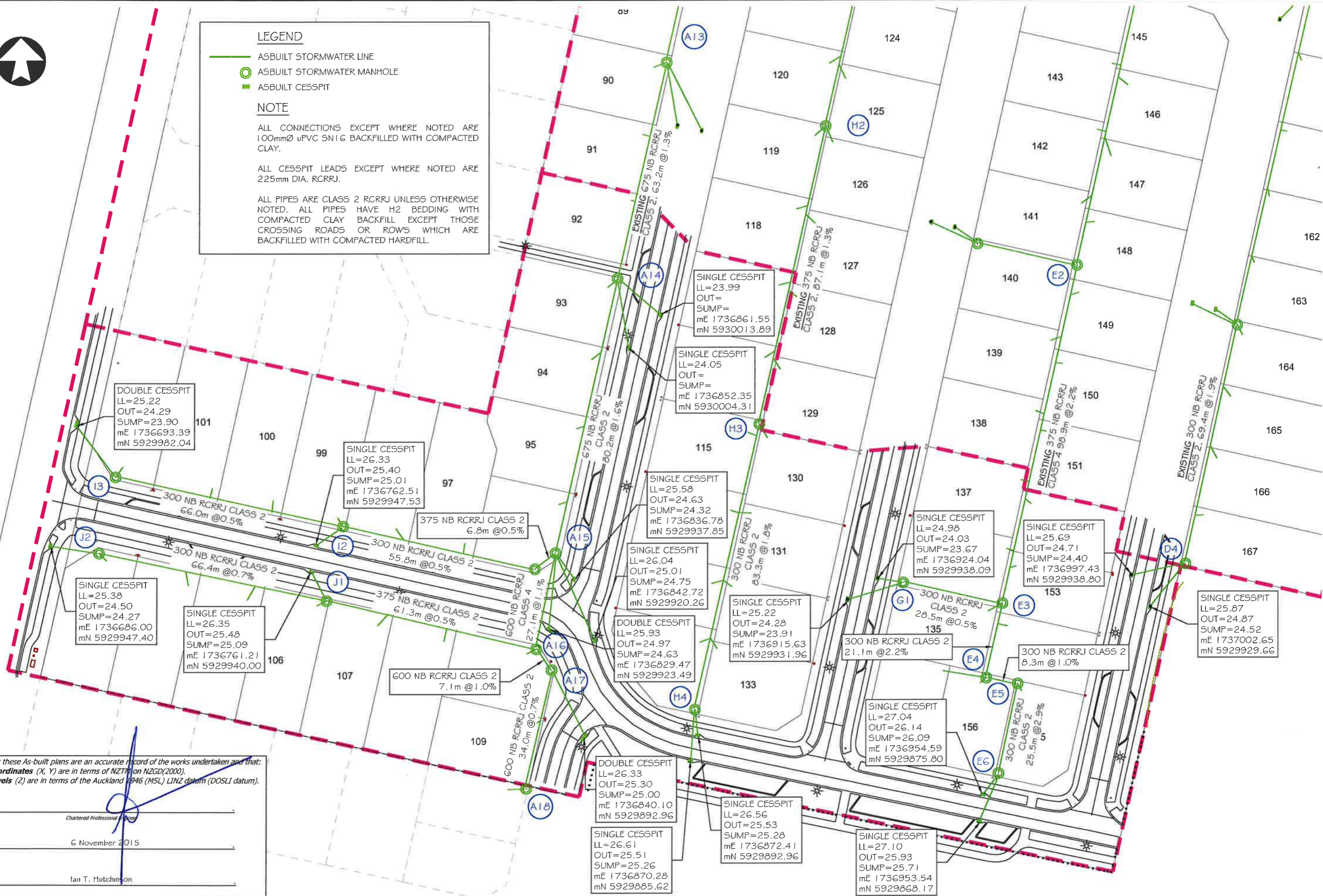
- ASBUILT STORMWATER LINE
- ASBUILT STORMWATER MANHOLE
- ASBUILT CESSPIT

NOTE

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ALL CESSPIT LEADS EXCEPT WHERE NOTED ARE 225mm DIA. RCRRJ.

ALL PIPES ARE CLASS 2 RCRRJ UNLESS OTHERWISE NOTED. ALL PIPES HAVE H2 BEDDING WITH COMPACTED CLAY BACKFILL EXCEPT THOSE CROSSING ROADS OR ROWS WHICH ARE BACKFILLED WITH COMPACTED HARDFILL.



DOUBLE CESSPIT
 LL=25.22
 OUT=24.29
 SUMP=23.90
 mE 1736693.39
 mN 5929982.04

SINGLE CESSPIT
 LL=26.33
 OUT=25.40
 SUMP=25.01
 mE 1736762.51
 mN 5929947.53

SINGLE CESSPIT
 LL=23.99
 OUT=23.99
 SUMP=23.99
 mE 1736861.55
 mN 5930013.89

SINGLE CESSPIT
 LL=24.05
 OUT=24.05
 SUMP=24.05
 mE 1736852.35
 mN 5930004.31

SINGLE CESSPIT
 LL=25.58
 OUT=24.63
 SUMP=24.32
 mE 1736836.78
 mN 5929937.85

SINGLE CESSPIT
 LL=26.04
 OUT=25.01
 SUMP=24.75
 mE 1736842.72
 mN 5929920.26

DOUBLE CESSPIT
 LL=25.93
 OUT=24.97
 SUMP=24.63
 mE 1736829.47
 mN 5929923.49

DOUBLE CESSPIT
 LL=26.33
 OUT=25.30
 SUMP=25.00
 mE 1736840.10
 mN 5929892.96

SINGLE CESSPIT
 LL=26.61
 OUT=25.51
 SUMP=25.26
 mE 1736870.28
 mN 5929885.62

SINGLE CESSPIT
 LL=26.56
 OUT=25.53
 SUMP=25.28
 mE 1736872.41
 mN 5929892.96

SINGLE CESSPIT
 LL=27.10
 OUT=25.93
 SUMP=25.71
 mE 1736953.54
 mN 5929868.17

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Scale vert. exag.		



Project
**CABRA DEVELOPMENTS LTD
 MATUA RESIDENTIAL ESTATE
 STAGE 3B
 179 MATUA ROAD, HUAPAI**

Title
**AS BUILT STORMWATER
 PIPE AND CESSPIT DETAILS**

Job No.
17550AB

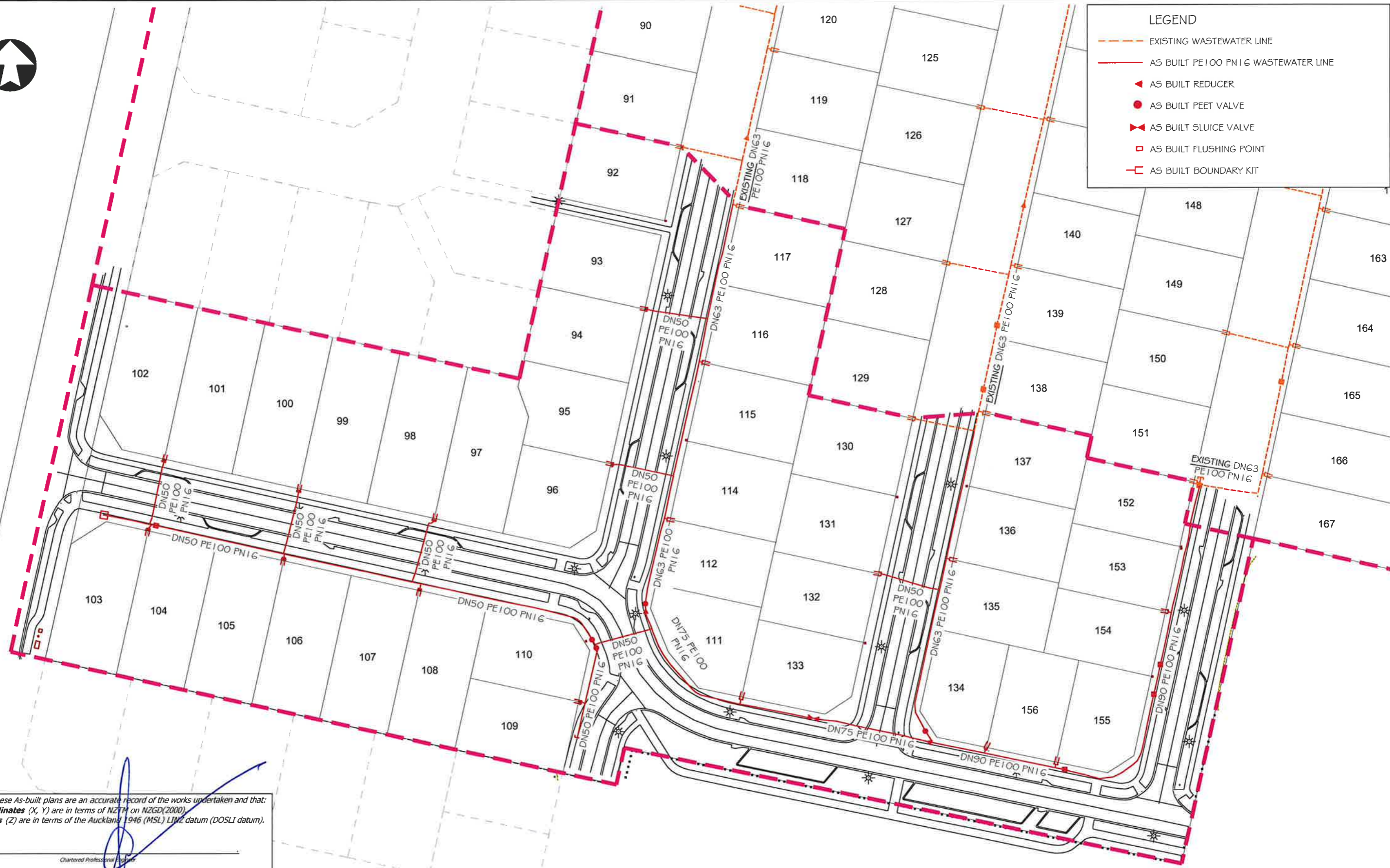
Sheet No.
SW-302

No.	Revision	Drawn	Chk.	Appd.	Date



LEGEND

- EXISTING WASTEWATER LINE
- AS BUILT PE100 PN16 WASTEWATER LINE
- AS BUILT REDUCER
- AS BUILT PEET VALVE
- AS BUILT SLUICE VALVE
- AS BUILT FLUSHING POINT
- AS BUILT BOUNDARY KIT



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SUBDIVISION
 STAGE
 BOUNDARY

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Matua Residential Estate
 HUAPAI

Project
**CABRA DEVELOPMENTS LTD
 MATUA RESIDENTIAL ESTATE
 STAGE 3B
 179 MATUA ROAD, HUAPAI**

Title
AS BUILT WASTEWATER PLAN

Job No.
17550AB

Sheet No.
WW-401



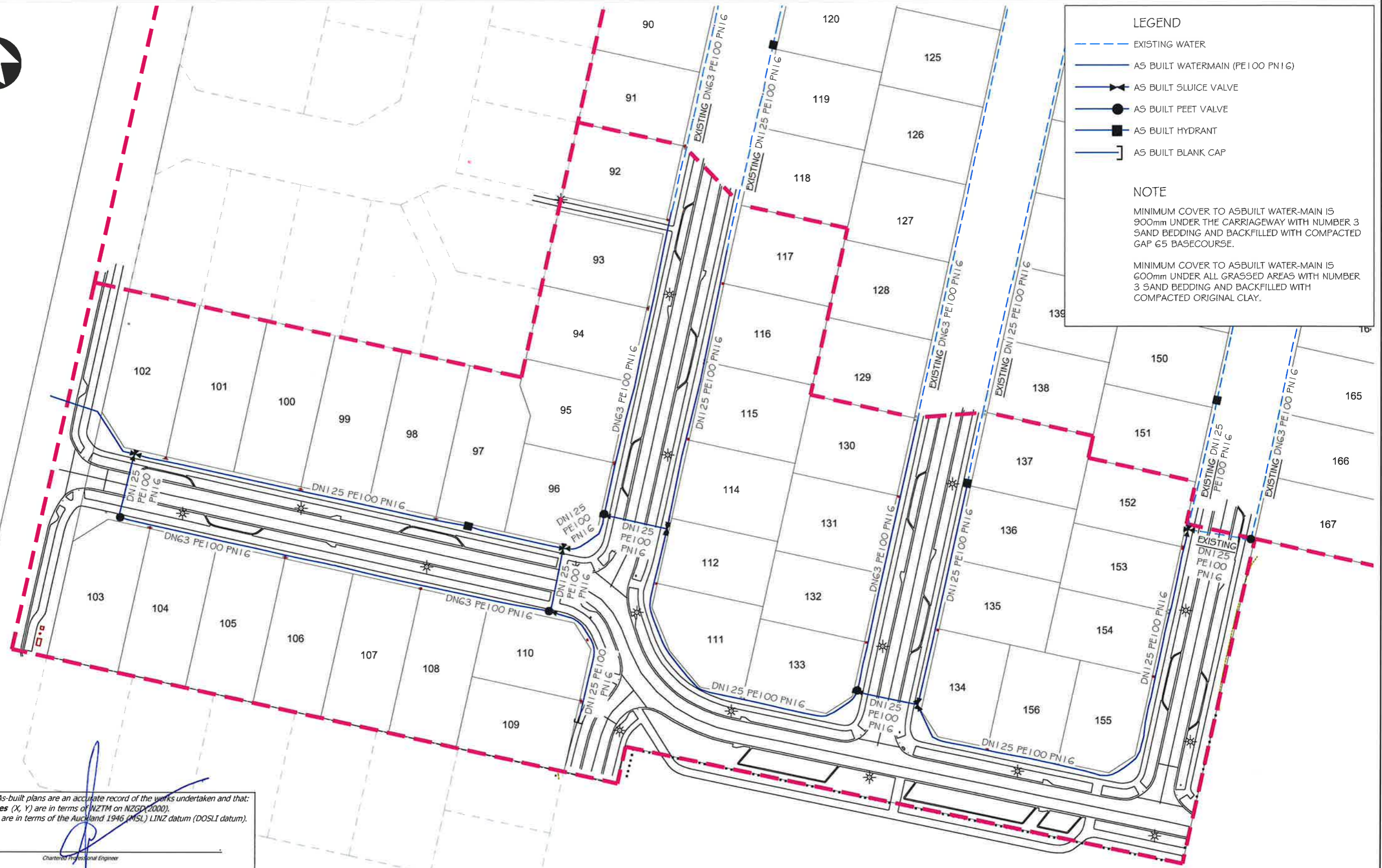
LEGEND

- EXISTING WATER
- AS BUILT WATERMAIN (PE100 PN16)
- AS BUILT SLUICE VALVE
- AS BUILT FEET VALVE
- AS BUILT HYDRANT
- AS BUILT BLANK CAP

NOTE

MINIMUM COVER TO ASBUILT WATER-MAIN IS 900mm UNDER THE CARRIAGEWAY WITH NUMBER 3 SAND BEDDING AND BACKFILLED WITH COMPACTED GAP 65 BASECOURSE.

MINIMUM COVER TO ASBUILT WATER-MAIN IS 600mm UNDER ALL GRASSED AREAS WITH NUMBER 3 SAND BEDDING AND BACKFILLED WITH COMPACTED ORIGINAL CLAY.



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Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 3B
179 MATUA ROAD, HUAPAI

Title
AS BUILT WATERMAIN PLAN

Job No.
17550AB

Sheet No.
WS-501