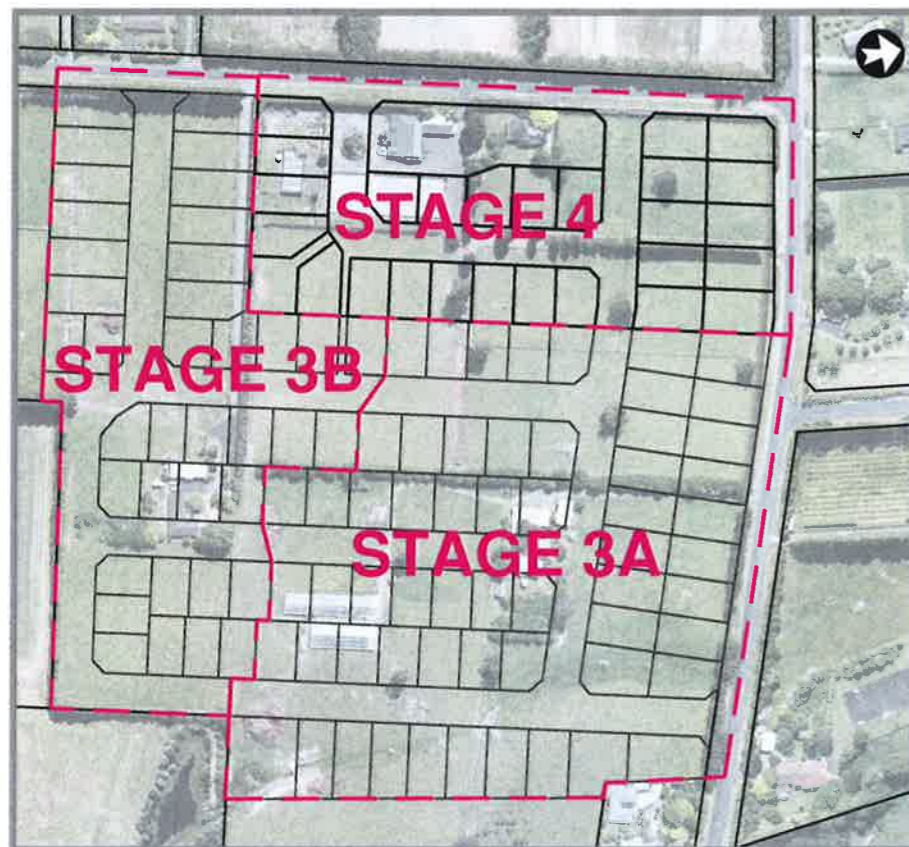


**CABRA DEVELOPMENTS LTD.
MATUA RESIDENTIAL ESTATE
11 GILBRANSEN ROAD, HUAPAI
STAGE 4 AS BUILT PLANS**



154 Centreway Road
Orewa
Auckland

P.O. Box 150 Telephone (09) 426-5702
Orewa Fax (09) 426-9669
Auckland Email info@hc.co.nz



LOCALITY PLAN

DRAWINGS - 18200AB STAGE 4

GENERAL (GE)

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

EARTHWORKS (EW)

- EW-101 ORIGINAL SITE PLAN
- EW-102 AS BUILT CONTOUR PLAN
- EW-103 AS BUILT DEPTH CONTOUR PLAN
- EW-104 AS BUILT RETAINING WALL RESTRICTION ZONE PLAN

ROADING (RD)

- RD-201 AS BUILT ROADING PLAN
- RD-202 AS BUILT TYPICAL ROAD CROSS SECTIONS - COLLECTOR ROAD
- RD-203 AS BUILT TYPICAL ROAD CROSS SECTIONS - LOCAL ROAD

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

**18200AB GE-001
DECEMBER 2015**



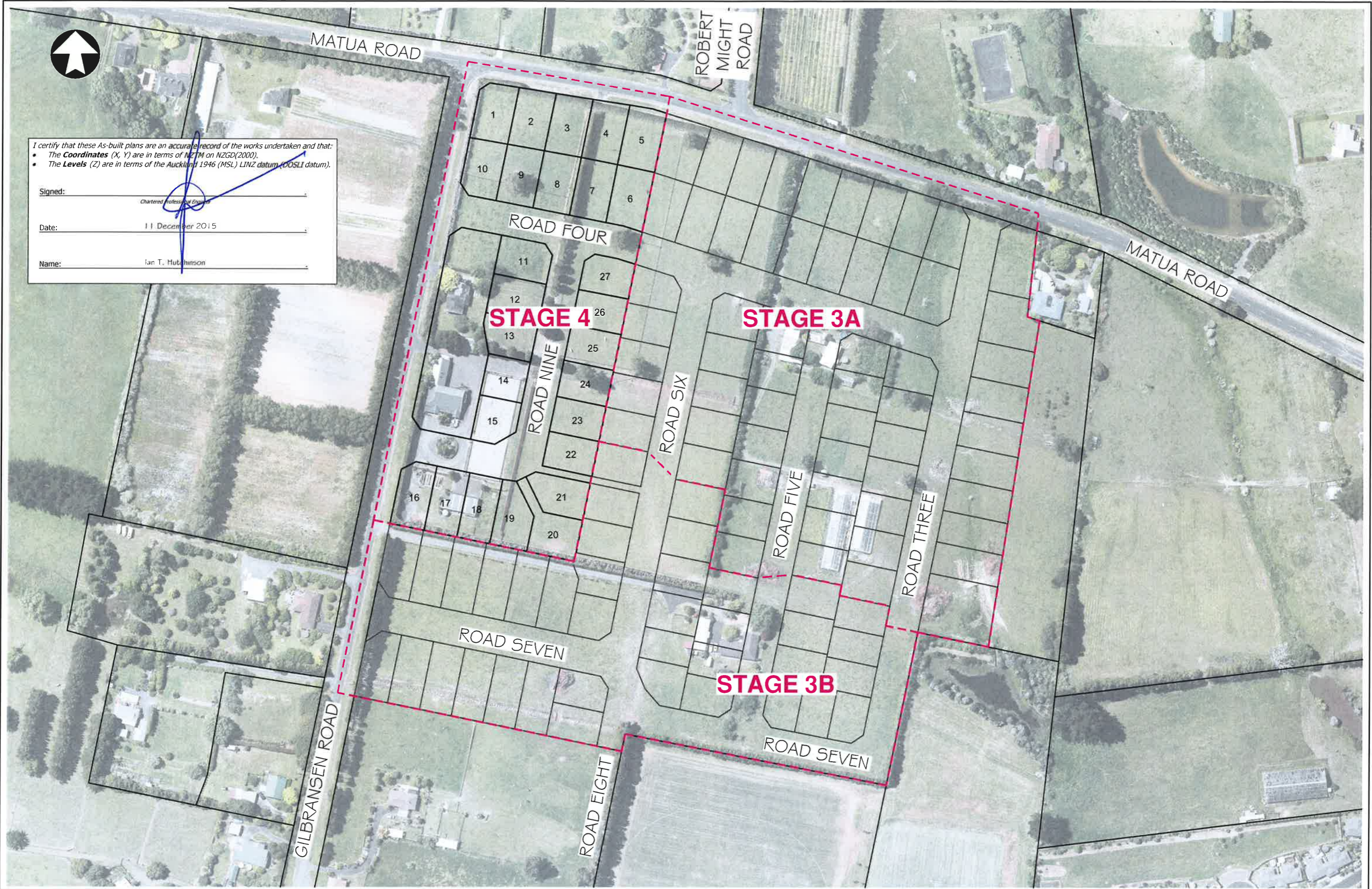
I certify that these As-built plans are an accurate record of the works undertaken and that:

- 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: 11 December 2015

Name: Ian T. Hutchinson



No.	Revision	Drawn	Chk.	Appd.	Date

Hutchinson
 CONSULTING ENGINEERS
 PO Box 150, Orewa 0946
 154 Centreway Road, Orewa 0931
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Design	L. SOVUS	25/11/2015
Drawn	S. MARSHALL	25/11/2015
Checked	N. DOUGLAS	04/12/2015
Approved	I. T. HUTCHINSON	11/12/2015
Scale	1:2000 @ A3	
Scale vert. exag.		



Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
AS-BUILT LOT LAYOUT PLAN

Job No.
A3-18200AB

Sheet No.
GE-002



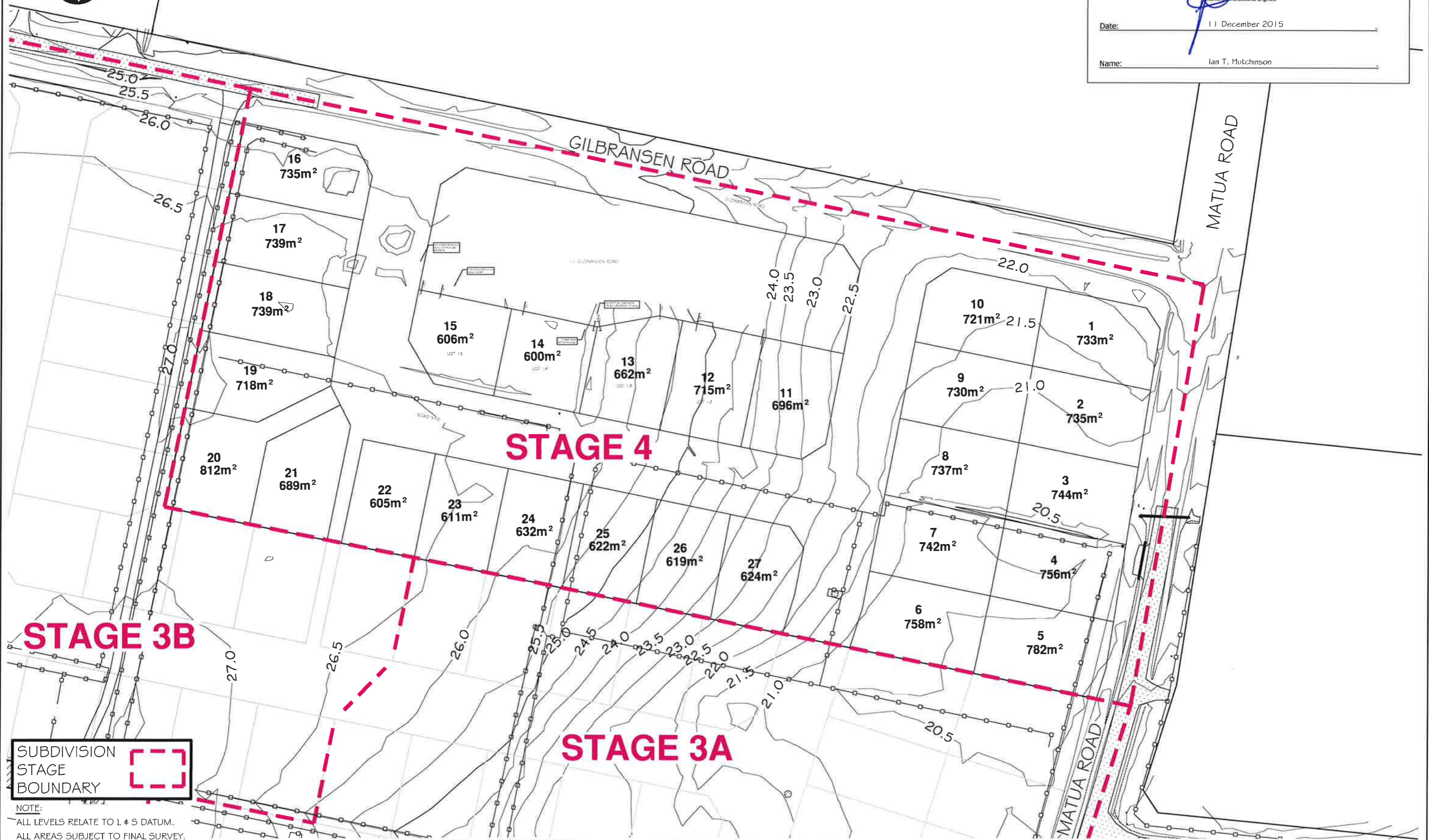
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Signed: _____
 Chartered Professional Engineer

Date: 11 December 2015

Name: Ian T. Hutchinson



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Drawn	S. MARSHALL	25/11/2015
Checked	N. DOUGLAS	4/12/2015
Approved	I. T. HUTCHINSON	11/12/2015
Scale	1:1000 @ A3	
Scale vert. exag.		

Matua Residential Estate
 HUAPAI

Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
ORIGINAL SITE PLAN

Job No.
A3-18200AB

Sheet No.
EW-101



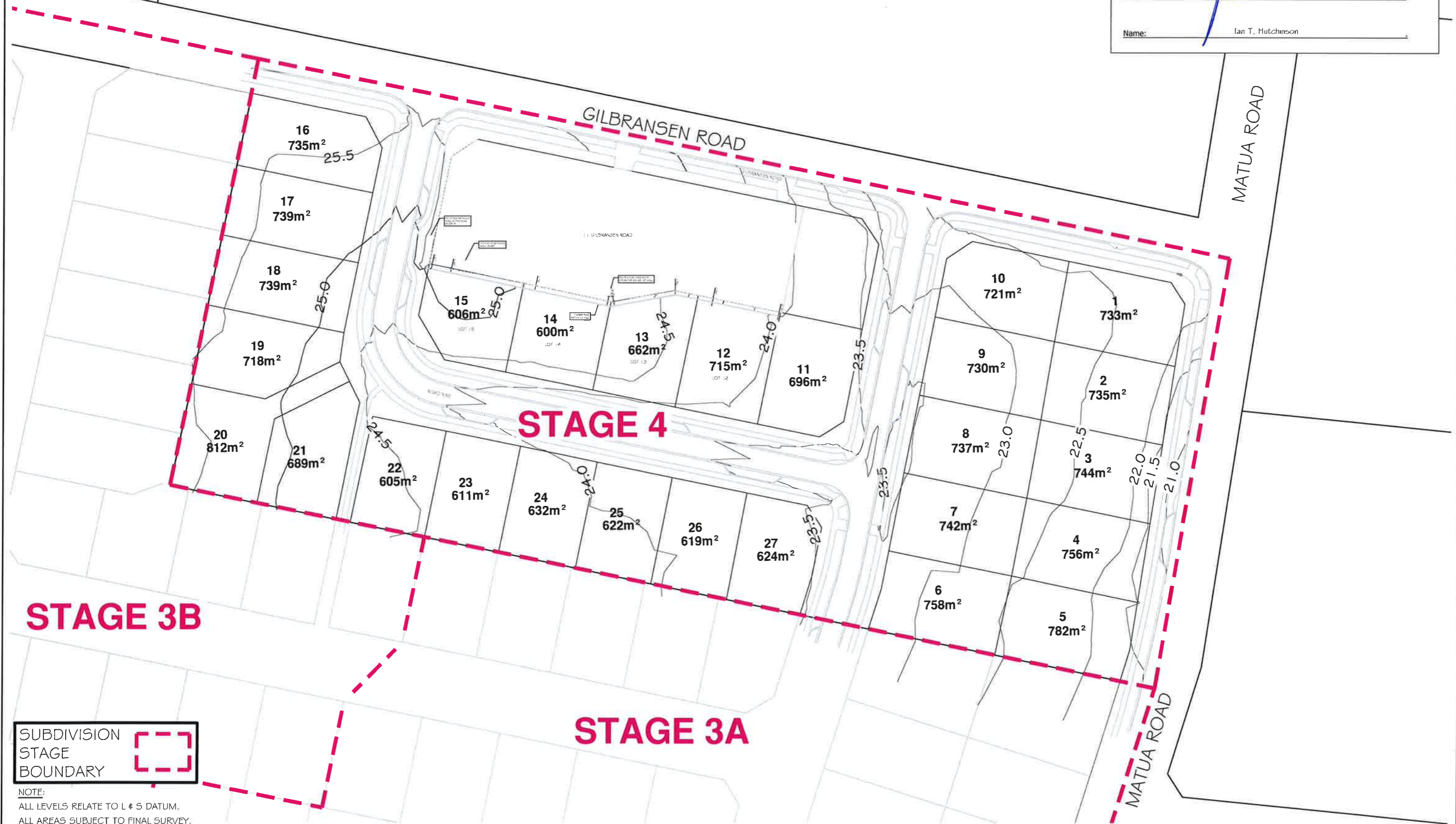
I certify that these As-built plans are an accurate record of the works undertaken and that:

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

Signed: _____
Chartered Professional Engineer

Date: 11 December 2015

Name: Ian T. Hutchinson



SUBDIVISION
STAGE
BOUNDARY

NOTE:
ALL LEVELS RELATE TO L # 5 DATUM.
ALL AREAS SUBJECT TO FINAL SURVEY.

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							Drawn S. MARSHALL 25/11/2015		Checked N. DOUGLAS 4/12/2015	Approved I. T. HUTCHINSON 11/12/2015	



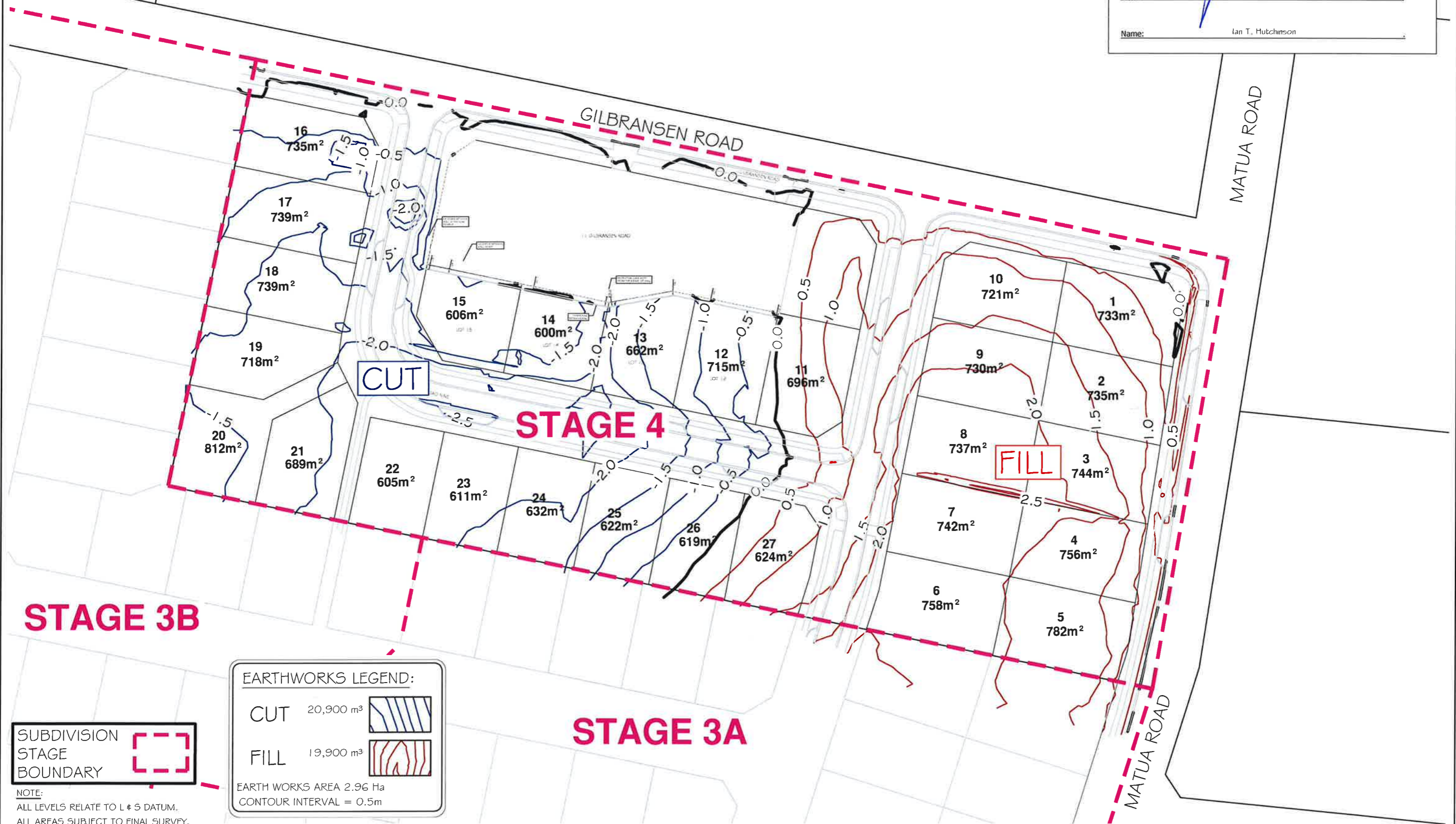
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Signed: _____
Chartered Professional Engineer

Date: 11 December 2015

Name: Ian T. Hutchinson



STAGE 3B

STAGE 4

STAGE 3A

EARTHWORKS LEGEND:

CUT 20,900 m³

FILL 19,900 m³

EARTH WORKS AREA 2.96 Ha
 CONTOUR INTERVAL = 0.5m

SUBDIVISION STAGE BOUNDARY

NOTE:
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 ALL AREAS SUBJECT TO FINAL SURVEY.

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Drawn	S. MARSHALL	25/11/2015
Checked	N. DOUGLAS	4/12/2015
Approved	I. T. HUTCHINSON	11/12/2015
Scale	1:1000 @ A3	
Scale vert. exag.		

Matua Residential Estate
 HUAPAI

Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
AS-BUILT DEPTH CONTOUR PLAN

Job No.
A3-18200AB

Sheet No.
EW-103



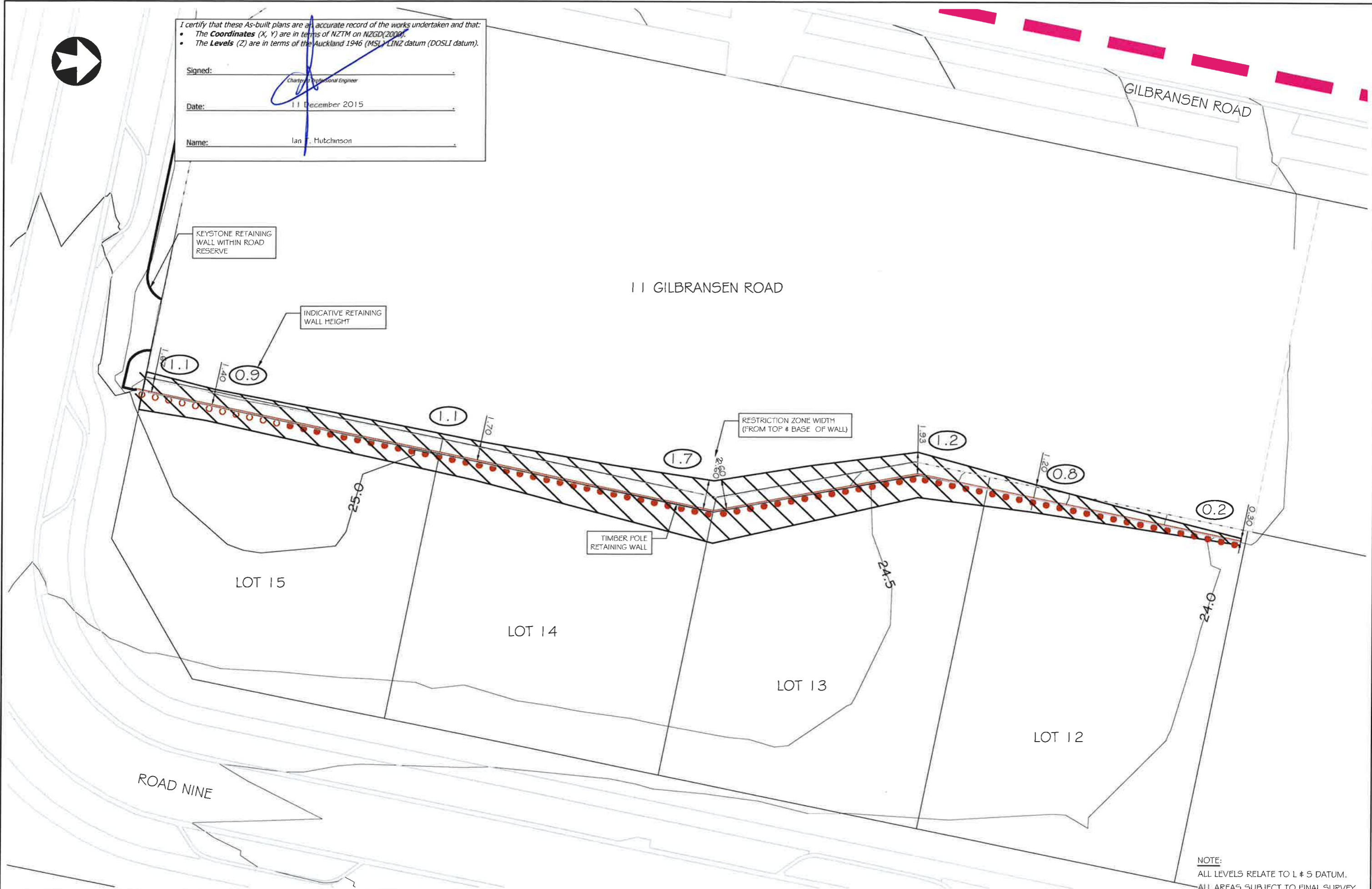
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Signed: _____
Chartered Professional Engineer

Date: 11 December 2015

Name: Ian T. Hutchinson



NOTE:
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 ALL AREAS SUBJECT TO FINAL SURVEY.

No.	Revision	Drawn	Chk.	Appd.	Date

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Drawn	S. MARSHALL	25/11/2015
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Approved	I. T. HUTCHINSON	11/12/2015
Scale	1:300 @ A3	
Scale vert. exag.		

Matua Residential Estate
 HUAPAI

Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
AS-BUILT RETAINING WALL
RESTRICTION ZONE PLAN

Job No.
A3-18200AB

Sheet No.
EW-104



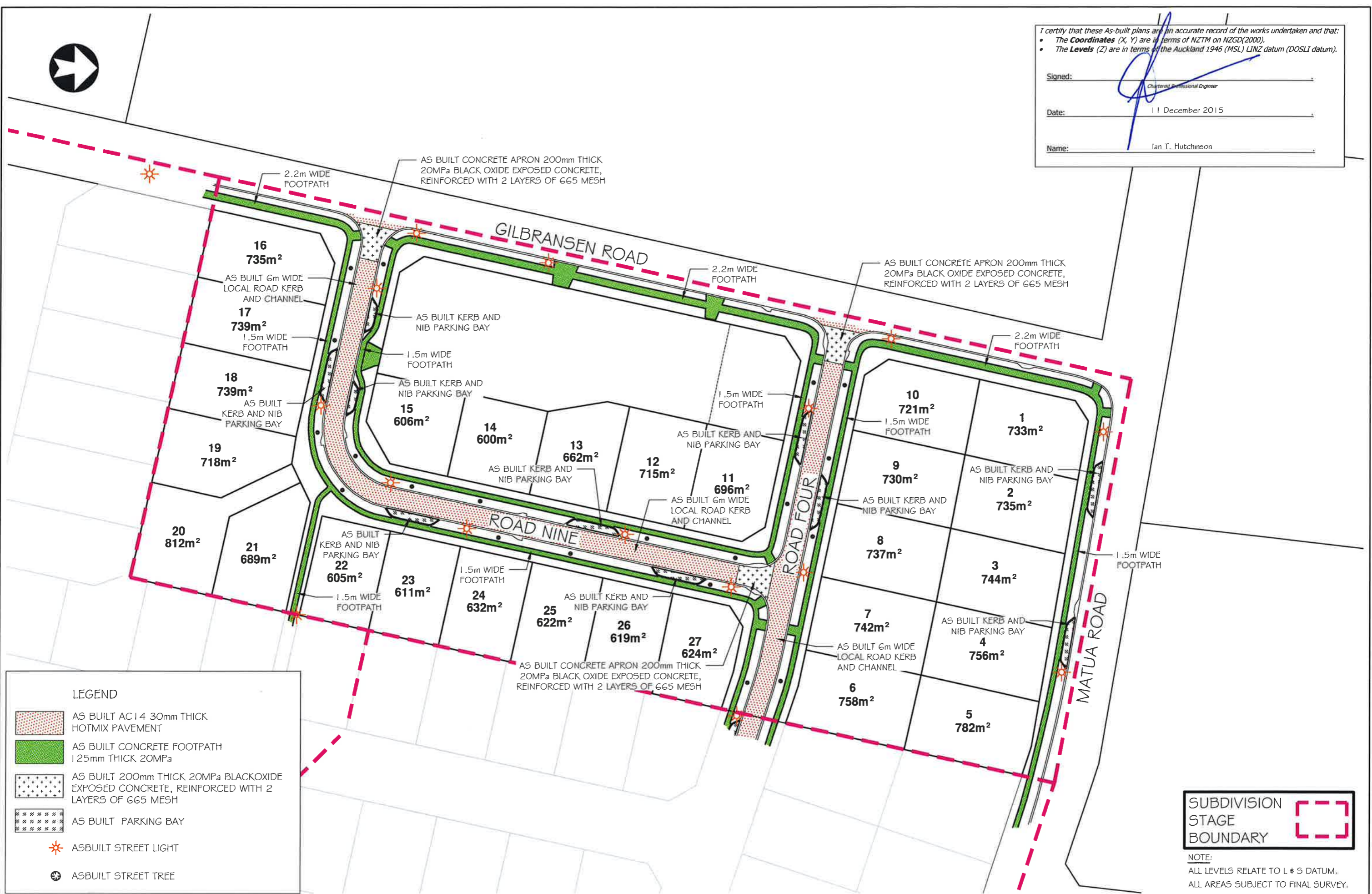
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- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum).

Signed: _____
Chartered Professional Engineer

Date: 11 December 2015

Name: Ian T. Hutchinson



LEGEND

- AS BUILT AC14 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
- ASBUILT STREET TREE

SUBDIVISION STAGE BOUNDARY

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

No.	Revision	Drawn	Chk.	Appd.	Date

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Drawn	S. MARSHALL	25/11/2015
Checked	N. DOUGLAS	4/12/2015
Approved	I. T. HUTCHINSON	11/12/2015
Scale	1:1000 @ A3	
Scale vert. exag.		

Matua Residential Estate
 HUAPAI

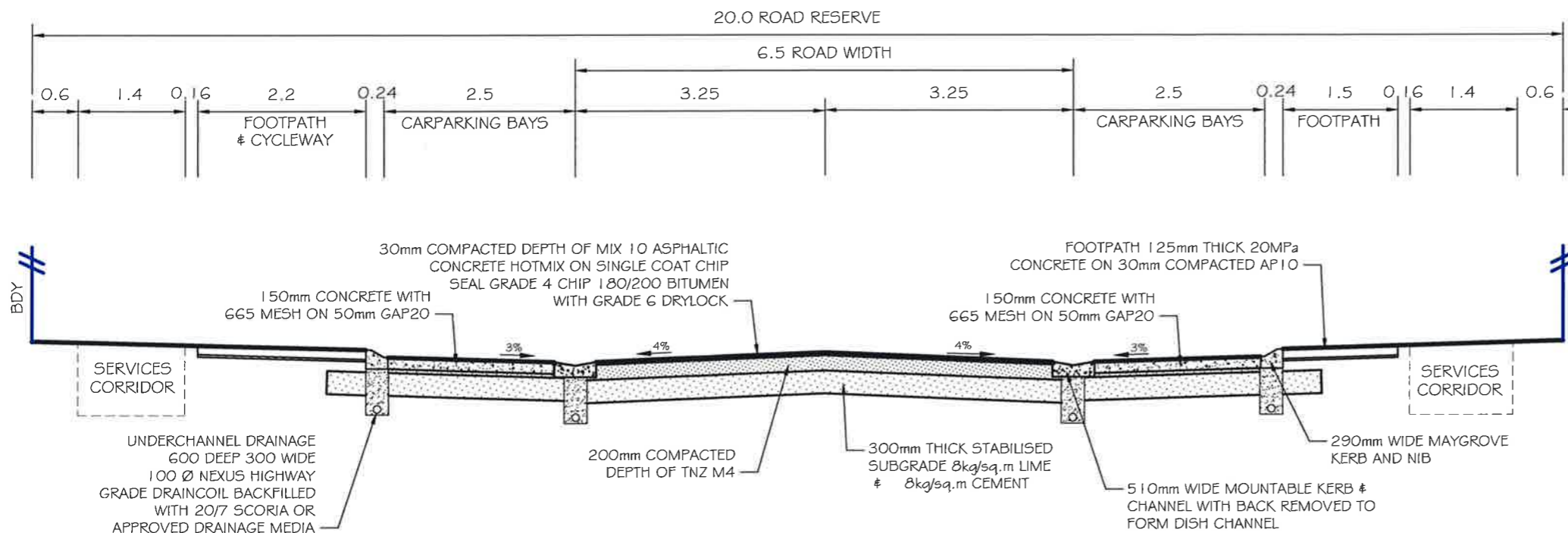
Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
AS-BUILT ROADING PLAN

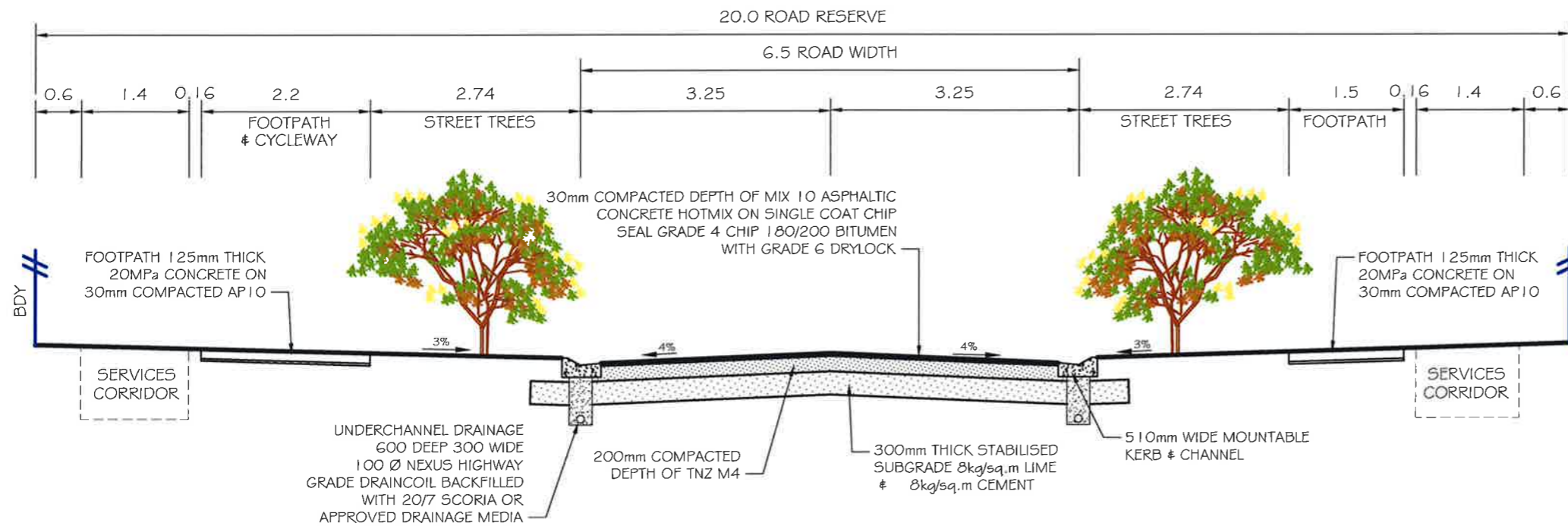
Job No.
A3-18200AB

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 6.5m WIDE ROAD - COLLECTOR ROAD WITH PARKING
SCALE 1:75 @ A3



TYPICAL AS-BUILT 6.5m WIDE ROAD - COLLECTOR ROAD WITHOUT PARKING
SCALE 1:75 @ A3

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

- 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: _____
Date: 1 December 2015
Name: Ian T. Hutchinson

No.	Revision	Drawn	Chk.	Appd.	Date

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CONSULTING ENGINEERS
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Drawn	S. MARSHALL	25/11/2015
Checked	N. DOUGLAS	4/12/2015
Approved	I. T. HUTCHINSON	11/12/2015
Scale	1:75 @ A3	
Scale vert. exag.		

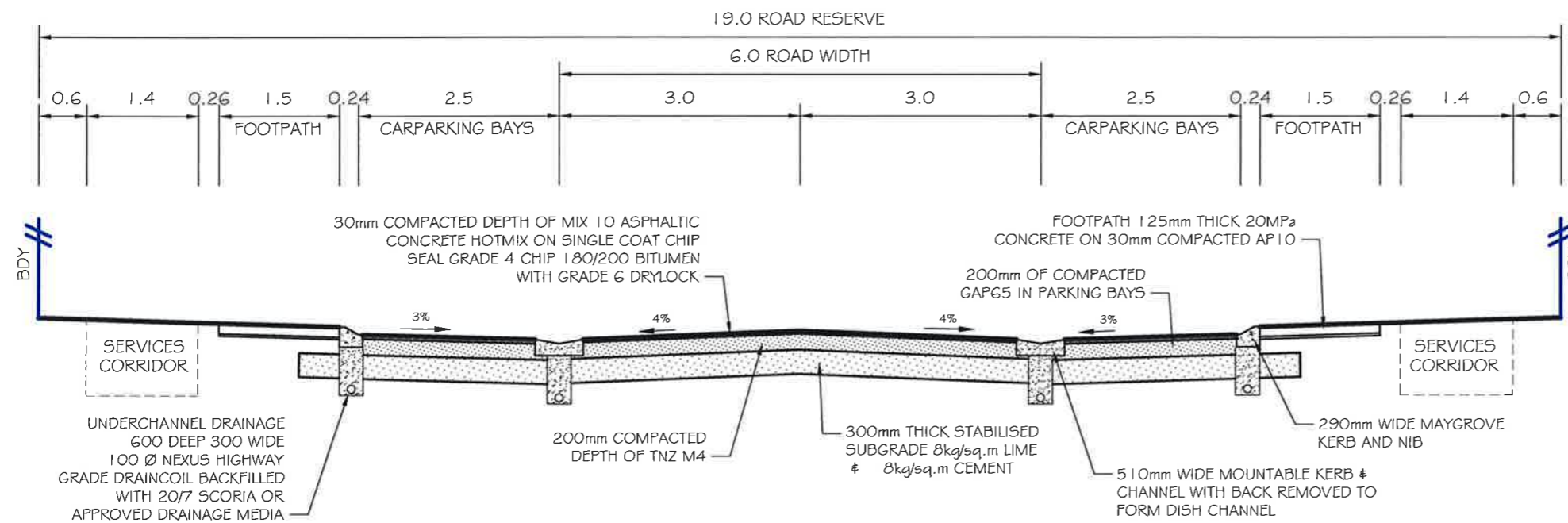


Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
AS-BUILT TYPICAL ROAD CROSS
SECTIONS - COLLECTOR ROAD
Job No.
A3-18200AB

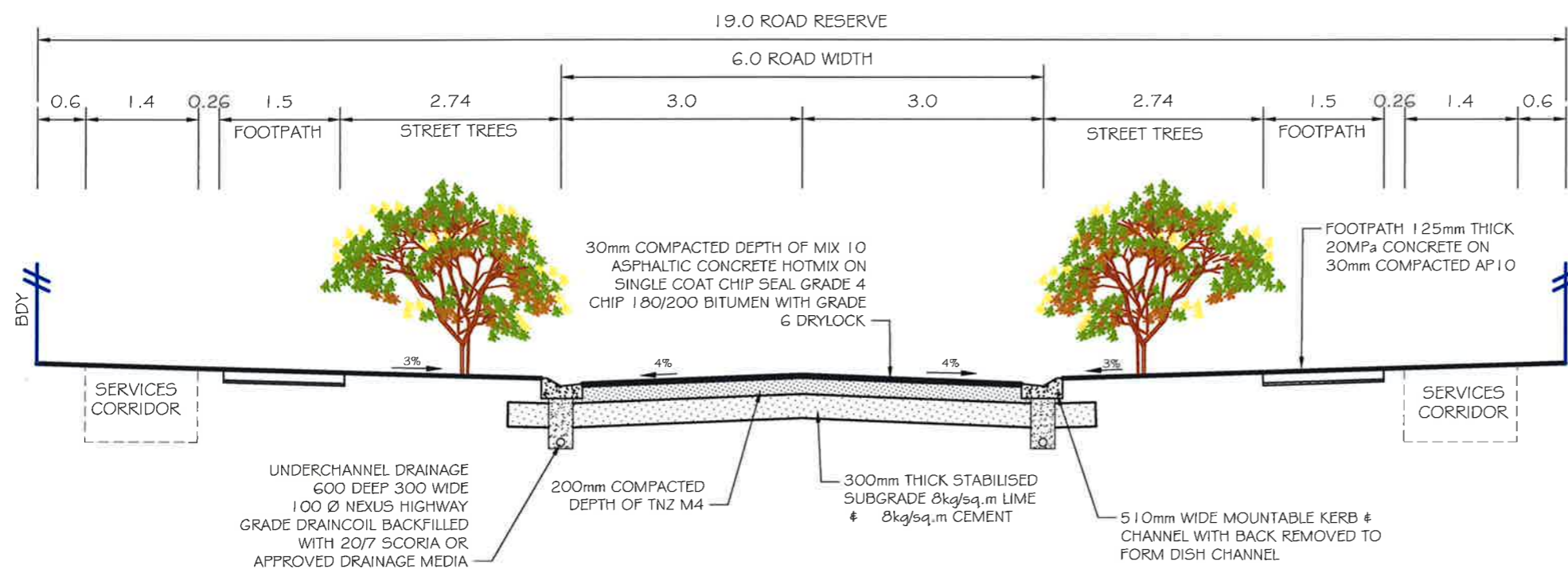
Sheet No.
RD-202

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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Signed: _____
Chartered Professional Engineer

Date: 11 December 2015

Name: Ian T. Hutchinson

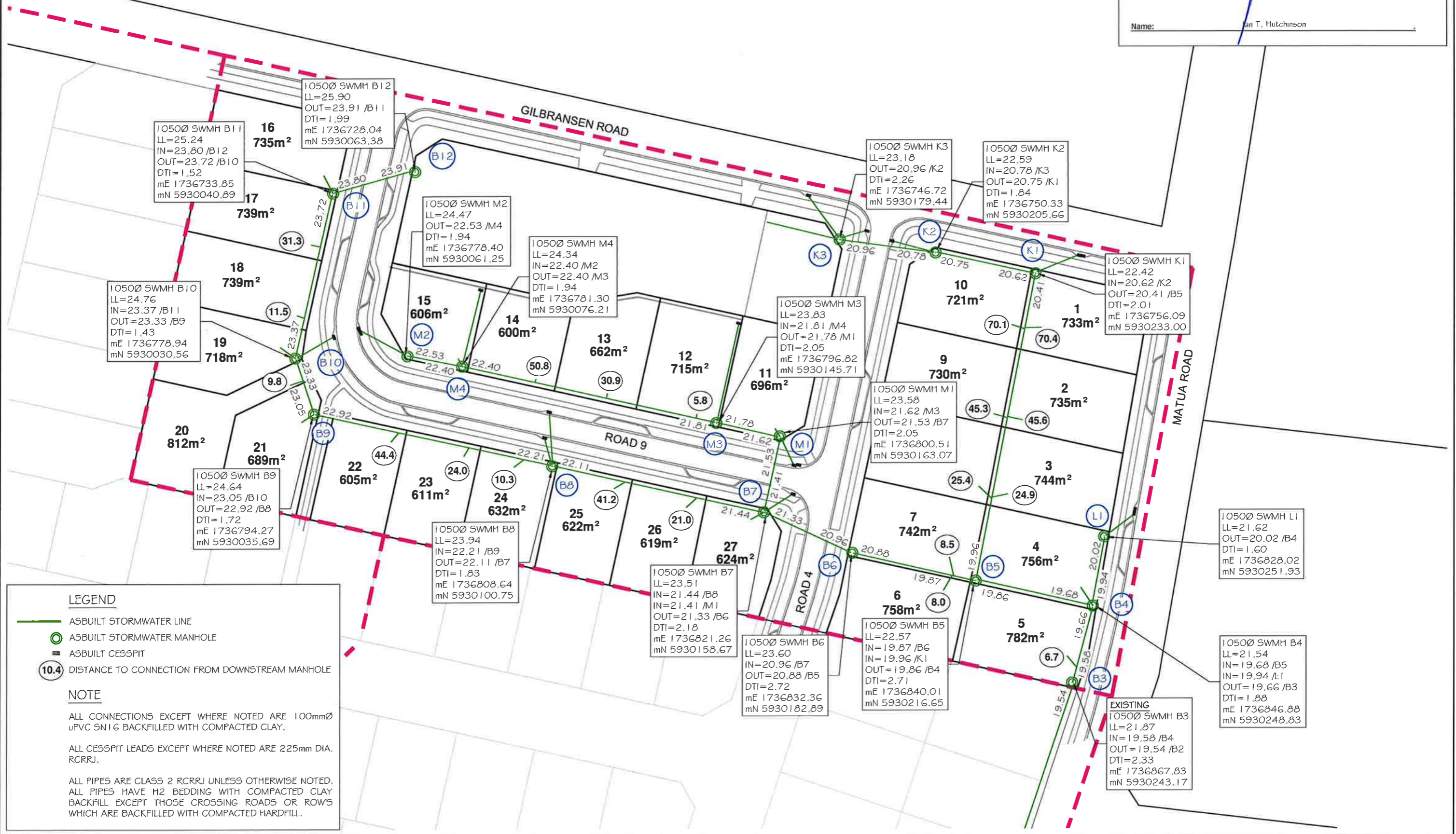
				Design: L. SOVUS 25/11/2015 Drawn: S. MARSHALL 25/11/2015 Checked: N. DOUGLAS 4/12/2015 Approved: I. T. HUTCHINSON 11/12/2015 Scale: 1:75 @ A3 Scale vert. exag.		Project: CABRA DEVELOPMENTS LTD MATUA RESIDENTIAL ESTATE STAGE 4 11 GILBRANSEN ROAD, HUAPAI		Title: AS-BUILT TYPICAL ROAD CROSS SECTIONS - LOCAL ROAD Job No.: A3-18200AB		Sheet No.: RD-203	
No.	Revision	Drawn	Chk.	Appd.	Date	PO Box 150, Orewa 0946 154 Centreway Road, Orewa 0931 Ph: 09 426 5702 www.hc.co.nz					



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Signed: _____
 Date: 14 December 2015
 Name: Ian T. Hutchinson



LEGEND

- ASBUILT STORMWATER LINE
- ASBUILT STORMWATER MANHOLE
- ASBUILT CESSPIT
- 10.4 DISTANCE TO CONNECTION FROM DOWNSTREAM MANHOLE

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.

No.	Revision	Drawn	Chk.	Appd.	Date

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Checked	N. DOUGLAS	4/12/2015
Approved	I. T. HUTCHINSON	11/12/2015
Scale	1:1000 @ A3	
Scale vert. exag.		

Matua Residential Estate
HUAPAI

Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
AS-BUILT STORMWATER
MANHOLE DETAILS

Job No.
A3-18200AB

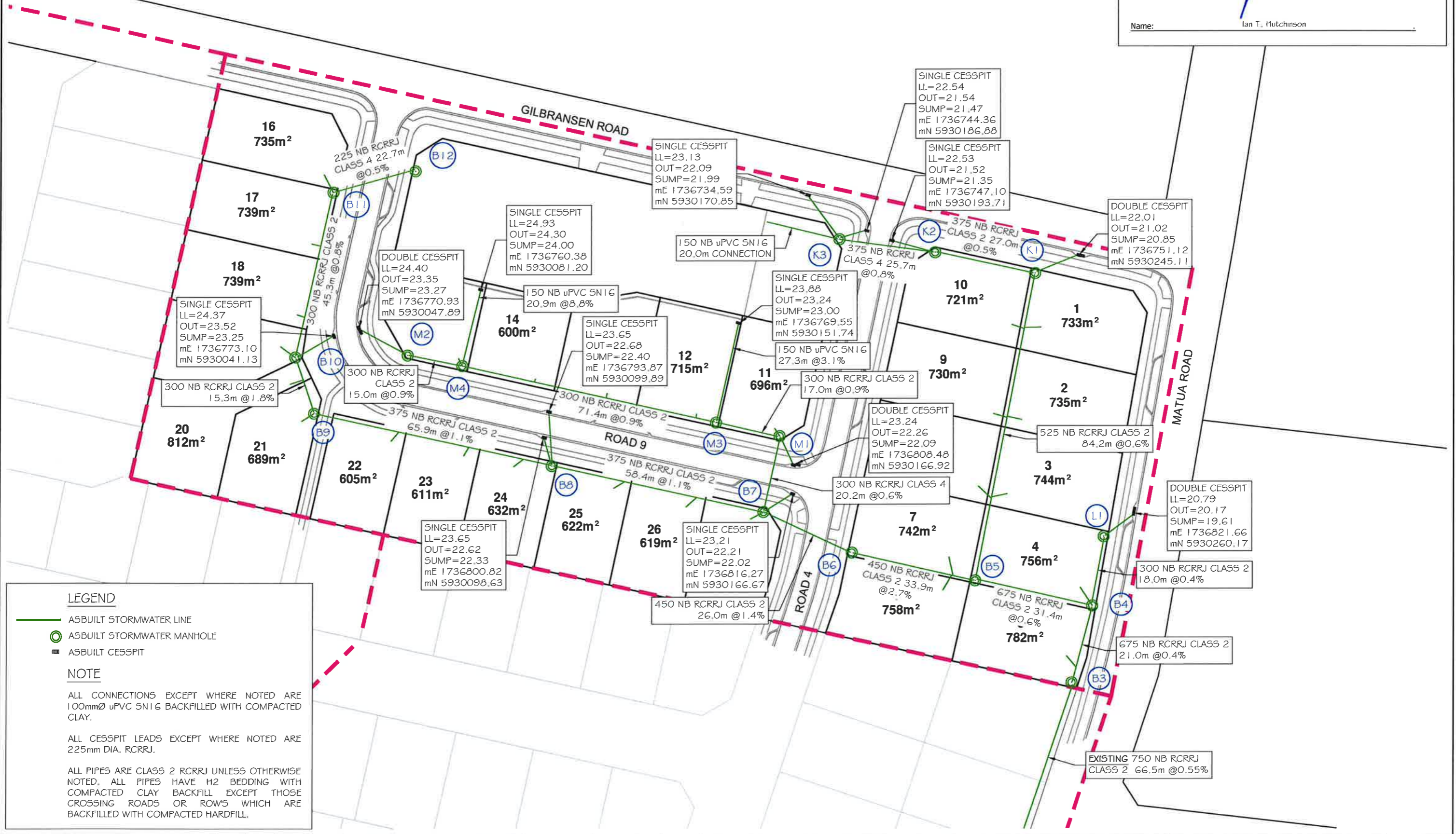
Sheet No.
SW-301



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

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Signed: _____
 Date: 11 December 2015
 Name: Ian T. Hutchinson



LEGEND

- ASBUILT STORMWATER LINE
- ASBUILT STORMWATER MANHOLE
- ASBUILT CESSPIT

NOTE

ALL CONNECTIONS EXCEPT WHERE NOTED ARE 100mm Ø 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.

No.	Revision	Drawn	Chk.	Appd.	Date

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Scale	1:1000 @ A3	
Scale vert. exag.		

Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
AS-BUILT STORMWATER
PIPE AND CESSPIT DETAILS

Job No.
A3-18200AB

Sheet No.
SW-302



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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Signed: _____
Chartered Professional Engineer

Date: 11 December 2015

Name: Ian T. Hutchinson

SUBDIVISION
STAGE
BOUNDARY

No.	Revision	Drawn	Chk.	Appd.	Date

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Scale vert. exag.		

Matua Residential Estate
HUAPAI

Project
**CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI**

Title
AS-BUILT WASTEWATER PLAN

Job No.
A3-18200AB

Sheet No.
WW-401



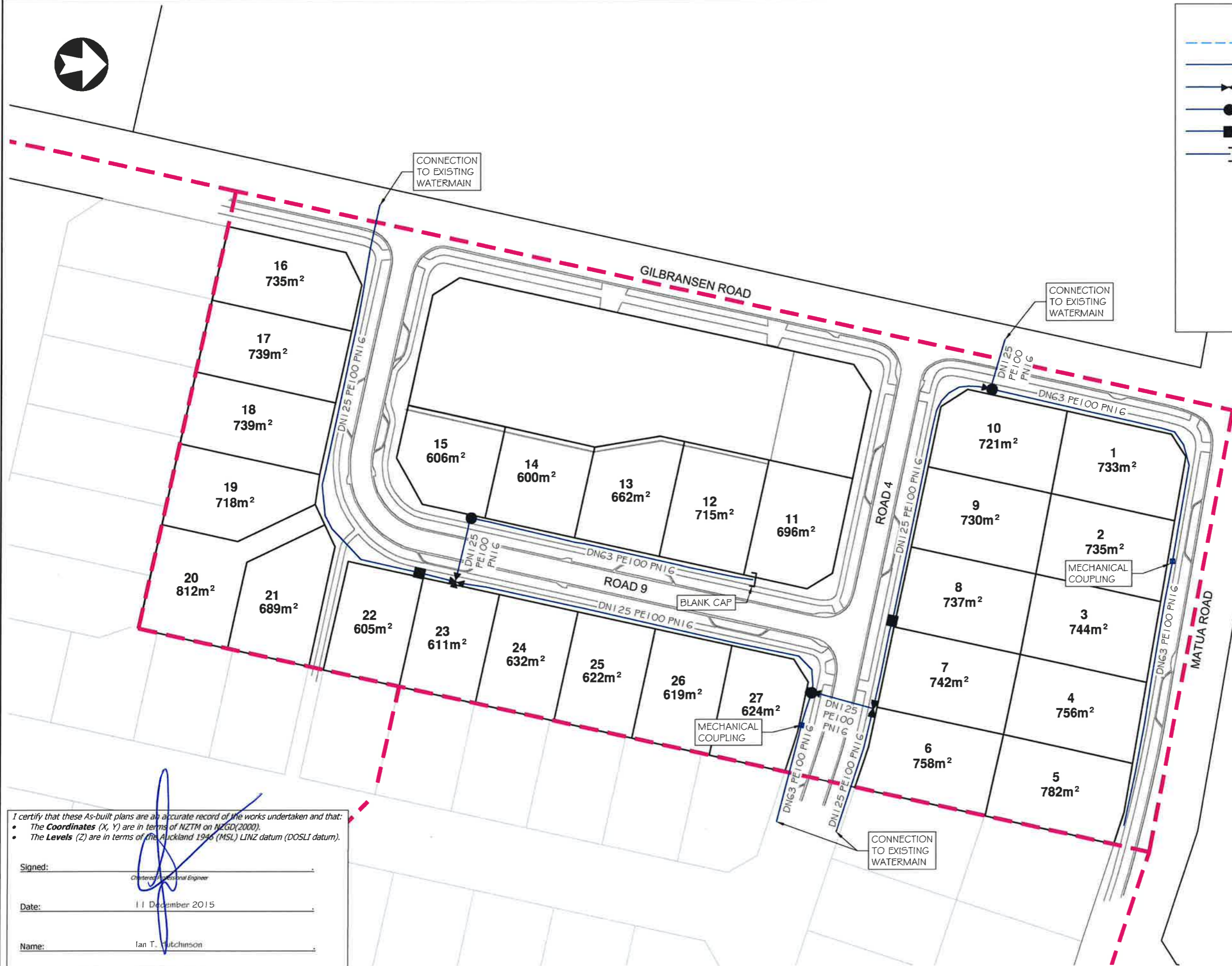
LEGEND

- EXISTING WATER
- AS BUILT WATERMAIN (PE100 PN16)
- AS BUILT SLUICE VALVE
- AS BUILT PEET 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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Chartered Professional Engineer

Date: 11 December 2015

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SUBDIVISION
 STAGE
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Matua Residential Estate
 HUAPAI

Project
CABRA DEVELOPMENTS LTD
MATUA RESIDENTIAL ESTATE
STAGE 4
11 GILBRANSEN ROAD, HUAPAI

Title
AS-BUILT WATERMAIN PLAN

Job No.
A3-18200AB

Sheet No.
WS-501