CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street
PO Box 127, Waipawa 4240
New Zealand

Phone: 06 857 8060
Fax: 06 857 7179
www.chbdc.govt.nz

Land Information Memorandum

Application

Bayleys Real Estate	No.	L240085
52 Bridge Street	Application date	18/06/2024
Ahuriri	Issue date	03/07/2024
Napier 4110	Phone	021 422 332
Attention: Jodie Woodfield		

Property

Valuation No.	1088011600
Location	63 Ruataniwha Street, Waipukurau
Legal Description	LOT 2 DP 24265
Area (hectares)	0.0339

Rates

Government Valuation	
Land	$200,000
Improvements	$410,000
Capital Value	$610,000
Current Rates Year 2023 to 2024	
Annual Rates	$6,200.78
Current Installment	$1,550.19
Current Year - Outstanding Rates	$ 35.00-
Arrears for Previous Years	$ 0.00
Next Installment Due	20/08/2024

Note: Rates are charged in four equal installments for the period commencing 1 July and ending 30 June each year.

Estimated rates 2024/2025
$7629.74

Disclaimer

This Land Information Memorandum (LIM) has been prepared for the applicant for the purpose of section 44A of the Local Government Official Information and Meetings Act 1987 (LGOIMA).

The LIM includes information which must be included pursuant to section 44A of LGOIMA, or that the Council, at its discretion, considered appropriate to include. The information is also considered by the Council to be relevant and reliable.

This LIM does not include other information:

- Held by the Council that is not required to be included (this may be contained on the property file)
- Relating to the land which is unknown to the Council; or
- Held by any other organization which also hold land information (e.g., Hawkes Bay Regional Council and Waka Kotahi NZ Transport Agency).

The Council has not carried out an inspection of the land and/or buildings for the purpose of preparing this LIM. The Council records also may not show illegal or unauthorized building or works on the land.

The applicant is solely responsible for ensuring that the land or any building on the land is suitable for a particular purpose and for sourcing other information held by the Council or other organizations. In addition, the applicant should check the Record of Title for the property as it might also contain obligations relating to the land.

The text and attachments of this document should be considered together, and the LIM is valid as at the date of issue only.

The Council does not provide interpretation or advice on how to interpret or use this information. If this is required, the applicant should seek appropriate and independent professional advice.

The Council records can be incomplete in some instances.

Planning/Resource Management

Planning Zone: (THE APPEALS VERSION OF THE PROPOSED DISTRICT PLAN):

TOWN CENTRE ZONE

The Decisions Version of the Proposed Central Hawke's Bay District Plan was adopted on 25th May 2023. The appeals closed on 7th July, as such the provisions of the Proposed District Plan Appeals Version now have legal effect. and appeals have been assessed and made live in the E-Plan. Where the provision has not been appealed the Proposed District Plan has taken legal effect. The full details of the process towards the Appeals Version of the Proposed District Plan adoption can be found on Councils website. www.chbdc.govt.nz

Planning Zone: (OPERATIVE DISTRICT PLAN): BUSINESS 1

During the appeal period of the Appeals Version of the Proposed District Plan, the provisions of the Operative District Plan remain relevant.

Full details of the zone requirements are found in the current District Plan also on Council's website www.chbdc.govt.nz Relevant zone rules are attached.

Resource Consent Information: As attached.

RM220076 – Land Use – Self-illuminated storefront signage – Decision Notified Approved and Issued 10/05/2022

RM150005 – Demolition of existing building and construct new building – **Consent was not required as single storey structure.**

Survey Plan 06/04/1994 – Boundary adjustment.

Erosion & Sediment Control

Erosion & Sediment Control brochure attached.

Land Use on Contiguous Properties

Historic building, Airlie Mount, located south of this property on the South Service Lane.

No further information located.

Building

11/11/2022	Compliance Schedule CS0065: BNZ Bank / Domino's Pizza: Compliance Schedule CS0065: BNZ Bank / Domino's Pizza:
	Invoiced 27/07/23: Last warrant of fitness received 27/07/2023: **BWOF overdue notice sent 24/06/2024**
20/05/2022	Building Consent: 220054: Internal fit out of commercial building:
	Code Compliance Certificate 18/11/2022
14/05/2021	Building Consent: 210123: Enclosed ATM lobby in existing bank:
	Code Compliance Certificate 06/08/2021
02/09/2015	Building Consent: 150036: Demolition of existing structure: Structural works to adjacent building for support, Construct Single Storey Commercial Building:
	Code Compliance Certificate issued 20/05/2016
04/07/2014	Building Consent: 140135: Demolish existing property brokers building, excavation and capping of services: **Refusal to grant letter – 12/09/2014**

Sewer, Stormwater and Water

Sewer Connected – Sewerage rates apply.

Stormwater Connected − Stormwater rates apply.

Water Connected to town supply – CHB District Council Water Supply Operations – water supply rates apply.

Water meter: There is a water meter on property but no transactions since installation.

Council Stormwater Drain

There is a Council stormwater drain running through this property.

Stormwater Infiltration Fault: The gully trap at the property was too low.

Rectification inspected and signed off 26/08/2008.

Services Map Attached

A Services Map is **attached**. Council recommends that the applicant also obtains and reviews the record of title and deposited plan for the property to verify the existence or absence of easements

No further information located

Land and Building Classifications

No buildings or land uses on this property are of notable significance.

Proposed District Plan – Appeals Version

You are encouraged to seek further information on the Appeals Version of the Proposed District Plan page on Council's website: https://www.chbdc.govt.nz or contact the Central Hawke's Bay District Council Planning Department (06) 857 8060 for further information.

Refer to copy of map from District Plan for other classifications in the immediate vicinity.

No further information located

Compliance with Swimming Pool Bylaw

No pool registered to this property.

Land Transport Requirements

No information located.

Special Land Features

Regional Hazards Portal

The Hawkes Bay Regional Council (HBRC) launched a portal which integrates various hazard information available within the Hawkes Bay Region. The HBRC portal is available to the general public seeking information on hazards and is available at https://gis.hbrc.govt.nz/hazards

Click on the Hawkes Bay Hazard Portal to find the information required.

No further information located.

Licences/Environmental Health

No information located.

Network Utility Operators

Information related to the availability of supply, authorisations etc (eg, electricity or gas) can be obtained from the relevant Network Utility Operator.

***Other Information**

No title search has been done on this property.

The Hawke's Bay Regional Council may charge rates on the property

Development Levies or Financial Contributions

If any development occurs on this property, it may be subject to Development Levies or Financial Contributions.

No further information located.

Maps Attached

Property Map
2019 Aerial Photo Map
2015 Aerial Photo Map
2013 Aerial Photo Map
2011 Aerial Photo Map
2009 Aerial Photo Map
Planning Map (Operative District Plan)
Planning Map (Appeals Version of the Proposed District Plan)
Topo Map
Services Map

Notes

1. Final inspections on buildings were not mandatory prior to 1 January 1993. Should an evaluation of the building be required an independent qualified person should be consulted. In the interests of safety, an inspection of any fireplace within the dwelling may be requested of Council at any time, after paying the appropriate fee.
2. This Land Information Memorandum has been prepared for the purposes of Section 44 A of the Local Government Act 1987. It contains all the information known to the Central Hawke's Bay District Council relevant to the land described. It is based on a search of Council records only and there may be other information relating to the land which is unknown to Council. The Central Hawke's Bay District Council has not undertaken any inspection of the land or any buildings on it for the purposes of preparing the LIM. The applicant is solely responsible for ensuring the land is suitable for a particular purpose.
3. Any enquiry not accompanied by a fee will be invoiced separately. (All prices are GST inclusive.)
4. ***Other Information**

   The information under this heading is not required to be provided in accordance with section 44A(2) of the Official Information Act 1987. This is optional information concerning the land that the Council considers to be relevant. You acknowledge that where such information is provided, the Council accepts no legal responsibility for the accuracy of the information.

This LIM has been compiled with information provided by several Council teams. If you have any queries regarding the contents of this LIM, please contact us on 06 857 8060.
lim@chbdc.govt.nz

Signed: Date: 03/07/2024

Jenny Kingston
PLANNING SUPPORT OFFICER

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **HBV2/379**

Land Registration District **Hawkes Bay**

Date Issued 27 January 1995

Prior References
HB204/82

Estate Fee Simple

Area 339 square metres more or less

Legal Description Lot 2 Deposited Plan 24265

Registered Owners

BNZ Branch Properties Limited

Interests

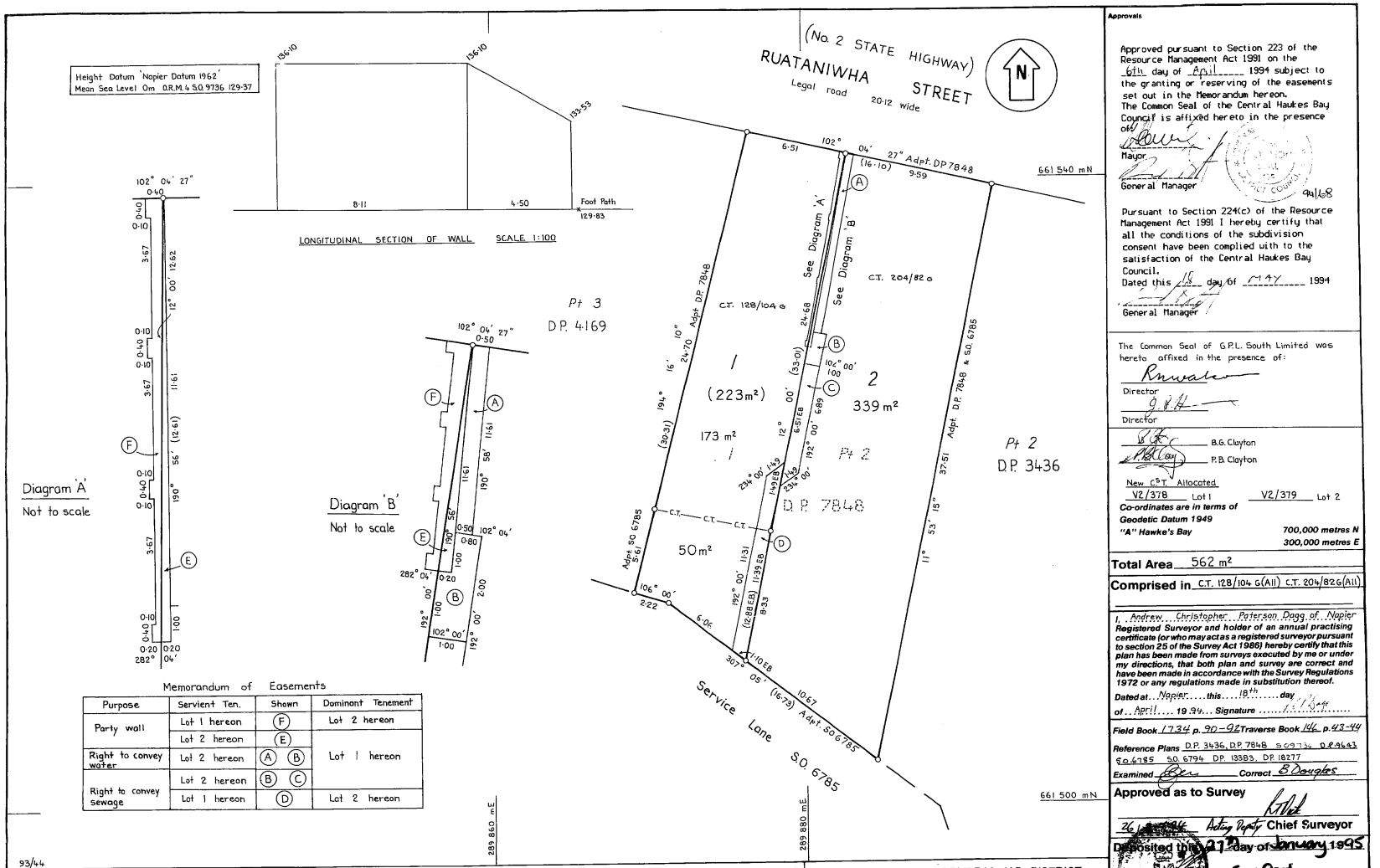
Appurtenant hereto is a right of way created by Transfer 68999

Appurtenant hereto is a right to convey sewage and a party wall right specified in Easement Certificate 619409.6 - 27.1.1995 at 1.32 pm

Subject to a right to convey water over parts marked A & B and a right to convey sewage over parts marked B & C and to a party wall right over part marked E all on DP 24265 specified in Easement Certificate 619409.6 - 27.1.1995 at 1.32 pm

The easements specified in Easement Certificate 619409.6 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to convey electricity telecommunications and electronic data, over part marked A on DP 499802 in favour of Centralines Limited created by Easement Instrument 10599439.1 - 11.11.2016 at 10:00 am


(No. 2 STATE HIGHWAY)
RUATANIWHA STREET
Legal road 20·12 wide
N
Height Datum 'Napier Datum 1962'
Mean Sea Level Om B.R.M. 4 S.O. 9736 129·37
LONGITUDINAL SECTION OF WALL SCALE 1:100
Foot Path
Diagram 'A'
Not to scale
Diagram 'B'
Not to scale
Pt 3
D.P. 4169
Pt 2
D.P. 3436
D.P. 7848
C.T. 128/104 G
C.T. 204/82 G
See Diagram 'A'
See Diagram 'B'
Adpt. D.P. 7848
Adpt. S.O. 6785
661 540 mN
661 500 mN
289 860 mE
289 880 mE
Service Lane
S.O. 6785
1 (223m²)
2 339 m²
173 m²
50m²
Memorandum of Easements
Purpose | Servient Ten. | Shown | Dominant Tenement
Party wall | Lot 1 hereon | (F) | Lot 2 hereon
Party wall | Lot 2 hereon | (E) | Lot 1 hereon
Right to convey water | Lot 2 hereon | (A) (B) | Lot 1 hereon
Right to convey sewage | Lot 2 hereon | (B) (C) | Lot 1 hereon
Right to convey sewage | Lot 1 hereon | (D) | Lot 2 hereon
93/44
LAND DISTRICT HAWKE'S BAY
SURVEY BLOCK & DIST. XIV WAIPUKURAU
NZMS SHEET No. V23/08·03
LOTS 1 & 2 FORMERLY LOT 1 & Pt LOT 2 D.P. 7848
LOCAL AUTHORITY CENTRAL H.B. DISTRICT
Surveyed by DAGG AND THORN
Scale 1:150 Date April 1994
Approvals
Approved pursuant to Section 223 of the Resource Management Act 1991 on the 6th day of April 1994 subject to the granting or reserving of the easements set out in the Memorandum hereon.
The Common Seal of the Central Haukes Bay Council is affixed hereto in the presence of:
Mayor
General Manager
94/68
Pursuant to Section 224(c) of the Resource Management Act 1991 I hereby certify that all the conditions of the subdivision consent have been complied with to the satisfaction of the Central Haukes Bay Council.
Dated this 16 day of MAY 1994
General Manager
The Common Seal of G.P.L. South Limited was hereto affixed in the presence of:
Director
Director
B.G. Clayton
P.B. Clayton
New C.T. Allocated
V2/378 Lot 1 V2/379 Lot 2
Co-ordinates are in terms of Geodetic Datum 1949
"A" Hawke's Bay 700,000 metres N 300,000 metres E
Total Area 562 m²
Comprised in C.T. 128/104 G(All) C.T. 204/82 G(All)
I, Andrew Christopher Paterson Dagg of Napier Registered Surveyor and holder of an annual practising certificate (or who may act as a registered surveyor pursuant to section 25 of the Survey Act 1986) hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972 or any regulations made in substitution thereof.
Dated at Napier this 18th day of April 19 94 Signature
Field Book 1734 p. 90-92 Traverse Book 146 p. 43-44
Reference Plans D.P. 3436, D.P. 7848 S.O. 9736 D.P. 9643
S.O. 6785 S.O. 6794 D.P. 13383, D.P. 18277
Examined Correct B Douglas
Approved as to Survey
26/4/1994 Acting Deputy Chief Surveyor
Deposited this 27th day of January 1995
District Land Registrar
Instructions
24265
8 MAR 1995
CENTIMETRES

Central Hawkes Bay District Council Rates

Valuation Details		
Valuation Number	1088011600 Old Valuation: 00000000301639	
Valuation Address	63 Ruataniwha Street, Waipukurau,	
Legal Description	LOT 2 DP 24265	
Rating Differential	0	
Type of Improvements	BLDG OI (Meanings)	
Valuations	**Current**	**New**
Land Value	$200,000	$200,000
Improvements	$410,000	$410,000
Capital Value	$610,000	$610,000
Valuation Date	01-09-2021	01-09-2021

Rates for 01/07/2023 - 30/06/2024 rating year

Type	Description (Basis)	Factor	Amount
102	General Rates (C)	610,000.00	$731.57
106	District Land Transport (L)	200,000.00	$302.50
110	Refuse Collection (U)	2.00	$70.26
120	Sewerage Operations Rate (U)	2.00	$2,052.00
140	Stormwater Operations (C)	610,000.00	$312.32
150	Water Supply Operations (U)	2.00	$2,023.08
169	Recycling Collection Rate (U)	2.00	$277.28
173	District UAC (U)	1.00	$431.77
		Total Rates Levied	**$6,200.78**
		Rates Last Year	$5,506.16
		Instalments YTD	$6,200.78
		Current Instalment	$1,550.19

Projected Three Year Plan Rates 2024-2025

Type	Description (Basis)	Factor	Estimated Amount
102	General Rates (C)	610,000.00	$975.57
106	District Land Transport (L)	200,000.00	$357.26
110	Refuse Collection (U)	2.00	$107.38
120	Sewerage Operations Rate (U)	2.00	$2,600.94
140	Stormwater Operations (C)	610,000.00	$287.13
150	Water Supply Operations (U)	2.00	$2,589.46
169	Recycling Collection Rate (U)	2.00	$266.70
173	District UAC (U)	1.00	$445.30
		Estimated Next Year Levy	**$7,629.74**

Rates History

Year	Land Value	Capital Value	Annual Rates
2022/2023	$200,000	$610,000	$5,506.16
2021/2022	$108,000	$450,000	$5,196.36
2020/2021	$108,000	$450,000	$4,918.60
2019/2020	$108,000	$450,000	$4,876.84
2018/2019	$108,000	$450,000	$5,139.64
2017/2018	$108,000	$450,000	$4,867.44
2016/2017	$108,000	$109,000	$4,025.35
2015/2016	$112,000	$220,000	$4,269.41
2014/2015	$112,000	$220,000	$4,177.55
2013/2014	$112,000	$220,000	$4,181.21

Hawke's Bay Regional Council Rates

The information provided below is from the Hawke's Bay Regional Council, if there are any problems with this information or the rates are not showing for your property, please visit their website or get in contact with them. www.hbrc.govt.nz

Valuation Details	
Valuation Number	1088011600
Valuation Address	63 RUATANIWHA ST, CHB DISTRICT
Legal Description	LOT 2 DP 24265
Rating Differential	0
Type of Improvements	BLDG OI
Valuations	**Current**
Land Value	$200,000
Improvements	$410,000
Capital Value	$610,000

Rates for 01/07/2023 - 30/06/2024 rating year

Type	Description (Basis)	Factor	Rates Cents / Unit	Amount
003	General Rate - Central HB (L)	$200,000.00	0.02323	$46.46
007	Uniform Annual General Charge (U)	1.00	65.89	$65.89
027	CDEM Emergency Management (U)	1.00	43.96069	$43.96
039	Economic Dev Com/Ind CHB (C)	$610,000.00	0.02504	$152.74
098	U.T.T.F.C.S (CHB) Class U3 (L)	$200,000.00	0.03924	$78.48
263	Centrl/Sthn Rivers/Streams (C) (C)	$610,000.00	0.00012	$0.73
288	Regional Cyclone Recovery - Fixed (U)	1.00	55.00	$55.00

Type	Description (Basis)	Factor	Rates Cents / Unit	Amount
289	Regional Cyclone Recovery - Variable (L)	$200,000.00	0.00384	$7.68
			Total Rates Levied	**$450.94**
			Rates Last Year	$396.94
			Instalments YTD	$450.94
			Current Instalment	$450.94

Rates History

Year	Land Value	Capital Value	Annual Rates
2022/2023	$200,000	$610,000	$396.94
2021/2022	$108,000	$450,000	$335.59
2020/2021	$108,000	$450,000	$295.15
2019/2020	$108,000	$450,000	$287.21
2018/2019	$108,000	$450,000	$306.12
2017/2018	$108,000	$450,000	$232.49
2016/2017	$108,000	$109,000	$148.65
2015/2016	$108,000	$109,000	$172.44
2014/2015	$112,000	$220,000	$158.36
2013/2014	$112,000	$220,000	$148.80

CENTRAL HAWKES BAY DISTRICT COUNCIL

Property Map

The information displayed is schematic only and serves as a guide.
It has been compiled from Central Hawkes Bay District Council's records and is made available in good faith, but its accuracy or completeness is not guaranteed.
Cadastral Information has been derived from Land Information New Zealand's (LINZ) Core Record System Database (CRS).

NORTH

Printed: 27/06/2024

Original Sheet Size A4

CENTRAL HAWKES BAY DISTRICT COUNCIL

2019 Aerial Photo Map

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NORTH

Printed: 27/06/2024

Original Sheet Size A4

CENTRAL HAWKES BAY DISTRICT COUNCIL

2015 Aerial Photo Map

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NORTH

Printed: 27/06/2024

Original Sheet Size A4

CENTRAL HAWKES BAY DISTRICT COUNCIL

2013 Aerial Photo Map (Urban Only)

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NORTH

Printed: 27/06/2024

Original Sheet Size A4

CENTRAL HAWKES BAY DISTRICT COUNCIL

2011 Aerial Photo Map

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NORTH

Printed: 27/06/2024

Original Sheet Size A4

CENTRAL HAWKES BAY DISTRICT COUNCIL

2009 Aerial Photo Map (Urban Only)

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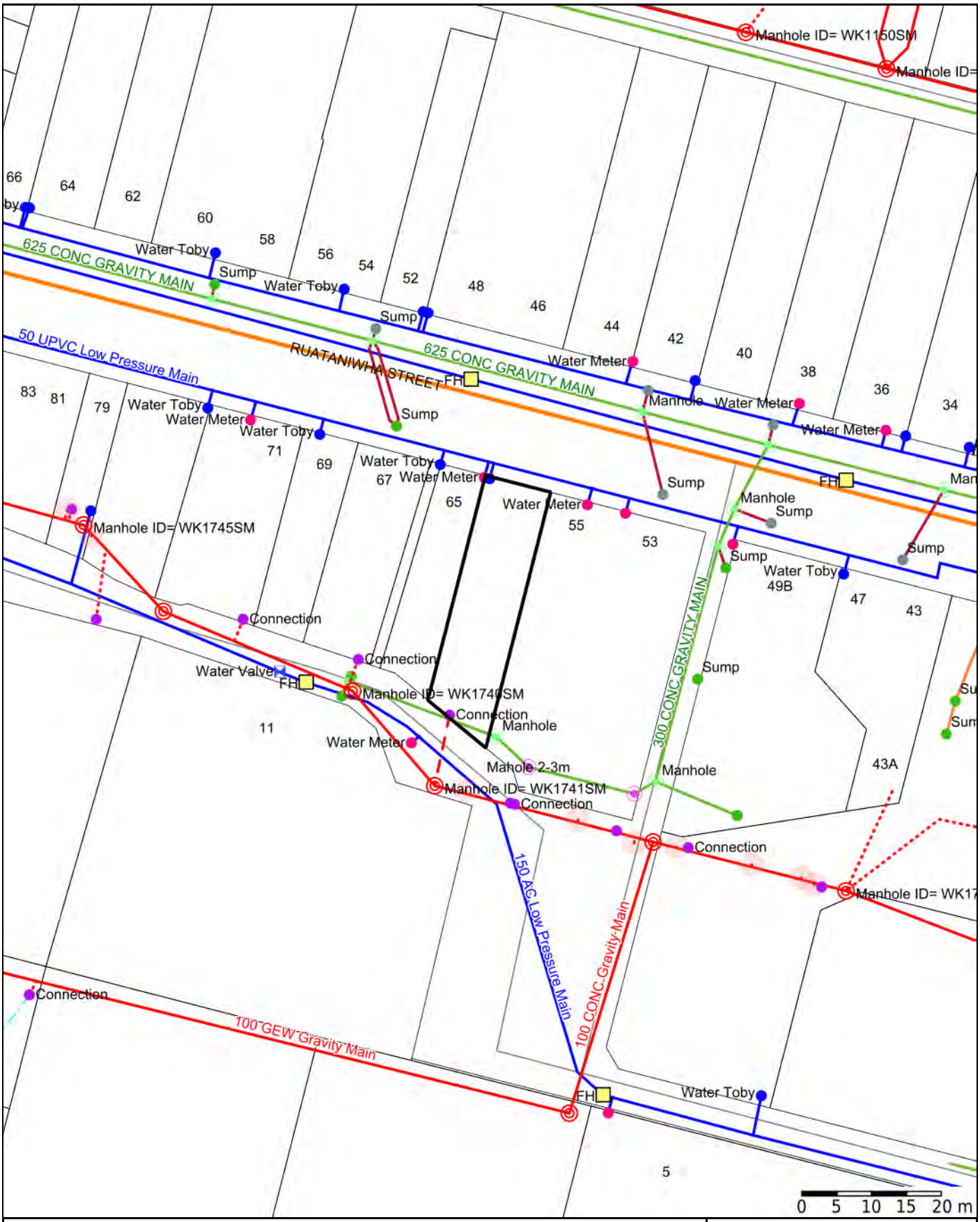
It has been compiled from Central Hawkes Bay District Council's records and is made available in good faith, but its accuracy or completeness is not guaranteed.
Cadastral Information has been derived from Land Information New Zealand's (LINZ) Core Record System Database (CRS).

NORTH

Liquefaction

Original Sheet Size A4



CENTRAL HAWKES BAY DISTRICT COUNCIL

Services Map

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Cadastral Information has been derived from Land Information New Zealand's (LINZ) Core Record System Database (CRS).

NORTH

Printed: 27/06/2024

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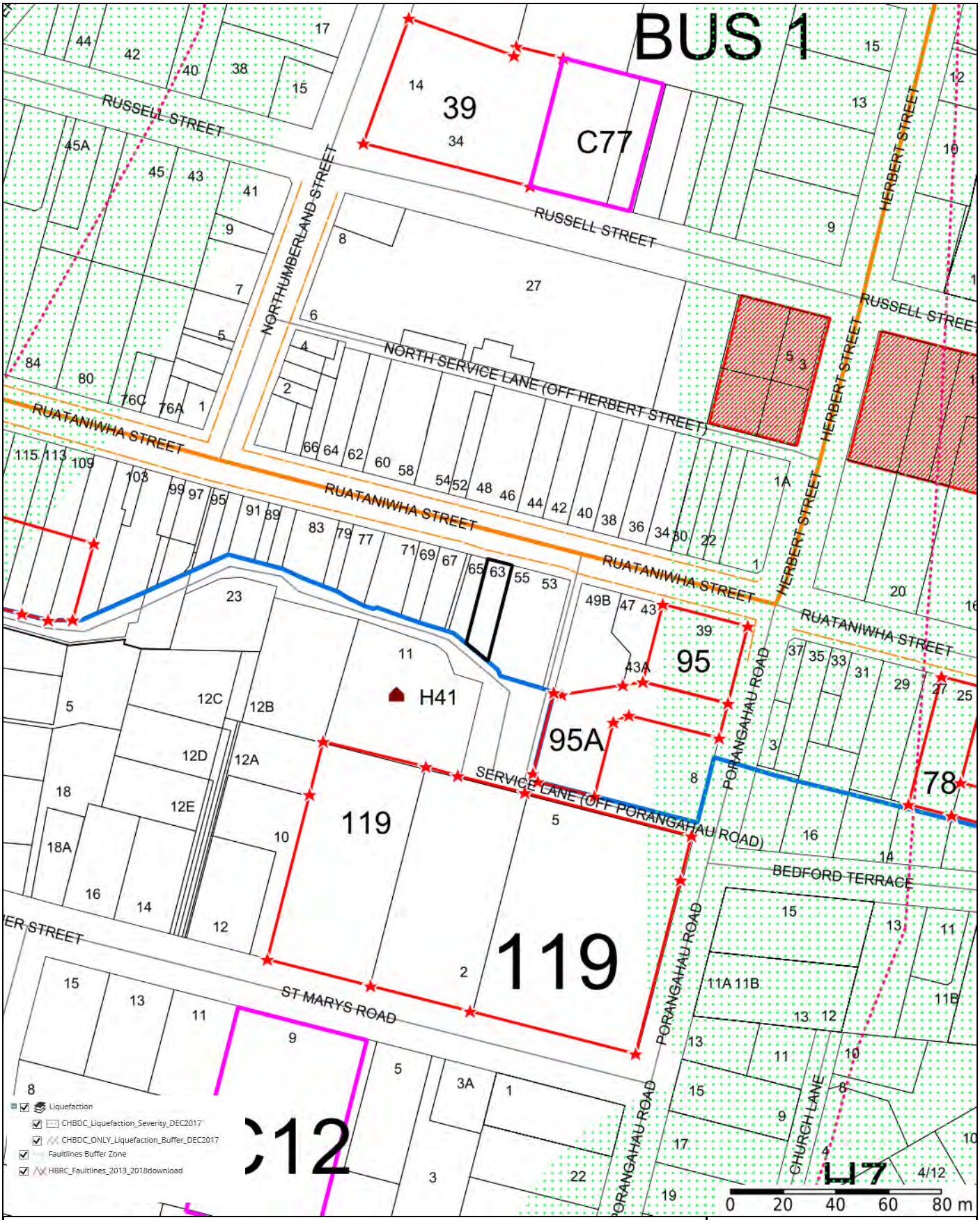

CENTRAL HAWKES BAY DISTRICT COUNCIL

Planning Map

The information displayed is schematic only and serves as a guide.
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NORTH

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CENTRAL HAWKES BAY DISTRICT COUNCIL

Topo Map

The information displayed is schematic only and serves as a guide.
It has been compiled from Central Hawkes Bay District Council's records and is made available in good faith, but its accuracy or completeness is not guaranteed.
Cadastral Information has been derived from Land Information New Zealand's (LINZ) Core Record System Database (CRS).

NORTH

Printed: 27/06/2024

Original Sheet Size A4

PLANNING MAP 34

Designations (see Appendix A)

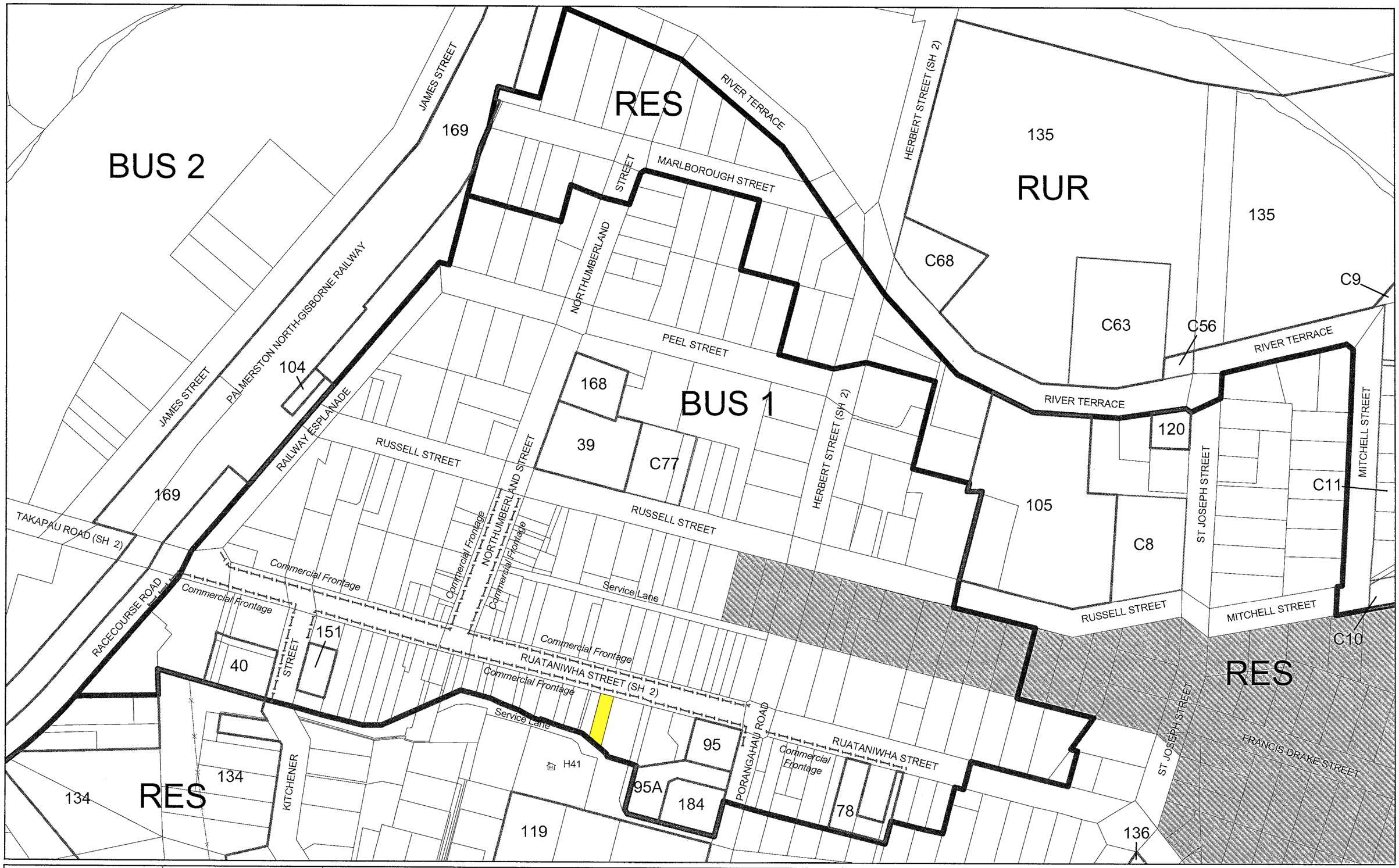
39	Civic Theatre
40	Library
78	Proposed Service Lane
95	Recreation Reserve
95A	Carpark
104	Railway Station
105	School, Russell Street
119	School, Porangahau Rd & St Mary's Rd
120	Court House
134	Hunter Memorial Park
135	Russell Park
136	District Council Reserve
151	Public Parking
168	Waipukurau Community Policing Centre
169	Palmerston North - Gisborne Railway
184	Telecommunication, Radio Communication and Ancillary Purposes

Heritage Items (see Appendix B)

H41	Airlie Mount Dwelling, Airlie Lane

Community Facilities (see Appendix H)

C8	Church, St Josephs Street
C9	A & P Showgrounds
C10	Rugby Park Sports Ground
C11	Waipukurau Lawn Tennis & Squash Club
C56	Waipukurau Scout Hall
C63	CHB Indoor Pool
C68	Waipukurau Memorial Hall
C77	Waipukurau Fire Station



Zones		Designations	Notations	Location Diagram
BUS 1	Business 1	54 / ⊛ 54	Areas of Significant Nature Conservation Value (7)	31 / 30 34 31 / 31
BUS 2	Business 2	Community Facilities	Floodable Area	
RES	Residential	C21 / ⊛ C15	Areas of Outstanding Landscape Views (SV12)	
RUR	Rural		Active Fault; Coastal Margin Line; Commercial Frontage; District Boundary; Kapuni Gas Pipeline	
TSP	Township		Limited Access Road; Stopbank	
	Zone Boundary		26 Sites of Cultural Significance to Tangata Whenua; 29 Archaeological Site; H12 Heritage Items; T2 Notable Tree	

N

0 25 50 75m

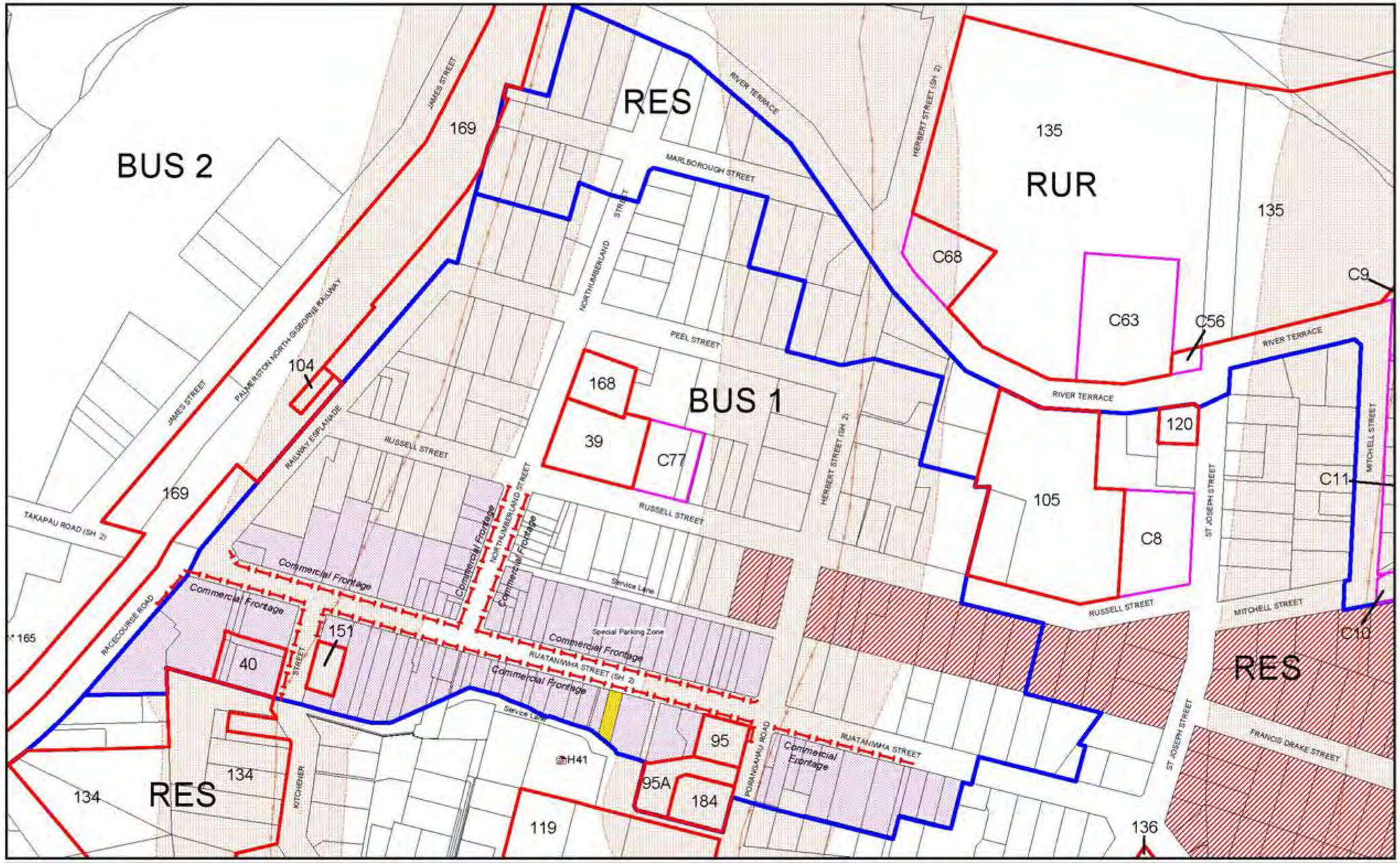
Scale 1:2500

Central Hawke's Bay District Council

Waipukurau

Map No: 34

Date : May 2003



Zones

BUS 1	Business 1
BUS 2	Business 2
RES	Residential
RUR	Rural
TSP	Township
	Zone Boundary

Designations

54 ★ 54

Community Facilities

C21 ★ C15

Notations

- Fault zone
- (7) Areas of Significant Nature Conservation Value
- Floodable Area
- SV.12 Areas of Outstanding Landscape View
- Faultline
- Coastal Margin Line
- Commercial Frontage
- District Boundary
- Kapuni Gas Pipeline
- Limited Access Road
- Stopbank
- Sites of Cultural Significance to Tangata Whenua
- Archaeological Site
- H12 Heritage Items
- T2 Notable Tree

31 / 30 34 31 / 31 Location Diagram

N

0 25 50 75m

Scale 1:2500

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

PROPOSED
Waipukurau
Map No:34
Date : Jan 2010

Planning Snapshot - Central Hawke's Bay Proposed District Plan - Appeals Version - Appeals

10/05/2024

63 Ruataniwha Street, Waipukurau

Valuation No. 4206584

Area 339.00 Ha

Legal Description Lot 2 DP 24265

Aerial View Map

District Plan Zone

Town Centre Zone

Non District Plan Layers

Statutory Acknowledgement Areas

Site Name: Tukituki River and its tributaries within the AOI

More information about the rules that apply to these developments, and details of other developments, are available at https://www.chbdc.govt.nz/

Proposed District Plan (Decisions Version) - Map Legend

Zones

- General Industrial Zone
- General Residential Zone
- General Rural Zone
- Large Lot Residential Zone
- Rural Lifestyle Zone
- Rural Production Zone
- Settlement Zone
- Town Centre Zone

Precincts

- Waipukurau South Precinct

Designations

- Designations (Decisions Version)
- Designations (Awaiting Final Decision From Requiring Authorities)

General District Wide Matters Overlays

- Coastal Environment
- Priority Waterbodies
- Waterbodies Rivers

Natural Hazard and Risk Overlays

Flood Hazard (Flood Risk Areas)

- Zone 1
- Zone 2
- Tsunami Hazard (Near Source Inundation Extent)
- Fault Hazard with Fault Avoidance
- Fault Hazard with Faultlines

Historic and Cultural Values Overlays

- Sites and Areas of Significance to Māori (SASM)
- Marae
- Community Facilities
- Heritage Items
- Archaeological Sites
- Notable Trees

Specific Controls

Waipukurau Aerodrome

- Runway 60m Wide x 850m Long
- Height Restriction 6m - NO BUILD ZONE
- Height Restriction 10m - NO BUILD ZONE
- Height Restriction 6m
- Height Restriction 6m. Design - Category 7

Aerodrome Noise Boundary

- Air Noise Boundary ANB
- Outer Control Boundary OCB
- Aerodrome Landing Area
- Aerodrome Boundary
- Commercial Frontage

Natural Environment Overlays

- Outstanding Natural Landscapes Features (ONL/F)
- Significant Amenity Features (SAF)
- Significant Natural Areas (SNA)
- High Natural Character Areas (HNC)

Energy Infrastructure and Transport

- State Highways
- Gas Transmission Network (Kapuni Gas Line High Pressure)
- Gas Transmission Network (Takapau Pipeline Low Pressure)
- Rail Network
- National Grid Corridor

Roading Hierarchy (One Network Framework)

- Activity Streets
- Interregional Connectors
- Local Streets
- Main Streets
- Peri-urban Roads
- Rural Connectors
- Rural Roads
- Stopping Places
- Urban Connectors

Non District Plan Layers

- Other Territorial Authorities
- Statutory Acknowledgement Areas

CENTRAL HAWKE'S BAY
DISTRICT COUNCIL

Checklist

Your plan may show:

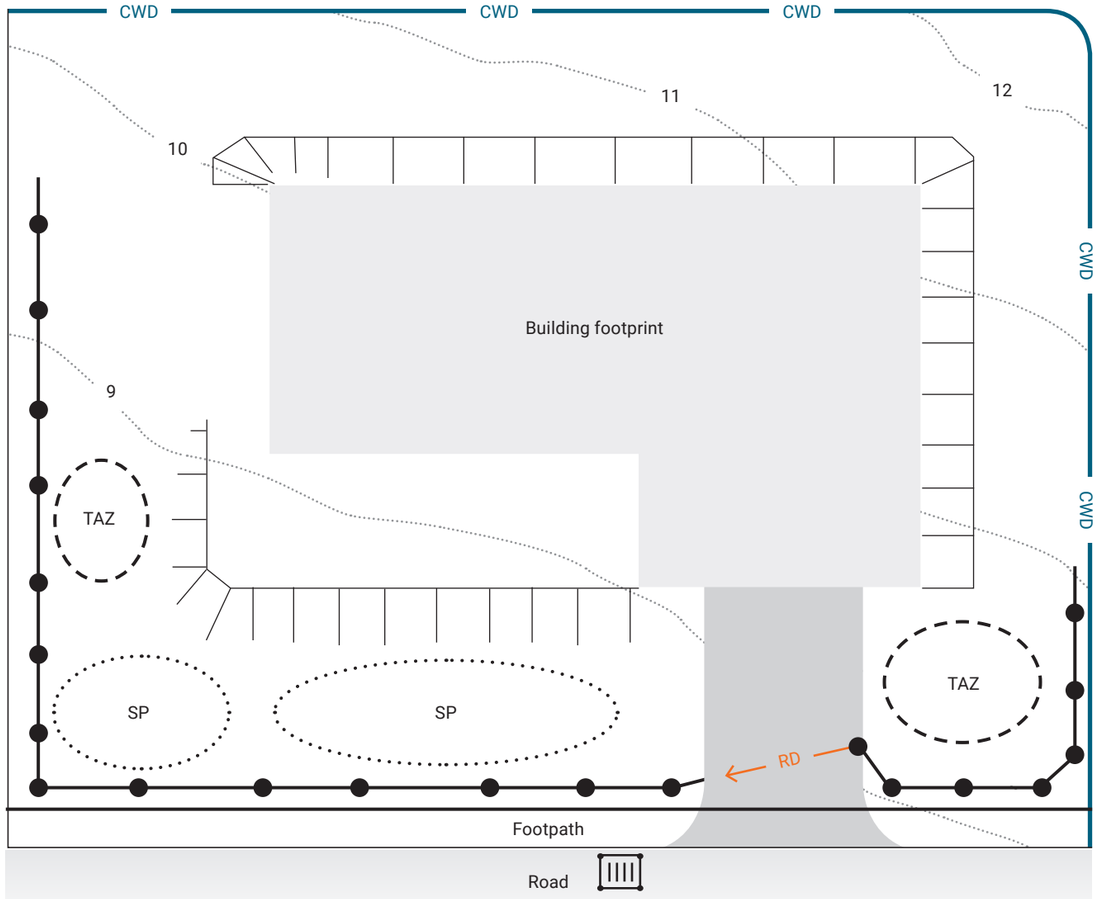
- ✓ A **clean water diversion** around the upslope side of the site to minimise runoff. Ensure the collected flow is directed to a suitable area.
- ✓ A perimeter **silt fence** on the down slope side to intercept any sediment laden runoff – which also helps define the site boundaries.
- ✓ A **stabilised accessway** – a geotechnical material overlain by clean metal to provide an all-weather access to site, minimising mud and sediment transfer to the road surface. Include a diversion bund across the entranceway to redirect any runoff into areas bounded by silt fence.
- ✓ Designated areas within the silt fenced areas for **storage of materials and stockpiles**.
- ✓ Designated **areas for trade activities** to occur such as waste management and washing down equipment.
- ✓ **Protection of the roadside stormwater catchpit** adjoining the site down slope from the accessway.

For more information, go to chbdc.govt.nz search 'erosion'.

Together we thrive!
E ora ngātahi ana!
www.chbdc.govt.nz

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Sample template for an erosion and sediment control plan



CWD Clean water diversion
Stabilised entrance
Silt fence
SP Stockpile area
RD Runoff diversion bund
Catchpit protection
SSF Super silt fence
TAZ Trade activity zone

Erosion and Sediment Control

Guide for building sites

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Stop Sediment Leaving Your Site

The construction of buildings on individual lots can contribute to erosion and sediment generation.

Everyone involved in site construction must do their part to reduce off-site sedimentation that can pollute our environment. A 'building site' includes small areas of earthworks that **do not** require resource consent.

Effective sediment control will prevent sediment and other contaminants from the building site entering the stormwater system, which drains into local streams, the estuary and/or the sea.

More detailed information on erosion and sediment control methods can be found on Council websites – **chbdc.govt.nz**

AVOID building site runoff draining to stormwater sump.

This goes directly to streams causing pollution.

The Law

Both the Building Act 2004 and the Resource Management Act 1991 require site works, buildings and surface water to be managed to avoid discharges.

An erosion and sediment control plan will be required as part of any building application involving site work.

Breaching the law may lead to:

- Failed building inspections
- Time delays
- Extra build costs
- Increased compliance costs

Enforcement action:

- Fines
  - Prosecution of individuals and/or companies, which can result in significant fines or prison sentences for serious offences.

Contractors fined after sediment destroys native fish habitat in Nelson
STUFF, 31 MAY 2018

Hefty fines loom for Auckland property developers polluting waterways, leaving rubbish
1 NEWS, 22 JANUARY 2018

Council blitz on negligent building sites
OUR AUCKLAND, 23 JANUARY 2018

How to control erosion and sediment

Follow the steps below to create and implement an effective erosion and sediment control plan. Use the plan template to outline the methods and tools you will use to prevent erosion and to stop sediment or other contaminants leaving your site.

Before Building Consent

- Assess your building site.
- Develop an Erosion and Sediment Control Plan for your site. This needs to identify how sediment and other contaminants will be retained onsite and prevented from entering the stormwater sump and neighbouring property.
- Attach the **plan** to your building consent application.

Before you start work onsite

- Make sure all subcontractors understand the **plan** and their responsibilities.
- Install erosion and sediment controls **before** clearing the site and starting building work.

During construction

- Check and maintain erosion and sediment controls throughout the build, amend your plan if you need to improve controls or adapt to site changes.
- Manage rubbish, chemicals and building wastes – especially concrete washings and zinc roof filings.
- Connect all downpipes to the stormwater network as soon as possible.
- Protect stormwater inlets from muddy surface water runoff.

Before you leave the site

- Stabilise the site.
- Decommission your erosion and sediment control measures.

Detailed information is found within the full erosion and sediment control guide.

Find it online at chbdc.govt.nz/erosion

Name: BNZ Branch Properties **RM:** 150005

Valuation Number: 10880 11600

Site Address: 63 Ruataniwha St, Waipukurau. BC: _____

Application For: ? Date Lodged: 27/1/15.

Consent Granted: __/__/__ CONSENT NOT REQUIRED. Letter Sent: __/__/__

Bond Required: Yes / No **Paid:** __/__/__

Bonded conditions of consent: _____

Conditions to be monitored	Inspection notes	Date completed

Bond Refunded: __/__/__

Copy to Rates: ☐ __/__/__: _____ Initial Processed: ☐ __/__/__ _____Initial

To Filing ☐ __/__/__: ___Initial

Angela McFlynn

From: Angela McFlynn
Sent: Thursday, 12 February 2015 2:51 p.m.
To: 'Nick Jones'
Subject: RE: Ref RM150005 Additional Information For the Attention of Angela McFlynn

Thanks Nick,

Looks like no consent is necessary so I will arrange for transfer of the deposit to the BC application account.

Kind Regards,

Angela McFlynn SENIOR CONSENT PLANNER / LICENSING INSPECTOR Central Hawke's Bay District Council

-----Original Message-----
From: Nick Jones [mailto:njones@rcp.co.nz]
Sent: Thursday, 12 February 2015 11:10 a.m.
To: Angela McFlynn
Subject: RE: Ref RM150005 Additional Information For the Attention of Angela McFlynn

Thanks Angela,
The overall building footprint is approximately within 10sqm of the existing building, but is single storey whereas the existing building is ground floor and first floor. The parking allowance for up to 3 cars remains unchanged from the existing allowance. The attached drawings A110, A200 and A300 detail the extent of the canopy which is approximately the same coverage as the existing veranda.

Regards,
Nick.

-----Original Message-----
From: Angela McFlynn [mailto:angelam@chbdc.govt.nz]
Sent: Thursday, 12 February 2015 10:39 a.m.
To: Nick Jones
Subject: RE: Ref RM150005 Additional Information For the Attention of Angela McFlynn

Thanks Nick - just to clarify though, the site is within the Commercial Frontage Area of the business 1 zone, therefore the MAXIMUM setback is 5m, i.e., the building is permitted if it is less than 5m from the road boundary. Therefore provided that the floor area is not increasing as a result of the redevelopment, and the parking availability is not reducing, we do not need to assess the carparking on the site, and the new building can proceed with existing use rights (with respect to the likely shortage in carparking spaces) due to the continued use of the new building for a commercial activity.

Can you also confirm for me that the new building will have a verandah similar to the old building - also a requirement in the Commercial Frontage Area.

If we can establish that resource consent is not required I will arrange for the $900.00 deposit paid to be transferred to the building consent to cover any additional costs in the processing.

Kind Regards,

Angela McFlynn SENIOR CONSENT PLANNER / LICENSING INSPECTOR Central Hawke's Bay District Council

Angela McFlynn

From: Nick Jones <njones@rcp.co.nz>
Sent: Thursday, 12 February 2015 11:10 a.m.
To: Angela McFlynn
Subject: RE: Ref RM150005 Additional Information For the Attention of Angela McFlynn
Attachments: BNZWA_20141111_C&T (Arch Base Build_R1).pdf

Follow Up Flag: Follow up
Flag Status: Completed

Thanks Angela,
The overall building footprint is approximately within 10sqm of the existing building, but is single storey whereas the existing building is ground floor and first floor. The parking allowance for up to 3 cars remains unchanged from the existing allowance. The attached drawings A110, A200 and A300 detail the extent of the canopy which is approximately the same coverage as the existing veranda.

Regards,
Nick.

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From: Angela McFlynn [mailto:angelam@chbdc.govt.nz]
Sent: Thursday, 12 February 2015 10:39 a.m.
To: Nick Jones
Subject: RE: Ref RM150005 Additional Information For the Attention of Angela McFlynn

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Kind Regards,

Angela McFlynn SENIOR CONSENT PLANNER / LICENSING INSPECTOR Central Hawke's Bay District Council

-----Original Message-----
From: Nick Jones [mailto:njones@rcp.co.nz]
Sent: Thursday, 12 February 2015 10:28 a.m.
To: info
Cc: Angela McFlynn
Subject: Ref RM150005 Additional Information For the Attention of Angela McFlynn
Importance: High

Angela,
Further to your letter dated 2nd Feb 2015 (attached), please find our response as follows:

1a) Please refer drawing C001 R1 issued with building consent.
1b) Opus only has the attached drawing from the property council file. The current property does not have any specific car parking spaces marked out, just a general rear area that can accommodate 2-3 cars.
1c) The proposal complies with the District Plan rules except for following:

i) The building is less than 5m from road boundary but matches the existing building face which is also in line with the adjoining buildings.

Regards,
Nick Jones.

Nick Jones
Senior Project Manager
M 021 907 754

Resource Co-ordination PartnershipLtd (trading as RCP) Level 5, The Old Woolhouse,
139 - 141 Featherston St,
Wellington
PO Box 5667, Lambton Quay, Wellington, 6145, New Zealand T +64 4 473 1850, F +64 4 473 0154, W www.rcp.co.nz P Please consider the environment before printing this email.

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street, PO Box 127, Waipawa 4240, New Zealand
Telephone: (06) 857-8060, Fax: (06) 857-7179
Email: info@chbdc.govt.nz
www.chbdc.govt.nz

2 February 2015

BNZ Branch Properties
c/-PO Box 5667
Lambton Quay
Wellington 6145

Our Ref: RM 150005

Attention: N Jones

Dear Sir

RESOURCE CONSENT APPLICATION: Demolition existing building and construct new building, 63 Ruataniwha Street, Waipukurau

Section 88 Resource Management Act 1991

Pursuant to Section 88(3) of the Resource Management Act 1991 the above application, lodged with Council on 27 January 2015, is considered to be incomplete. In order for Council to accept the application for processing, the following additional information relating to the proposal is required:

1. The information provided with the application is not sufficient to determine the reason for the application for resource consent. Please provide the following information to allow the application to be considered by Council:

   a) A detailed site plan showing the proposed building and parking layout within the site.
   b) Provide details of the existing site layout, including total floor area and number of parking spaces currently provided on the site.
   c) Include details of the District Plan rules that are unable to be complied with, and a detailed assessment of the effects of those non-compliances.

Enclose for your information is a checklist summarizing the information required to be provided with your application.

Please advise us if you do not wish to proceed with the application and we will refund the deposit to you. If we have not received the requested information, or confirmation that you intend to provide the information, by 2 March 2015 we will arrange for the deposit to be refunded.

Please do not hesitate to contact me if you have any queries.

Yours faithfully

Angela Mcflynn
Senior Consent Planner

RM 150005

CENTRAL HAWKES BAY DISTRICT COUNCIL
RUATANIWHA STREET, PO BOX 127, WAIPAWA, 4170, NEW ZEALAND
TELEPHONE: (06) 857 8060, FAX: (06) 8577179
EMAIL: info @chbdc.govt.nz

DEPOSIT:$900 Gst Incl.

RESOURCE CONSENT APPLICATION

(under the Resource Management Act 1991)

Applicants Name: BNZ BRANCH PROPERTIES

SITE ADDRESS

Street/Road Name: 63 RUATANIWHA ST. WAIPUKURAU.

Street/Rapid No: _____ **Phone:** 021 907 754 **E-mail** njones@rcp.co.nz

MAILING ADDRESS (if different than above) RCP.
PO Box 5667. Wellington 6145.

LEGAL DESCRIPTION

Lot No: 2 **DP:** 24265 **Section:** ____ **Block:** ____ **Survey District:** _____

Valuation Roll No: _____

Description of Proposal
(Please describe your proposal in detail including the reasons for requiring this resource consent)

Demolition of existing structure and construction of a new BNZ Bank, single storey structure.

Assessment of Environmental Effects
Please describe the environmental effects resulting from the proposal (For example will there be any effects on character, visual amenity, traffic, noise, dust or odour, vegetation, earthworks):

Traffic management during the works.
Dust during demolition.
Noise during construction.
QMS risk matrix attached.

(Continue on separate sheet if necessary)

Proposed Measures to Avoid, Remedy or Mitigate Effects

Please describe in detail any measures proposed to avoid, remedy or mitigate any adverse effects which will result from the change/cancellation of consent conditions (for example screen planting, landscaping, sediment and erosion controls):

Proposed design complies with district plan requirements for new retail development.

Structural works will be to be carried out to support the adjacent property for the construction period.

Consent has been obtained from the following affected persons.
An Affected Persons form is to be completed by all those listed
& their signatures are to be shown on the application form, site plan and assessment of environmental effects.

(Name)

(Name)

(Name)

Signature of Applicant: N Jones. **Date:** 23 · 1 · 2015

18 December 2014

Central Hawke's Bay District Council
P O Box 127
WAIPAWA 4240

Dear Sir,

Re Building Consent 55- 57 Ruataniwha Street Waipukurau

This letter is to give permission for BNZ Branch Properties Limited and or their consultants Opus and RCP to lodge and uplift necessary consents to erect a wall structure on the above property where the existing wall of their building provides support for our building.

The works are included in but not limited to the plans produced by Opus titled Project 4-M0633.02 S300 to S302 and other ancillary plans, specifications and documents needed to obtain consent for such works, which will form part of their consent application on the adjacent property 63 Ruataniwha Street.

Our property is contained in certificate of title HBB1/553 and is known as Lot 2-3 Deposited Plan 3436 and Part Lot 28 Deposited Plan 169

I hereby confirm I am authorised to provide this permission by the Trustees David Russell Dicks and Peter Richard Watson

Yours sincerely

Bruce Nelson

Strategy and Business Performance
T. +64 9 924 8326
M. 021 283 1000 **E** Grant_Massey@bnz.co.nz
80 Queen Street , Auckland City, Auckland
Private Bag 92209, Auckland 1142, New Zealand

18 December 2014

Central Hawke's Bay District Council
P O Box 127
WAIPAWA 4240

Dear Sir,

Re Building Consent 63 Ruataniwha Street Waipukurau

This letter is to give permission for RCP and/or Opus Consultants to lodge and uplift necessary consents to erect a building in the above property on behalf of BNZ Branch Properties Limited.
Our property is contained in certificate of title HBV2/379 and is described as Lot 2 Deposited Plan 24265.

The consent being lodged also includes work on the adjacent property at 55-57 Ruataniwha Street which is contained in certificate of title HBB1/553 and is described as Lot 2-3 Deposited Plan 3436 and Part Lot 28 Deposited Plan 169. We understand the neighbour has provided his approval for this independently.

Yours sincerely

Grant Massey
Property Manager
Bank of New Zealand

DDI: 09 9280515
Mobile: 021 283 1000

DML (2011) LIMITED

FULLY LICENSED ASBESTOS REMOVERS

ASBESTOS INSPECTION

63 Ruataniwha Street Waipukurau

6 ROY STREET PALMERSTON NORTH 4410 P.O. BOX 2062 PALMERSTON NORTH 4440
PHONE 06 358 1401 FAX 06 358 0267 EMAIL DMLTD@XTRA.CO.NZ

DML (2011) LIMITED
FULLY LICENSED ASBESTOS REMOVERS

CONTENTS

LIST OF APPENDICIES

6 ROY STREET PALMERSTON NORTH 4410 P.O. BOX 2062 PALMERSTON NORTH 4440
PHONE 06 358 1401 FAX 06 358 0267 EMAIL DMLTD@XTRA.CO.NZ

DML (2011) LIMITED
FULLY LICENSED ASBESTOS REMOVERS

DML (2011) Limited was commissioned by Nicholas Chapple Humphries Construction, Palmerston North on instructions from Opus International to carry out an inspection of 63 Ruataniwha Street, Waipukurau.

Matt Leamy from DML (2011) Limited carried out the inspection for this report on Wednesday 9th July 2014.

The inspection was conducted on the basis of the condition of the materials at the time of inspection and the future anticipated activities at the site.

1.1 Background & Purpose

The purpose of this inspection was to comply with the current regulations to identify hazards prior to the removal and or demolition of the building.

1.2 Scope

Carry out a full visual inspection of the building and take samples as required to determine the presence of asbestos materials.

Record and report the findings and deliver the inspection report to the client.

6 ROY STREET PALMERSTON NORTH 4410 P.O. BOX 2062 PALMERSTON NORTH 4440
PHONE 06 358 1401 FAX 06 358 0267 EMAIL DMLTD@XTRA.CO.NZ

2 RESULTS

A full visual, non intrusive inspection was carried out of the exterior and interior of the building.

2.1 External Soffit to the Front Elevation
The soffit was visually identified and asbestos cement board.

2.2 Interior
No asbestos material was found to be present.

3 RECOMMENDATIONS

The recommendations, conclusions or stability of asbestos materials contained in the report shall not abrogate a person of their responsibility to work in accordance with Statutory Requirements, Codes of Practice, Guidelines, Material Safety Data Sheets, Work Instructions or reasonable work practices.

3.1 All the asbestos material identified should be removed prior to any removal or demolition work being undertaken.

3.2 The asbestos should be removed and disposed of by a licensed contractor in accordance with the current guidelines on asbestos removal.

4 STATEMENT OF LIMITATIONS

DML (2011) Limited has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted and the report has been prepared in response to specific instructions from the client to whom this report is addressed.

The investigation has been based on the inspection conducted in accordance with relevant guidelines and standards and normal industry practice having regard to the client instructions. Interpretations of conditions are based on the data from the inspection and to the best of our knowledge they represent a reasonable interpretation of the condition of the site as inspected.

This report has been provided for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

DML (2011) LIMITED

FULLY LICENSED ASBESTOS REMOVERS

Appendix A

OSH Certificate of Competency

CERTIFICATE OF COMPETENCE

HEALTH AND SAFETY IN EMPLOYMENT ACT 1992 AND REGULATIONS 1995

Matthew Thomas Leamy

Has satisfied the Secretary of Labour's requirements and is hereby granted a certificate of competence for

Restricted work involving asbestos

RESTRICTIONS

"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"

	DD	MM	YY
DATE OF ISSUE	19	06	2012
EXPIRY DATE	19	06	2016

FOR SECRETARY OF LABOUR

07066

Appendix B

6 ROY STREET PALMERSTON NORTH 4410 P.O. BOX 2062 PALMERSTON NORTH 4440
PHONE 06 358 1401 FAX 06 358 0267 EMAIL DMLTD@XTRA.CO.NZ

6 ROY STREET PALMERSTON NORTH 4410 P.O. BOX 2062 PALMERSTON NORTH 4440
PHONE 06 358 1401 FAX 06 358 0267 EMAIL DMLTD@XTRA.CO.NZ

DML (2011) LIMITED

FULLY LICENSED ASBESTOS REMOVERS

Legislative Requirements

LEGISLATIVE REQUIREMENTS – ASBESTOS

This document has been prepared for information only and is under regular review due to frequent changes in legislation and guidance. It contains information relating to the column headings only and not, for instance, in relation to asbestos removal. It is the duty of the employers, premise owners and controllers of premises etc to ensure they are familiar with the latest applicable legislation and guidance.

Asbestos Legislation and Guidelines	Asbestos Survey Requirements	Asbestos Re-survey Requirements	Reporting Requirements	Labelling/Signage Requirements
Health and Safety in Employment Act 1992; Health and Safety in Employment (Asbestos) Regulations 1998; and Department of Labour – OSH Guidelines for the Management and Removal of Asbestos 1999	Property owners, with the exception of owners of private homes should: Take all practicable steps to identify asbestos products within their properties and record the location and condition of asbestos, once identified, in a recorded for the building in accordance with these OSH Guidelines; inform tenants of the presence of asbestos and of any action on asbestos which may become necessary; ensure that all contractors required to do work are informed of the presence of asbestos. Employers, and other persons who or that control places of work must take all practicable steps to ensure that, when it is necessary to know whether a substance is or is not asbestos, the substance is tested in accordance with a method specified by a New Zealand accredited laboratory for the identification of asbestos. Employers shall: Provide and maintain, so far as is practicable, safe and healthy work environments and practices; consult with employees, and adopt sound practices to control exposure to airborne asbestos; Comply with provisions of the Health and Safety in Employment Act 1992. Employers should: Liaise, where appropriate, with property owners on a continuing basis, so that the existence and condition of asbestos in the working environment is known.	Under OSH Guidelines: Visual inspection of ACM should be undertaken annually to three yearly. The re-inspection may be required for less than this period if the ACM is likely to be disturbed. Risk Management Plan to be updated regularly.	Under OSH Guidelines: A record of all information gathered relating to the presence and condition of asbestos in the building should be made and maintained by the property owners and occupiers. The record should, where appropriate, contain details on identification, location, assessment of exposure risk, monitoring results risk management plan (regularly updated), where possible, the presence of asbestos should be marked clearly on building plans. These plans should be made available to employees including trades people and to outside contractors.	Under OSH Guidelines: Where it has been decided that asbestos materials are to be left intact, labelling that is clearly visible should indicate that asbestos is present. A reasonable interpretation must be placed on this requirement. Similarly, materials suspected of containing asbestos but found to be asbestos-free should be identified as such. This will avoid confusion and ensure that the correct measures are taken for protection against the hazards that these substances may exhibit.

ARCHITECTURAL SPECIFICATION

of work to be done and materials to be used in carrying out the works shown on the accompanying drawings

BNZ Broadway Development *(BASE BUILD)*

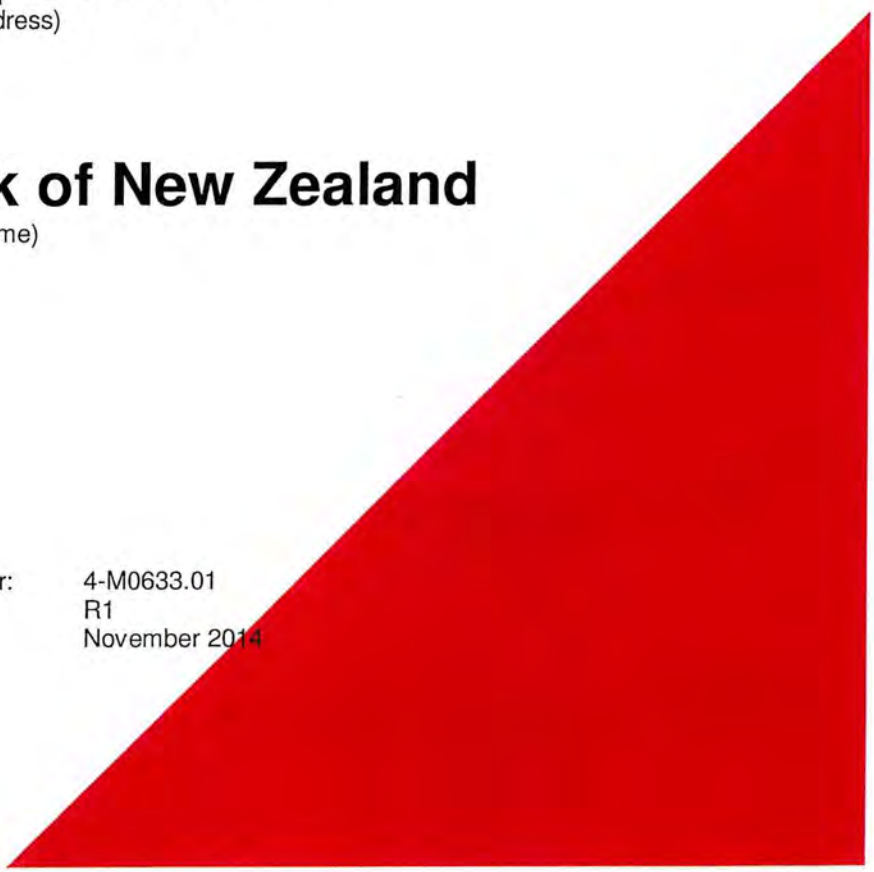
(project name)

63 Ruataniwha Street, Waipukurau

(project address)

Bank of New Zealand

(owners name)



Job Number: 4-M0633.01
Revision R1
Date: November 2014

Document Status				
Revision Number	**Date**	**Author/s**	**Section revised**	**Description**
R1	11-11-14	*Charles Fisher*		Original Issue

Prepared By

Charles Fisher
Senior Architectural Designer

Opus International Consultants Ltd
Auckland Architecture Office
The Westhaven Building, 100 Beaumont St,
Westhaven
PO Box 5848, Auckland 1141
New Zealand

Reviewed By

Andy Marchant
Senior Designer

Telephone: +64 9 355 9500
Facsimile: +64 9 355 9584

Date: 11-11-2014
Reference:
Status: Construction

Approved for Release By

Stefan Geelen
Project Manager

1012 TABLE OF CONTENTS

APPENDICES:

1101 TENDER FORM

To: ~

Care of: ~

Postal: ~

Street: ~

Email: ~

Facsimile: ~

Contractor: .....

Tender for: **BNZ Waipukurau Development**

Location: **63 Ruataniwha Street, Waipukurau**

I/we offer to carry out the whole of the contract works in accordance with the tender documents for the sum of: .....
(In words)
.....

Amount excluding Goods & Services Tax: $.....

Goods & Services Tax: $.....

Total including Goods & Services Tax $.....

1. I/we will achieve practical completion in ..... weeks/working days from the date of possession of the site

2. I/we acknowledge receipt of notices to tenderers numbered: .....to..... and have allowed for these notices in our tender.

3. I/we confirm we have or will arrange and maintain public liability insurance in the joint names of the owner and the contractor until the contract works are completed and the defects liability period has ended.

4. Additional information requested in the contract conditions concerning the following is attached to this tender form:
   - Tender summary
   - List of proposed subcontracts and subcontractors
   - Details of margins applying to monetary allowances
   - Hourly charge rates

Tenderer: .....
(Name)

Signed: .....
(For the tenderer) (Date)

Position: .....
(Capacity of signatory)

Address: .....
(Street)
.....
(Postal)
.....
(Telephone) (Facsimile) (Mobile) (Email)

1102 TENDER SUMMARY (CBI FORMAT)

Contractor: _____

Tender for: **BNZ Development at 63 Ruataniwha Street, Waipukurau**

CBI Reference	Trade / Work Section	Amount
1000 GENERAL		
1200	General (On-site overheads)	$
1250	Scaffolding	$
2000 SITE		
2110	Demolition	$
2240	Excavation	$
2310	Piling	$
3000 STRUCTURE		
3111	Formwork	$
3112	Reinforcement for in situ concrete	$
3121	In situ concrete	$
3122	Sprayed concrete	$
3140	Precast concrete	$
3150	Composite concrete	$
3320	Concrete masonry	$
3410	Structural steel	$
3421	Light steel framing	$
3800	Timber framing	$
3821	Framing	$
3821	Fixings	$
3821	Trusses	$
4000 ENCLOSURE		
4100	Tanking	$
4111	Asphaltic tanking	$
4121	Liquid tanking	$
4131	Sheet tanking	$
4161	Damp proof membrane	$
4161	Wraps and underlays	$
4200	Wall cladding	$
4210	Curtain walling	$
4220	Timber wall cladding	$
4230	Flat sheet cladding	$
4240	Profiled sheet cladding	$
4280	Plaster cladding	$

4290	Trim and finishing work	$
4250	Proprietary cladding system	$
4260	Masonry veneer cladding	$
4261	Brick cladding	$
4263	Concrete masonry cladding	$
4270	Stone cladding	$
4300	Roofing	$
4310	Sheet roofing	$
4320	Tile roofing	$
4400	Membrane roofing	$
4500	Exterior windows and doors	$
4510	Timber windows and doors	$
4520	Aluminium windows and doors including glazing	$
4530	Steel windows and doors	$
4554	Screens, shutters and louvres	$
4568	Skylights and roof windows	$
4600	Glazing	$
4611	Glazing	$
4614	Glass balustrades	$
4614	Glass screens	$
4700	Insulation	$
4910	Metalwork	$
4821	Flashings	$
4911	Steel metalwork	$
4924	Stainless steel metalwork	$
4933	Aluminium metalwork	$
5000 INTERIOR		
5100	Wall and ceiling linings	$
5111	Fibre cement linings	$
5112	Fibrous plaster linings	$
5113	Plasterboard linings	$
5120	Timber linings	$
5150	Trim and finishing work	$
5210	Partitions	$
5211	Proprietary partitions	$
5211	Steel partitions	$
5212	Timber partitions	$
5214	Toilet partitions	$
5231	Interior doors and windows	$
5310	Suspended ceilings	$
5430	Floors	$

5511	Cabinetry	$
5512	Furniture, fittings and equipment	$
5574	Stairs, handrails and balustrades	$
5521	Hardware	$

6000 FINISHES

6200	Tiling	$
6310	Overlay flooring	$
6410	Resilient surfacing	$
6511	Carpeting	$
6700	Painting	$
6750	Wall coverings	$
6740	Protective coatings	$
6742	Fire rated coatings	$
6744	Corrosion protection systems	$
6810	Waterproofing and underlays	$

7000 SERVICES

7100	Plumbing (Water supply)	$
7120	Water pipework	$
7120	Tanks and cylinders	$
7151	Sanitaryware, tapware and accessories	$
7200	Gasfitting	$
7211	Gas pipework	$
7221	Gas appliances	$
7300	Fire protection	$
7312	Fire sprinklers	$
7350	Fire detection systems	$
7380	Fire protection appliances	$
7400	Drainage (Liquid disposal)	$
7421	Sanitary plumbing	$
7411	Rain water systems	$
7461	Foul water drainage	$
7451	Storm and ground water drainage	$
7500	Heating and cooling	$
7540	Hydronic heating system	$
7552	Electric under floor heating	$
7556	Solid fuel space heating	$
7550	Other heating and cooling	$
7600	Ventilation and air conditioning	$
7700	Electrical	$
7720	Power distribution	$

7720	Electrical distribution and switch boards	$
7740	Light fittings	$
7761	Electrical appliances	$
7800	Communications, data, security and audio visual	$
7900	Lifts and escalators (Transport)	$
8000 EXTERNAL		
8100	Retaining walls	$
8200	Roads and pavings	$
8210	Roading, driveways and preparation	$
8220	Vehicles crossings	$
8251	Road marking	$
8300	Landscaping	$
8320	Hard landscape	$
8310	Soft landscape	$
8400	Pools	$
	Subtotal	**$**
	Margins (Off-site overheads and profit)	$
MONETARY ALLOWANCES - Prime Cost Sums		
PCS#01	Prime cost sum for the supply of ~	$
PCS#02	Prime cost sum for the supply of ~	$
MONETARY ALLOWANCES - Provisional Sums		
PS#01	Provisional Sum for ~	$
PS#02	Provisional Sum for ~	$
MONETARY ALLOWANCES - Contingency Sum		
	Contingency Sum	$
	Contract Price (excluding Goods and Services Tax)	**$**

Transfer this figure to the Tender Form

Tenderer: _____ (name) _____ (capacity of signatory)

Signed: _____ (for the tenderer) _____ (date)

1220 PROJECT

1. GENERAL

This general section describes the project including:
- A description of the work
- Site description, features and restrictions
- Design parameters for design by contractor
- Archaeological discovery

1.1 READ ALL SECTIONS TOGETHER
Read all general sections together with all other sections.

Description of the work

1.2 SCOPE OF THE WORK
A new infill building shell to be constructed on a vacant building site between two existing buiildings for a new BNZ Bank, all as detailed on the accompanying working drawings.

1.3 NO RESTRICTED BUILDING WORK
This project does not include Restricted Building Work.

Site

1.4 SITE
The site consists of An existing flat vacant site between two infill shops where a previous building has been demolished, as shown on the Site Plans

1.5 LEGAL DESCRIPTION
The site of the works, the street address and the legal description are shown on the drawi ngs.

1.6 EXISTING BUILDINGS
The previous existing building has been demolished
Refer to Site Plan drawing.

1.7 EXISTING SERVICES
The following are the network utility services:

Electrical:	Existing Electrical mains in road
Telecommunication:	Existing Electrical mains in road
Water:	Existing water mains in road
Gas:	Existing gas mains in road
Stormwater:	Existing stormwater mains in road
Foul water:	Existing sewer mains in road

The services are also shown on the working drawings

1.8 SITE FEATURES
Existing vacant lot between existing infill shops with rear access lane

Site environment - Wind

1.9 WIND DESIGN PARAMETERS - SPECIFIC DESIGN
The design wind pressures are to AS/NZS 1170.2.

Site environment - Durability

1.10 EXPOSURE ZONE
The exposure zone is to NZS 3604, Section 4 Durability, 4.2 Exposure zones and NZBC E2/AS1.
The site zone is: Zone C

Archaeological discovery

1.12 ANTIQUITIES AND ITEMS OF VALUE
Report the finding of any fossils, antiquities and other items of value, to the Contract Administrator. All to remain undisturbed until approval is given for removal.

Pre-1900, items or evidence of human activity on the site, come under the Historic Places Trust Act 1993. If such items or evidence is discovered work must stop immediately and the Contract Administrator must be notified immediately. The site maybe classified as an Archaeological Site under the Act, and the Contract Administrator or Owner must contact the NZ Historic Places Trust for authority to proceed.

Post-1900 items remain the property of the owner, pre-1900 items may remain the property of the owner or the Crown subject to what is found.
There is no know archaeological information on the site

1232 INTERPRETATION & DEFINITIONS

1. GENERAL

This general section relates to interpretation and definitions that are used in this specification.

1.1 DEFINITIONS

Required:	Required by the documents, the New Zealand Building Code or by a statutory authority.
Proprietary:	Identifiable by naming the manufacturer, supplier, installer, trade name, brand name, catalogue or reference number.
Provide and fix:	"Provide" or "fix" or "supply" or "fix" if used separately mean provide and fix unless explicitly stated otherwise.
Review:	Review by the contract administrator is for general compliance only. Review does not remove the need for the contractor to comply with the stated requirements, details and specifications of the manufacturers and suppliers of individual components, materials and finishes. Neither can the review be construed as authorising departures from the contract documents.
Working Day:	Working Day means a calendar day other than any Saturday, Sunday, public holiday or any day falling within the period from 24 December to 5 January, both days inclusive, irrespective of the days on which work is actually carried out.

1.2 PERSONNEL

Owner:	The person defined as "owner" in the New Zealand Building Code.
Principal:	The person defined as "principal" in the conditions of contract.
Contractor:	The person contracted by the principal to carry out the contract.
Contract Administrator:	The person appointed by the principal to administer the contract on the principal's behalf. Where no person has been appointed by the Principal, it means the Principal or the Principal's representative.

1.3 ABBREVIATIONS

The following abbreviations are used throughout the specification:

AAMA	American Architectural Manufacturers Association
AS	Australian Standard
AS/NZS	Joint Australian/New Zealand Standard
ASTM	American Society for Testing and Materials
AWCINZ	Association of Wall and Ceiling Industries of New Zealand Inc
BCA	Building Consent Authority
BRANZ	Building Research Association of New Zealand
BS	British Standard
CSIRO	Commonwealth Scientific and Industrial Research Organisation
HERA	Heavy Engineering Research Association
LBP	Licensed Building Practitioner
MBIE	Ministry of Business, Innovation and Employment (includes the old DBH)
MPNZA	Master Painters New Zealand Association Inc
NZBC	New Zealand Building Code
NZS	New Zealand Standard
NZS/AS	Joint New Zealand/Australian Standard
NZTA	New Zealand Transport Agency (previously TNZ)
NUO	Network Utility Operator
PS1	Producer Statement – Design
PS2	Producer Statement – Design Review
PS3	Producer Statement - Construction
PS4	Producer Statement – Construction Review
RBW	Restricted Building Work
SARNZ	Scaffolding and Rigging Association New Zealand Inc
SED	Specific Engineering Design

TA	Territorial Authority
TNZ	Transit New Zealand (Transit New Zealand is now New Zealand Trans port Agency NZTA, some specifications are still prefixed TNZ)

1.4 DEFINED WORDS

Words defined in the conditions of contract, New Zealand Standards, or other reference d ocuments, to have the same interpretation and meaning when used in their lower case, tit le case or upper case form in the specification text.

1.5 WORDS IMPORTING PLURAL AND SINGULAR

Where the context requires, words importing singular only, also include plural and vice ve rsa.

1237 WARRANTIES

1. GENERAL

This general section refers to the requirements for warranties as listed, either in this work section and/or in specific work sections. It includes: -
- Warranties for parts of the work required by the Principal in a required form
- Installer/applicator warranties for parts of the work in the installer/applicator's standard f orm
- Manufacturer/supplier warranties provided with products, appliances and the like in the suppliers standard form
- Guarantees/Warranties provided by contractors in the contractor's standard form

Warranties

1.1 PROVIDE WARRANTIES
Provide executed warranties in favour of the principal in respect of, but not limited to, mat erials, components, service, application, installation and finishing called for in that specifie d section of work. The terms and conditions of the warranty in no case negate the minim um remedies available under common law as if no warranty had been offered. Failure to provide the warranty does not reduce liability under the terms of the warranty called for in that specified section of work.

- Conform to the 1237WA WARRANTY AGREEMENT form included in the specification/c onditions of contract.
- Commence warranties from the date of practical completion of the contract works (unles s otherwise stated).
- Maintain their effectiveness for the times stated.
- Provide executed warranties prior to practical completion.

1.2 WEATHERTIGHTNESS AND WATERTIGHTNESS WARRANTY
A warranty is required from the contractor for a minimum period of 2 years, covering the weathertightness of the complete building envelope and the watertightness of all liquid su pply and disposal systems and fittings. This general warranty is in addition to any specific warranties required.

Provide this warranty in favour of the principal. The terms and conditions of this warranty in no case negate the minimum remedies available under common law as if no warranty h ad been offered. Failure to provide the warranty does not reduce liability for execution an d materials for that part of the work.

- Conform to the standard form1237WA WARRANTY AGREEMENT included in the contr act documents.
- Commence the warranty from the date of Practical Completion.
- Maintain its effectiveness for the time stated.

1.3 WARRANTIES - INSTALLER/APPLICATOR
Where installer/applicator warranties are offered covering execution and materials of prop rietary products or complete installations, provide such warranties to the contract administ rator. These warranties may be provided in lieu of the warranties that are otherwise requi red provided that these warranties are subject to similar conditions and periods.

Provide warranties in favour of the principal. The terms and conditions of such warranties in no case negate the minimum remedies available under common law as if no warranty h ad been offered. Failure to provide the warranty does not reduce liability for execution an d materials for that part of the work.

- Conform to the installer/applicator standard form. Where the installer/applicator does n ot have a standard form, use the 1237WA WARRANTY AGREEMENT included in the c ontract documents.
- Commence the warranties from the date normally applicable for the work.
- Maintain their effectiveness for the times stated.

1.4 WARRANTIES - MANUFACTURER/SUPPLIER
Where warranties are offered covering materials, equipment, appliances or proprietary pr oducts, provide all such warranties to the contract administrator.

Provide warranties in favour of the principal. The terms and conditions of such warranties in no case negate the minimum remedies available under common law as if no warranty h ad been offered. Failure to provide the warranty does not reduce liability for execution an d materials for that part of the work.

- Conform to the manufacturer/suppliers standard form.
- Commence the warranties from the date normally applicable.
- Maintain their effectiveness for the times stated.

Submissions

1.5 REVIEW BY CONTRACTOR
Obtain the warranties from the installers and suppliers at the earliest possible date and re view to ensure that they are correctly filled out and executed. Where warranties are exec uted as a deed, ensure that a duplicate copy is provided for execution by the Principal/O wner. Keep safe and secure until required for submission.

1.6 WARRANTIES - REQUIRED BY BUILDING CONSENT AUTHORITY
Obtain copies of warranties required for submission to the BCA as a condition of the Build ing Consent. Keep safe and secure until required at the time of the BCA final inspection and Code Compliance Certificate. Provide to the BCA in the form they require.

1.7 WARRANTIES - REQUIRED BY CONTRACT
Obtain copies of warranties listed in the contract documents for submission to the Contra ct Administrator/Owner. Provide all warranties at the same time. Present the warranties t o the Contract Administrator in a "clear view" document book suitably labelled with the pr oject name and details. If the project has an operations and maintenance documentation provision, present the warranties with the operations and maintenance information.

1.8 TIME FOR SUBMISSION
Refer to the contract conditions for any requirement relating to the time for submission for warranties

NZIA SCC Contracts	Submit all warranties no later than the date of the contr actors advice of achieving practical completion.
NZS 3910 Contracts	Submit all warranties before the engineer issues the pr actical completion certificate.
NZS 3915 Contracts	Submit all warranties before the end of the defects liabil ity period.

Warranties schedule

1.9 SCHEDULE OF WARRANTIES
Provide the Warranties and Guarantees listed in this section:

2 years	Weathertightness and watertightness
5 years	Aluminium Composite Cladding
5 years	Profiled metal roofing
5 years	Synthtic rubber sheet roofing
5 years	Aluminium windows and doors
10 years	Sealants
1 year	Vinyl surfacing
2 years	Painting

Additionally the following work sections have Warranty requirements, refer to these sectio ns for details:

1237WA WARRANTY AGREEMENT

1. WARRANTY AGREEMENT

Contract for: **BNZ Development 63 Ruataniwha Street, Waipukurau**

(the contract works)

Contractor: ~
(the contractor)

Principal: ~
(the principal)

Warrantor: ~
(name of contractor, subcontractor or materials supplier)

Warranted works: ~
(the warranted works)

Warranted materials: ~
(the warranted materials)

Warranty period: ~ years from the date of practical completion of the contract works.

The principal has entered into a contract (the contract) with the contractor for carrying out the contract works. The warranted works / materials are part of the contract works.

The contractor has agreed to arrange for the provision of a warranty in respect of the warranted works / materials for the warranty period on the terms set out in this warranty.

The warrantor has agreed to provide a warranty in respect of the warranted works / materials for the warranty period on the terms set out in this warranty.

2. IT IS HEREBY AGREED

The warrantor warrants to the principal that the warranted work performed /materials supplied shall be as required in the contract. If not specified the work shall be of good trade practice with materials and fittings of merchantable quality.

This warranty shall be in addition to and shall not derogate from any manufacturer's warranty or any warranty implied by law, attaching to any part of the warranted works.

2.1 WARRANTOR'S OBLIGATIONS

The warrantor agrees that if the warrantor is advised by the principal in writing of any defect in the warranted works / materials within the warranty period for which the warrantor is liable under the terms of this warranty, the warrantor will promptly take steps to remedy the defect / replace defective materials.

2.2 REMEDIAL WORK / REPLACEMENT OF DEFECTIVE MATERIALS

Any remedial work / replacement of defective materials which the warrantor is liable to undertake / provide under this warranty shall be carried out:

- to the standard required by the contract; and
- in a prompt and timely manner; and
- without unnecessary inconvenience to any occupants; and
- at the warrantor's cost; and
- subject to reasonable access being provided to the warrantor for the purpose of carrying out the remedial work.

2.3 REPAIR, REPLACEMENT AND/OR COMPENSATION

Where the cost of replacement of work and/or materials is out of all proportion to the consequences of the defect, or where the defect may not be reasonably capable of rectificatio

n without substantial expense which is out of all proportion to the cost of the contract work s, the warrantor may:
- where the defect or defective material is reasonably rectified by repair rather than by rep lacement, the warrantor's obligation under this warranty shall be only to repair or otherw ise make good the defect or
- propose reasonable monetary compensation in lieu of remedying the defect or
- propose a combination of both repair and compensation.

The principal must consider the warrantor's reasonable proposals and the parties must en deavour in good faith to reach agreement. Where agreement cannot be reached the disp ute shall be resolved in accordance with the disputes clause in this warranty.

2.4 FAILURE BY WARRANTOR TO PERFORM REMEDIAL WORK

If the warrantor fails to promptly, adequately and satisfactorily carry out the remedial work or to propose acceptable repair/compensation, the principal may then arrange for the rem edial work to be carried out by others.

If the warrantor fails to promptly, adequately and satisfactorily provide replacement materi als or to propose acceptable repair/compensation, the principal may then arrange for the r eplacement materials to be supplied by others.

The principal must first give the warrantor 10 working days notice to carry out and comple te the remedial work / supply replacement materials. If the warrantor does not complete th is work / supply replacement materials within the time, the principal must then advise the warrantor in writing that the work will be carried out / materials will be supplied by others.

In such event the warrantor is not released from obligations under this warranty, which co ntinues in full force and effect, except in respect of the defect remedied / materials supplie d by the principal or by another person contracted by the principal. The reasonable cost o f the remedial work carried out / materials supplied by such other persons including all rea sonable costs of the principal is to be paid to the principal by the warrantor on demand.

2.5 EXCLUSIONS

The principal agrees that the warrantor is not liable for any defect or damage caused by:
- wilful act or negligence of the principal or any person other than the warrantor; or
- fire, explosion, earthquake, war, subsidence, slips, faulty materials or workmanship othe r than caused by the defect in the warranted work; or
- any force of nature which the warrantor could not reasonably foresee; or
- any neglect or unnecessary delay by the principal in giving notice to the warrantor of a d efect in the warranted works becoming apparent; or
- design faults, errors or discrepancies, unless the warrantor undertook the design of the part of the warranted works the subject of the defect; or
- unintended use of the warranted works by the principal or any occupant thereof; or
- failure by the principal or any occupant thereof to maintain the warranted works in accor dance with good practice and any manufacturer's stated or recommended instructions o r requirements.

2.6 ASSIGNMENT

The principal may assign the benefit of this warranty to any person.

2.7 DISPUTES

Any dispute or difference between the principal and the warrantor arising out of or in conn ection with this warranty, or the subject matter of this warranty, including any question ab out its existence or validity, will be referred to arbitration by a sole arbitrator to be agreed upon by the parties. If the parties are unable to agree upon the identity of an arbitrator wi thin 10 working days from the date upon which notice of the dispute is given, then the arbi trator will be appointed by the Registrar of the Building Disputes Tribunal (NZ) Ltd upon th e application of either party.

2.8 NOTICES

Notices given to the warrantor are deemed to have been effectively served on the warrant or if given in accordance with the contract.

3. EXECUTED BY

Signed by the warrantor: .....

on this: .....day of .....20.....
(day) (month) (year)

(And where required to be executed as a deed) signed in the presence of:

Witness signature .....

Name: .....
(print)

Address: .....
(print)

Occupation: .....
(print)

Signed by the principal: .....

on this: .....day of .....20.....
(day) (month) (year)

(And where required to be executed as a deed) signed in the presence of:

Witness signature .....

Name: .....
(print)

Address: .....
(print)

Occupation: .....
(print)

NOTE - Where the warrantor is not the contractor the warranty agreement must be execu ted by the warrantor and the principal in the manner required for execution of a deed.

Any of these parties which are a company must execute the warranty by having it signed, under the name of the company, by two or more directors. If there is only one director, it i s sufficient if the warranty agreement is signed under the name of the company by that dir ector, but the signature must be witnessed by another person. The witness must not only sign but must also add his or her occupation and address. Alternatively, companies may execute under power of attorney. Any party which is a body corporate (other than a comp any) must execute by affixing its seal, which must be attested in the manner provided for i n the rules of, or applicable to, the body corporate.

In the case of a party who is an individual, the party must sign and the signature must be witnessed by another person. The witness must not only sign but must also add his or her occupation and address.

1270 CONSTRUCTION

1. GENERAL

This GENERAL section relates to common requirements for construction issues including : -

- Quality assurance
- Noise and nuisance
- Set out
- Common execution requirements
- Common materials requirements
- Supply of spare materials
- Common requirements for samples and tests
- Final presentation and cleaning
- Commissioning

Quality control and assurance

1.1 QUALITY ASSURANCE

Carry out and record regular checks of material quality and accuracy, including:

- Concrete quality and finish.
- Dimensional accuracy of structural column locations (following completion of foundation s).
- All perimeter columns and frames for plumb.
- Levels of all floors relative to the site datum.
- Framing timber moisture content.

Where any material, quality or dimension falls outside specified or required tolerances, ob tain written direction from the contract administrator. Where building consent approval is a ffected, confirm remedial action with the Building Consent Authority.

Provide all materials, plant, attendances, supervision, inspections and programming to en sure the required quality standards are met by all project personnel.

Noise and nuisance

1.2 LIMIT CONSTRUCTION NOISE

Minimise the effects of noise generation by including in the planning of the work such fact ors as placing of plant, programming the sequence of operations and other management functions. Limit construction noise to comply with the requirements of NZS 6803, the req uirements of the Resource Management Act sections 326, 327 and 328 and the Health a nd Safety in Employment Regulations clause 11.

1.3 ACCEPTABLE NOISE LEVELS

Refer to NZS 6803 Tables 2 and NZS 6803, tables 3 for the upper limits of construction w ork noise in residential and industrial areas over the various time periods, particularly 073 0 to 1800 hours. Note also the allowed adjustments and exemptions in NZS 6803, 6. Do not exceed these limits.

1.4 PROVIDE INFORMATION TO NEIGHBOURS

Provide information to neighbours of any noise generation from the site liable to constitute a problem. Explain to them the means being used to minimise excessive noise and establ ish with them the timings most suitable for the noise generating work to be carried on.

Discuss with any complainant the measures being used to minimise noise. Where possibl e modify these measures to accommodate particular circumstances. Finally, determine th e sound level at the location under discussion using methods and observation reporting a s laid down in NZS 6803. If the noise level is above the upper limits of NZS 6803, tables 2 and NZS 6803, tables 3, cease the noise generating operation and remedy the problem.

1.5 ADDITIONAL NOISE CONSTRAINTS
As well as complying with the preceding clauses comply with the following on this contrac t:
Work during normal working hours.

1.6 DIRT AND DROPPINGS
Remove dirt and droppings deposited on public or private thoroughfares from vehicles ser vicing the site to the satisfaction of the appropriate authorities and the contract administra tor.

1.7 DAMAGE AND NUISANCE
Take all precautions to prevent damage and nuisance from water, fire, smoke, dust, rubbi sh and all other causes resulting from the construction works.

Set-out and tolerances

1.8 SURVEY INFORMATION
Locate and verify survey marks and datum points required to set out the works. Record a nd maintain their position. Re-establish and replace disturbed or obliterated marks.

1.9 SET-OUT AND DATUM
Set out the work to conform with the drawings. Establish a permanent site datum to confi rm the proposed building ground floor level and its relationship to all other existing and ne w building levels.

1.10 SET-OUT BY LICENSED CADASTRAL SURVEYOR
Before commencing construction provide the contract administrator with a certificate prep ared by a licensed cadastral surveyor that the set-out is complete and that the building is accurately placed on the site.

During construction provide the contract administrator with a certificate, prepared by the s ame licensed cadastral surveyor confirming the set-out of the foundations and grid lines. Necessary adjustments are to be determined and agreed to by the contract administrator before proceeding further.

1.11 CONFIRM HEIGHT IN RELATION TO BOUNDARY
Provide a certificate prepared by a licensed cadastral surveyor that the building has been constructed within the allowed height in relation to boundary. Provide the certificate to th e local authority. Provide a copy of the certificate to the contract administrator

1.12 USE OF SET-OUT INSTRUMENTS
Permit without charge, the use of instruments already on site for checking, setting out and levels.

1.13 CHECK DIMENSIONS
Check all dimensions both on drawings and site, particularly the correlation between com ponents and work in place. Take all dimensions on drawings to be between structural ele ments before linings or finishes, unless clearly stated otherwise.

1.14 TOLERANCES
All work to be level, plumb, and true to line and face. Unless otherwise specified in specifi c work sections of this specification, tolerances for structural work shall comply with the fo llowing:

Concrete construction:	To NZS 3109 Concrete construction Clause 3.9 Tolerances for reinforcement Table 5.1 Tolerance for precast components Table 5.2 Tolerance for in situ construction To NZS 3114 Concrete surface finishes
Structural steelwork:	To NZS 3404:1997 Steel structures standard Section 14.4 Tolerances (after fabrication) Section 15.3 Tolerances (erection)

Timber framing:	To NZS 3604 Timber-framed buildings Clause 2.2 Tolerances Table 2.1 Timber framing tolerances

Refer to work sections for tolerance requirements for finishes.

Execution

1.15 EXAMINE PREVIOUS WORK
Before commencing any part of the work carefully examine the previous work on which it may depend. Report in writing to the contract administrator defects that may affect the qu ality of the proposed work and obtain instructions. Commencing work on any part means that previous work is accepted as being satisfactory for work of the required standard.

1.16 WORKER QUALIFICATIONS
All work to be level, plumb, and true to line and face. Employ only experienced workers f amiliar with the materials and techniques specified.

1.17 MINIMISE DELAYS DUE TO WEATHER
Use appropriate techniques and methods to prevent damage and minimise delays due to weather.

Materials

1.18 NEW PRODUCTS AND MATERIALS
Materials and products to be new unless stated otherwise, of the specified, and complyin g with all cited documents.

1.19 COMPATIBILITY OF MATERIALS AND FINISHES
Ensure all parts of a construction or finish are compatible and their individual use approve d by the manufacturers and suppliers of other parts of the system. Source all parts of a s ystem from a single manufacturer or supplier.

1.20 STORING PRODUCTS AND MATERIALS
Take delivery of and store products, materials and components in accordance with codes of practice and the product manufacturer's or supplier's stated requirements. Maintain th e proper condition of any protective packaging, wrappings or supports during delivery, unl oading and storage.

1.21 HANDLING PRODUCTS AND MATERIALS
Handle products, materials and components in accordance with codes of practice and the manufacturer's or supplier's stated guidelines. Avoid distortion and any contact with pote ntially damaging surfaces or conditions.

1.22 SUBSTRATE CONDITIONS
Ensure substrate conditions are within the manufacturer's or supplier's stated guidelines b oth before and during the installation of any material, product or system. Obtain written in structions on the necessary action to rectify unsatisfactory conditions.

1.23 INSTALLING PRODUCTS AND MATERIALS
Install in accordance with the manufacturer's or supplier's technical literature. Ensure that all installers are familiar with the required substrate conditions and the manufacturer's or supplier's specified preparation, fixing and finishing techniques.

1.24 COMPLY WITH STANDARDS
Comply with the relevant and/or cited Standard for any material or component. Obtain ce rtificates of compliance when requested by the contract administrator.

1.25 CONDITION OF MATERIALS AND COMPONENTS
To be in perfect condition when incorporated into the work.

1.26 INCOMPATIBLE MATERIALS AND METALS
Separate incompatible materials and metals with separation layers, sleeves or gaskets of plastic film, bituminous felt or mastic or paint coatings, installed so that none are visible o n exposed surfaces.

Samples and tests

1.27 SAMPLES AND PROTOTYPES
Where specified in the work sections, submit samples, prepare sample panels, and constr uct prototypes for review as to appearance, form and conformance with the drawings and specifications. Submit all information required to assist the review process, including tech nical data, manufacturer's literature, independent appraisals and producer statements.

Timing for the provision and review of samples, sample panels and prototypes to be inclu ded in the contract programme. Allow a minimum of 10 working days for each review. Pro ceed only after instructions to proceed have been issued in writing by the contract admini strator.

In situ work may be incorporated in the finished work if so confirmed, otherwise allow to r emove completely and replace.

1.28 CONTROL STANDARD
Obtain the contract administrator's confirmation of material, component and work sample s which then become the quality control standard. Remove from the site any rejected sa mples. Retain confirmed samples with care on site for comparison throughout the contra ct. Remove from the site when no longer required.

Spares

1.29 SPARES
Collect, protect and store safely all spare materials required under the contract. Give the contract administrator an inventory of all spares.

Final presentation and cleaning

1.30 REMOVE TEMPORARY PROTECTION
Remove all temporary markings, coverings, labels and protective wrappings unless instru cted otherwise.

1.31 REPLACE DAMAGED MATERIALS
Replace all materials or component damaged during the works to the standard of and inte gral with the original.

1.32 COMPLETE ALL SERVICES
Ensure all services are complete and operational, with all temporary labelling removed, re quired labelling fixed and service instructions provided.

1.33 CLEANING BY CONTRACTOR
Clear the contract works of all construction materials, waste, dirt and debris. Clean the co ntract works including:
- Wipe all surfaces to remove construction dust
- Clean out service ducts and accessible concealed spaces
- Clean out all gutters and rainwater heads
- Wipe dust from both sides of glass. Take particular care when removing paint or cemen titious materials to not damage the glass.
- Remove adhesive residue left by labels and other temporary protection/markings
- Clean out the interior of all cabinetry
- Wash down external concrete including driveways and concrete masonry. Take care w hen waterblasting to not cause damage to the surface or allow water to enter the buildin g.
- Remove rubbish and building material from the area immediately adjacent to the contra ct works

1.34 CLEANING BY COMMERCIAL CLEANER

Use a commercial cleaning firm to clean the whole of the interior of the building, including all appliances, equipment, fittings, surfaces and finishes to leave it without any blemish. Cleaning to include:

- Clean and wash down all external surfaces to remove dirt, debris and marking.
- Clean all interior surfaces including cabinetwork, joinery, sanitary and hardware items.
- Vacuum or polish all floor finishes.
- Clean and polish all glass, both sides.

Commissioning

1.35 MOVING PARTS

Adjust, ease and lubricate all doors, windows, drawers, hardware, appliances, controls an d all moving parts to give easy and efficient operation.

1.36 TESTS AND CERTIFICATION

Water pressure and sanitary drainage testing

1.37 SECURITY AT COMPLETION

Remove any temporary lock cylinders and complete final keying prior to handing over key s to the principal on completion of the works. Leave the works secure with all accesses lo cked. Account for all keys/cards/codes and hand to the principal along with an itemised s chedule, retaining a duplicate schedule signed by the principal as a receipt.

2241 EXCAVATION

1. GENERAL

This section relates to the excavating required for the building works, removing surface soils and the disposal of excavated material in preparation for new building work.

Related work

1.1 RELATED SECTIONS
Refer to Structural Drawings for foundation depths and sizes.

Documents

1.2 DOCUMENTS REFERRED TO
Documents referred to in this section are:

NZS 4402	Methods of testing soils for civil engineering purposes
OSH	Approved code of practice for safety in excavation and shafts for foundations

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

Requirements

1.3 ARCHAEOLOGICAL DISCOVERY
If fossils, antiquities and other items of value are found refer to the general section 1220 PROJECT for actions to be taken with archaeological discovery.

Performance

1.4 ACCESS FOR MACHINES
Determine working conditions and access for machines. Take into account the time of year, the nature of the ground and subsoil to be excavated, the ground water table and all matters influencing the carrying out of the work.

1.5 SAFE WORKING CONDITIONS
Provide safe working conditions and adequate support to excavations at all times. Cover holes and fence off trenches and banks.

1.6 FOUNDATION BEARING
Request written instructions if a natural bearing is:
- reached at a lesser depth or
- not reached at the depth shown on the drawings.

In made-up ground excavate down to a natural bearing. Remove unsuitable material that is exposed and replace with compacted backfill.

1.7 INSPECTION
Arrange for inspections and before placing any new work. If bearing becomes inadequate due to any cause then stop work and request further instructions.

1.8 SITE MEASUREMENT, OTHER FORMATIONS
If for any reason the excavations have to vary from the drawings, those affected to be solid measured and the quantity recorded and agreed to in writing as the excavation proceeds.

2. PRODUCTS

Materials

2.1 TOPSOIL
Weathered soil, with organic inclusions capable of supporting the growth of vegetation.

2.2 CUT MATERIAL
Consisting of sands, gravels, sedimentary materials, clays, scoria and similar deposits.

2.3 ROCK
Defined as material encountered in excavations which because of its size or position can be removed only by breaking up by explosives or mechanical plant such as jack hammers or percussion drills.

2.4 UNCONTROLLED FILL
Variable fill material placed with little or no compaction control.

2.5 EXCAVATED FILL
Material from other formations in the excavation which may be selected and approved as suitable for filling and complying with NZS 4402 by having grading and moisture content p roperties that will allow compaction to 95% of maximum density.

3. EXECUTION

Conditions

3.1 REPORT
Report any survey pegs, bench marks, and the like on any features, leaving them undistu rbed until approval is given for removal.

3.2 COMPLY
Comply with the requirements of the OSH publication: Approved code of practice for safet y in excavation and shafts for foundations.

3.3 WORK BY OTHERS
Before taking over work done on the site by others check all levels and conditions and rep ort any discrepancies affecting further work.

3.4 EXISTING SERVICES AND FOUNDATIONS
Locate underground services and foundations before work is started. Any information pro vided regarding the location of these services and foundations is given from available rec ords but with no guarantee of accuracy as regards alignment or depth. Furthermore no g uarantee is given or implied that the information provided covers all existing services and foundations. Make good at no extra cost damage to existing services to the satisfaction o f the appropriate network utility operator. Protect existing roads, footpaths, gutters, crossi ngs etc from damage during work.

3.5 KEEP FREE OF WATER
Keep excavations free from water and keep water from excavations clear of other constru ction work.

3.6 TERRITORIAL AUTHORITY REQUIREMENTS
Obtain from the territorial authority requirements for the method of discharging water from the site.

3.7 FORM SUMPS
Form sumps outside the line of foundations and deep enough to drain excavations. Pum p from sumps without disturbing excavations or any material in place.

3.8 SILT CONTROL
Undertake silt control measures required by territorial authorities and network utility opera tors in relation to design, location and discharge into the drainage system.

Application

3.9 STRIP TOPSOIL
Strip topsoil carefully over the whole site and stockpile where directed on the site, on the prepared subgrade, for re-spreading at the completion of the contract.

3.10 STRIP TO SUBGRADE
Strip the soil over the whole site to form a subgrade generally, but at a minimum of 200m m below the original ground level. Leave the subgrade level, clear of all loose material an d with no impediment for the excavation work.

3.11 DIVERT DRAINS AND SERVICE LINES
Divert services, drains and field drains encountered in the excavations to new routes clea r of the building and reconnect to the requirements of the network utility operator.

3.12 BREAK OUT
Break out and remove old foundations, floor slabs, drains, manholes and septic tanks, se al up connections and remove contaminated soil. Grub out roots in excess of 75mm diam eter to a minimum of 500mm below the bottom level of footings or paving. Backfill with sel ected excavated material, well rammed in layers.

Take special care when working close to retained trees and shrubs.

3.13 EXCAVATION GENERALLY
Excavate for pads, strip foundations and tie beams to the profiles and levels shown on th e drawings. Allow clearance for working space and formwork as necessary. Trim to requ ired profiles, falls and levels. If pouring against natural ground excavate an extra 25mm t hat side to provide 75mm minimum cover to reinforcement horizontally. Bench surface of sloping ground to receive filling.

3.14 OVER EXCAVATION
Make good with well compacted backfill.

3.15 EXCAVATED BACKFILL
Stockpile selected excavated backfill on site where directed so that it does not impede co ntinuing works until it is required.

Finishing

3.16 BATTERS, TEMPORARY PROTECTION
Protect batters with a change of level between crest and toe of more than 1.5 metres from weather erosion with a waterproof covering of either hessian and tar, or heavy duty black polythene sheet. Seal at joints and securely fix down at crest and toe. Maintain covering s in good condition until the ground is secured by permanent construction.

Completion

3.17 LEAVE
Leave work to the standard required by following procedures.

3.18 SURPLUS TOPSOIL
Remove unwanted stripped soil from the site continually as the work proceeds. Clean up continually any soil if dropped on footpaths or roads.

3.19 SURPLUS MATERIAL
Remove surplus excavated material from the site continually as the excavation proceeds. Clean up continually any excavated material dropped on footpaths or roads.

4. SELECTIONS

2242 BACKFILLING

1. GENERAL

This section relates to the supply, placing and compaction of materials for backfill, baseco urse or built-up ground, as required for the contract works.

Related work

1.1 RELATED SECTIONS
Refer to 4131AL for ALLCO VOLCLAY TANKING

Documents

1.2 DOCUMENTS REFERRED TO
Documents referred to in this section are:

NZS 3104	Specification for concrete production
NZS 4402	Methods of testing soils for civil engineering purposes
TNZ M/04	Specification for basecourse aggregate

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

2. PRODUCTS

Materials

2.1 EXCAVATED FILL
Material from other formations in the excavation which may be selected and approved as suitable for filling and complying with NZS 4402 by having grading and moisture content p roperties that will allow recompaction to 95% of maximum density.

2.5 SAND FILL
Clean sand of such grading in particle size as to achieve mechanical compaction to 90% maximum density to NZS 4402.

2.6 BLINDING FILL
Scoria, crushed or river run rock to AP (All Passing) 7 grading.

2.7 HARDFILL
Scoria, crushed or river run rock to AP (All Passing) 65 grading.

2.8 GRANULAR FILL
Approved screened crushed gravel or scoria graded in size from 20mm to 7mm, clean. When tested with a standard sieve of 4.75 opening no material is to pass.

2.9 BASECOURSE
Metal aggregate for road construction to GAP 40 grading.

2.10 SUB-BASECOURSE
Metal aggregate for road construction to GAP 80 grading.

2.11 DRESSING COURSE
Scoria to GAP 20 grading, or "dirty footpath scoria", or equivalent "all in" graded crushed metal aggregate.

2.12 FREE-DRAINING AGGREGATE
Scoria or crushed gravel graded 50 to 14 clean.

2.13 SITE CONCRETE
Prescribed mix 10.0 MPa to NZS 3104.

3. EXECUTION

Conditions

3.1 UNSUITABLE MATERIALS
Remove from site all unsuitable filling material.

3.2 REMOVE SURPLUS
Remove surplus imported filling materials from the site.

3.3 SPREAD SURPLUS
Spread and level surplus imported filling materials where directed.

3.4 PLACE FILLING
Place filling using approved methods, to required dimensions, levels, lines and profiles an d so that surface water drains freely.

3.5 PROTECTION OF FORMATION
Do not allow construction traffic on filling until the level has been raised not less than 150 mm above formation level by properly compacted temporary protective filling. Remove te mporary protective filling from the site before beginning permanent construction. Do not s tockpile materials on newly filled areas without permission.

3.6 DIFFERING MATERIALS
Where materials of widely divergent characteristics are used for filling, spread and compa ct in clearly defined separate layers.

3.7 EARTHMOVING EQUIPMENT
Do not use earthmoving equipment for compaction.

3.8 COMPACTION NEAR EDGE SUPPORTS
Ensure that edge supports are strong enough to support compaction forces without move ment, cracking or other damage. Make good damage caused by compaction.

3.9 MOISTURE CONTENT, GENERAL FILL
Moisture content at time of compaction to be within the range of optimum less 6% up to o ptimum. Do not use filling with moisture content above optimum value. If necessary:
- adjust moisture content of filling by turning and drying
- provide water sprinkling equipment if fill is too dry.

Application

3.10 SPREAD AND COMPACT GRANULAR FILL
Spread and level in layers not more than 150mm loose depth from the approved level. Co mpact filling in layers as specified by at least four passes of a vibratory roller having a stat ic linear loading of 1.8 - 2.3 kg/mm, or twelve passes of a vibratory roller having a static li near loading of 0.8 - 1.2 kg/mm. Achieve a density of not less than 95% of maximum at o ptimum moisture content to NZS 4402.

Alternative compaction plant may be used provided it can be shown that the density requi rement can be achieved.

3.12 SPREAD AND COMPACT HARDFILL
Spread and level in layers of not more than 150mm loose depth where required to make up from approved subgrade to the underside of basecourse, sitework construction or to w here shown on the drawings. Compact as described under SPREAD AND COMPACT G RANULAR FILL.

3.14 SPREAD AND COMPACT SAND FILLING
Spread and level in layers of not more than 125mm loose depth for areas designated on t he plan or agreed on site. Carry out vibrating compaction on a trial area to show that 90 % maximum density to NZS 4402 can be achieved.

3.15 SAND/AP 7 BLIND SURFACE
Blind surface of area being covered with a concrete slab with sand or AP 7 to a thickness not more than 12mm with a fill of 25mm maximum for depressions in granular base. Roll or compact with a vibrating plate tamper ready to take damp-proofing. Finish the surface with a non-vibrating smooth wheeled roller.

3.16 BACKFILL TO FOUNDATIONS
Backfill with approved material, compacted in 150mm layers using mechanical vibrating t ampers weighing at least 65 kg, to achieve a density of not less than 90% maximum at op timum moisture content to NZS 4402.

3.17 SUBGRADE TO CONCRETE SLABS
From approved sub-subgrade spread and level granular base in 100mm maximum loose l ayers. Compact with a roller or a vibrating plate tamper of at least 70 kg to provide a den se unyielding base. Dress this surface with a 25mm layer of dressing course and roll to f orm a tight dense surface. Blind with a maximum 12mm layer of sand and compact with a roller or a vibrating plate tamper to leave ready for damp-proofing.

Completion

3.18 TAKE AWAY
Take away from the site all selected excavated material or brought-in material not used fo r backfilling, leaving the site clear and tidy.

3.19 LEAVE
Leave work to the standard required by following procedures.

3.20 REMOVE
Remove all debris and unused materials from the site.

4. SELECTIONS

4.1 HARDFILL
Location: Around foundation walls
Type: Compacted hardfill

4.2 BLINDING
Location: Around foundation walls
Type: Coarse sand

3321F FIRTH CONCRETE MASONRY

1. GENERAL

This section relates to the laying, reinforcing and grouting of **Firth** hollow concrete mason ry for observation type A or B specific design masonry using ready-mix grout for the follo wing types:
- **Firth** hollow block masonry

1.1 RELATED WORK
Refer to Structural Specification for Concrete.

Documents

1.2 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following docume nts are specifically referred to in this section:

NZS 3104	Specification for concrete production
NZS 3109	Concrete construction
NZS 3112.1	Methods of test for concrete - Tests relating to fresh concrete
NZS 4210	Masonry construction - Materials and workmanship
AS/NZS 4455.1	Masonry units, pavers, flags, and segmental retaining wall units - Mas onry units
AS/NZS 4671	Steel reinforcing materials
CCANZ CP 01	Code of Practice for Weathertight Concrete and Concrete Masonry Co nstruction

1.3 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents relating to this part of the work:
Firth Industries documents relating to work in this section are:
Firth Masonry Homes Construction Manual
Firth Cantilever Masonry Retaining Walls Manual
Firth Hollow Masonry Document
Firth EsiBloc® Mortarless Masonry Manual
Firth Energy Efficiency Masonry Construction
Firth Masonry Insulation Solutions
Firth Architectural Masonry Best Practice Guide for Specifiers and Installers
Firth Design Masonry Control Joint Specification

Manufacturer/supplier contact details

Company:	**Firth** Industries
Email:	info@firth.co.nz
Web:	www.firth.co.nz
Telephone:	0800 800 576
Facsimile:	0800 800 530

Requirements

1.4 NO SUBSTITUTIONS
Substitutions are not permitted to any specified **Firth** hollow concrete masonry or associa ted products.

1.5 QUALIFICATIONS
All work to be installed or supervised by a licensed building practitioner: Licensed for Bric klaying and Blocklaying 2: Structural Masonry.

1.6 CONSTRUCTION OBSERVATION BY ENGINEER
Where required as a condition of the building consent, advise the engineer when inspecti ons are required.

Obtain the producer statements required from the engineer relating to the masonry constr uction and keep with the building consent documentation.

1.7 QUALITY RECORDS
Keep accurate records relating to strength and quality of materials used in the constructio n, and make the information available to the Building Consent Authority inspector on requ est.

1.8 SELECTED MASONRY
Refer to the drawings for areas of masonry, which require select quality blocks to both sid es, self-insulating masonry, water resistant masonry or mortarless masonry.

1.9 CERTIFICATION - SEALERS FOR MASONRY
Paints and clear sealers to CCANZ CP 01. The sealer applicator is to certify that the seal er application is in accordance with the design and manufacturer's specification. Provide certification to the Contract Administrator.

Performance - tests

1.10 TESTS
Carry out all required tests to NZS 4210: appendix 2A, Compressive strength tests for mo rtar and grout.

1.11 RECORDS OF TESTS
To NZS 4210 and kept on site:
- spread of grout tests
- grout supplier's test certificates.
- mortar

1.12 TESTING PROCEDURES
Provide advance notice of cell filling work. If requested maintain on site all equipment ne cessary for taking and preparing samples for test. Retain records of test results and supp ly on request.

1.13 SPREAD OF GROUT
If requested, carry out tests to NZS 3112.1, to the requirements of NZS 4210.

1.14 COMPRESSIVE STRENGTH OF GROUT
If requested, carry out tests to NZS 4210: appendix 2A, Compressive strength tests for m ortar and grout, with 3 specimens per test.

1.15 COMPRESSIVE STRENGTH OF MORTAR
If requested, carry out tests to NZS 4210: appendix 2A, Compressive strength tests for m ortar and grout, with 3 specimens per test.

1.16 EXPANSION OF GROUT
If requested, carry out tests to NZS 4210: appendix 2C, Test for expansion of grout.

2. PRODUCTS

Materials

2.1 MASONRY
Firth masonry blocks to AS/NZS 4455.1 with true and unblemished surfaces and arrises. Use appropriate masonry for intermittently filled construction where vertical reinforcement is placed prior to laying of masonry. Refer to SELECTIONS for type, size and bond.

2.2 REINFORCEMENT
To AS/NZS 4671, deformed mild steel except for ties in plain round mild steel.

2.3 JOINT REINFORCEMENT
Galvanized steel twin 4mm diameter rods spaced 60mm apart by a 2mm diameter lattice welded on.

Accessories

2.4 MORTAR
Dricon Trade Mortar to NZS 4210: 2.2 Mortar. Refer to SELECTIONS for colour.

2.5 COARSE AGGREGATE GROUT
Firth Certified ready-mixed blockfill to NZS 4210: 2.3 Grout and NZS 3104.
Strength: 17.5 MPa
Aggregate: 4.75mm to 13.2mm maximum

2.6 FINE AGGREGATE GROUT
Firth Certified ready-mixed blockfill to NZS 4210: 2.3 Grout and NZS 3104.
Strength: 17.5 MPa (unless subject to seaspray zone)
Aggregate: 4.75mm to 6mm maximum

3. EXECUTION

Conditions

3.1 COMPLIANCE
Comply with NZS 4210.

3.2 TOLERANCES
Construct within the tolerances set out in NZS 4210: clause 2.6.5, Tolerances and clause 2.7, Laying the units, unless specified otherwise on the drawings or in this specification. Lay blocks with jointing of consistent thickness throughout.

Lay masonry to an even, plane surface with no deviation exceeding 3mm in 3 metres on any surface in view in the finished work.

Where EsiBloc® mortarless masonry is used, EsiBloc® wedges are to be used to maintain levels.

3.3 CHECK BASE
Check that the base concrete on which masonry is being built is true to line and level, to e nsure that work can be taken up true and plumb with 10mm thick bed and perpendicular j oints. If more than 20mm thickness of mortar bed is needed to correct inaccuracies obtai n written direction on remedial action.

3.4 CONSTRUCTION JOINTS
Ensure the structural integration of all masonry with adjacent concrete work by providing well roughened, retarded construction joints at all junctions.

Vertical joints between masonry and concrete to achieve full structural integration across t he joints. Allow to construct concrete work first with prepared vertical construction joints a t block junctions the same as for horizontal construction joints. Lay masonry so that all co urses have open ends abutting the existing concrete work.

3.5 COVER
All cover shall be in accordance with NZS 3109: 3.8 Cover and 3.9 Tolerances for reinforc ement.

3.6 STARTER POSITIONS
Check the location of starter reinforcement before block laying commences, or by a dry tri al lay up of the first course. Do not attempt to correct misplacement by cranking bars. W here misplacement exceeds the location tolerance obtain written directions before procee ding further.

3.7 MOISTURE CONTENT
Ensure that blocks are air-dry prior to laying. If necessary to reduce excess absorption of water from the mortar, some dampening of the surface is permissible but no surface wate

r may be present at the time of placing mortar. Keep masonry on the pallet and protected from the weather prior to use.

3.8 PROTECTION
Keep fair face block walls clean of mortar droppings, grout splashes, or stains of any kind as the work proceeds and before any droppings set and protected from weathering prior t o sealing to avoid instances of efflorescence and staining.

3.9 WEATHER PRECAUTIONS
When extreme temperatures prevail, either below 4°C or above 27°C, make adjustments to construction as listed in NZS 4210: clause 2.18, Cold weather construction, and clause 2.19, Hot weather construction. Do not use expansive grout for filling in temperatures bel ow 5°C.

Application

3.10 SELECTION
For fair face walls select blocks for consistent colour, texture and lack of imperfections. R efer to clause PROTECTION.

3.11 BONDING PATTERN
Unless specifically shown or described otherwise in SELECTIONS/drawings, lay masonry in stretcher bond with full masonry bonding at intersections.

3.12 OPEN-ENDED DEPRESSED WEB MASONRY
Use open-ended depressed web masonry throughout all courses in fully grouted walls.

3.13 CUTTING
Cut using a masonry saw to provide clean, accurate cuts.

3.14 FACE SHELL BEDDING
Lay masonry on full mortar beds under face shells only where fully grouted.

3.15 BOTTOM COURSE
For fully grouted walls use inverted open-end depressed web bond beam masonry for the first course, to permit clean-out of grout space at the base.

3.16 CLEAN OUT HOLES
Use special clean-out masonry or saw off a 100mm x 200mm high section of face shell at the base of all cells containing reinforcement, to form clean out and inspection holes.

3.17 GROUT SPACE
Ensure that grouting cells at reinforcement locations are continuously clear by removal of projecting mortar.

3.18 TIE REINFORCING STEEL
Tie vertical reinforcing steel to starter bars. Lay and tie horizontal bars as the work proce eds.

3.19 REINFORCEMENT LAPS
Lap at 40 diameters for 300 grade and 70 diameters for 500 grade, except as noted other wise on the drawings.

3.20 BRACING
Provide temporary lateral bracing to the wall where necessary to ensure stability and until final supporting construction is in place.

3.21 NON EXPOSED MASONRY
To be laid to the same tolerances as fair face masonry. Joints to be tooled and struck off flush.

3.22 TOOLED JOINTS
Finish joints on exposed masonry by tooling to produce a neat, tight joint. Refer to the dr awings for details.

3.23 CONTROL JOINTS
Refer to NZS 4210: clause 2.10, Methods of controlling wall movements, generally and to clause 2.10.2, Vertical control joints, for location; not more than 6 metres apart.

Debond reinforcement passing through control joints 150mm each side for single walls an d 300mm one side for 2 walls. Rake out and prime adhesion faces of vertical control joint s between masonry and between masonry and concrete as required by the sealant manuf acturer. Use masking tape to avoid over-run of sealant onto the block face. Provide a ba cking strip to limit sealant depth to 10mm, and insert sealant, all to the manufacturer's req uirements.
Construction of control joints to NZS 4210.

Grouting of bond beams at control joint locations to be discontinuous unless specifically n oted otherwise.

Application - grouting

3.24 INSPECTION
Inspect clean-out holes prior to grouting. Ensure that cells are clean and reinforcement is correctly placed. Mortar back the clean-out hole shell. If holes are covered in the comple ted work, boxing across the face may replace the shell infill. Brace hole infills to prevent blowouts during grouting.

Notify when work is ready for inspection.

3.25 GROUTING, LOW LIFT
Fill masonry walls to NZS 4210: clause 2.14, The low lift grouting method, up to a maximu m height of 1200mm. Consolidate by rodding and then prepare a construction joint to NZ S 4210: clause 2.16, Horizontal construction joints, before repeating the sequence.

3.26 LIMIT RATE
Limit rate of pour to avoid hydrostatic blowouts.

Application - ancillary work

3.27 HOLES AND CUT MASONRY
Provide all necessary holes, pockets and chases. Cut blocks when non-standard shapes are required. When cut masonry units are used, ensure vertical joints in adjacent courses are no closer than 100mm. Subsequent cutting away of masonry to form holes is not per mitted.

3.28 BUILT IN ELEMENTS
As the work proceeds, mortar in place elements such as sills, copings, lintels, and steps.

3.29 BUILT IN FIXINGS
Build in all necessary plugs, bolts, ties, metal flashings, dowels, fastenings and fixings req uired by this and other work sections. Co-operate with others to meet this requirement. F ixings only permitted into filled cells.

3.30 ELECTRICAL WORK
Ensure that provision for and fitting of boxes, conduit and pre-wiring are made and done as the work proceeds under the direction of the electrician.

3.31 SEALANT
Apply appropriate sealant where required to the manufacturer's specifications. Sealant to CCANZ CP 01.

3.32 WEATHERPROOFING AROUND OPENINGS
Refer to architectural drawings for weatherproofing details around openings.

Completion

3.33 PROGRESSIVE CLEANING
Clean off mortar splashes and grout spills as they occur.

3.34 FINAL CLEANING
At completion, clean down block work, remove efflorescence and remove waste materials from adjoining surfaces and floors.

3.35 REPLACE
Replace damaged, cracked or marked elements.

3.36 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS

For further details on selections go to www.firth.co.nz.
Substitutions are not permitted to the following, unless stated otherwise.

4.1 FIRTH - MASONRY UNITS

Brand:	**Firth**
Series:	20 Series
Type/size:	390/190mm x 190mm x 190mm
Bonding pattern:	Stretcher bond

4.2 MORTAR

Type/colour:	Dricon Trade Mortar colour : Natural Grey

4.3 FIRTH MASONRY BLOCKFILL

Type:	**Firth** coarse Aggregate grout
Strength:	17.5MPa
Aggregate:	4.75mm to 12mm maximum

3821L LASERFRAME® TIMBER FRAMING

1. GENERAL

This section relates to the supply and erection of Carter Holt Harvey **Laserframe®** kiln-dried, machine graded timber framing as:
- a framed structure
- part of a partitioning system.

1.1 RELATED WORK
Refer to 4161 UNDERLAYS, FOIL AND DPC for underlays, foils and DPC.

Documents

1.2 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC B2/AS1	Durability
NZS 3602	Timber and wood-based products for use in building
NZS 3603	Timber structures standard
NZS 3604	Timber-framed buildings
AS/NZS 4347.0	Damp-proof courses and flashings - Methods of test - General introduction, list of methods and test specimen requirements
OSH	Guidelines for the provision of facilities and general safety in the construction industry
BRANZ BU 519	Fastener selection

*** A copy of NZS 3604 Timber-framed building, must be held on site.**

1.3 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are:
Laserframe® product information:
Laserframe® Product Information Sheet

Copies of the above literature are available at;
Web: www.laserframe.co.nz
Telephone: 0800 74 63 99

1.4 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and products.

2. PRODUCTS

Materials

2.1 STRUCTURAL TIMBERS, TREATED
Laserframe® , kiln dried, verified structural grade (SG) to NZS 3603, radiata pine with an average moisture content at supply of 90% of the product, within MC range of 8 - 26%. Treated to the appropriate requirements of NZS 3602, NZBC B2/AS1.

2.2 POLYETHYLENE DPC
Polyethylene film to AS/NZS 2904 and embossed on both sides. Thickness 500 microns minimum, manufactured for use as a damp-proof course and concealed flashings to doors and windows.

2.3 BITUMINOUS IMPREGNATED DPC
Heavy Kraft impregnated with high grade bitumen and coated with higher heat resistant bitumen to AS/NZS 2904 and to the appropriate test methods set out in AS/NZS 4347.0.

Components

2.4 NAILS
Steel, stainless steel and galvanized steel of pattern to suit the location and to BRANZ B U 519.

Type to NZS 3604, section 4, **Durability**, and of the size and number for each particular t ype of joint as laid down in the nailing schedules of NZS 3604, section 6, **Foundations a nd subfloor framing**, section 7, **Floors**, section 8 **Walls**, section 9, **Posts** and section 10 , **Roof framing**. Except that when hand driving nails into **Laserframe®** the nail lengths an d diameters should be generally as for power driven nails.

2.5 BOLTS AND SCREWS
Of engineering and/or coach type complete with washers, to the requirements of NZS 360 4, section 4, **Durability**, and of the number and form required for each particular junction t o NZS 3604, section 6, **Foundationsand subfloor framing**, section 7, **Floors**, section 8, **Walls**, section 9, **Posts** and section 10, **Roof framing**.

2.6 THREADED RODS
Use stainless steel threaded rods of the required length, with washers and nuts at both e nds, when stainless steel bolts of the required length are not available.

2.7 TIMBER CONNECTORS AND FIXINGS
Supply for each particular joint the connectors and fixings as noted on the drawings. Co mply with the requirements of NZS 3604, section 4, **Durability**, and of the number and for m required for each particular junction to NZS 3604, section 6, **Foundations and subflo or framing**, section 7, **Floors**, section 8 **Walls**, section 9, **Posts** and section 10, **Roof fra ming**..

2.8 BRACING STRAPS
Nail on type to the requirements of NZS 3604, section 4, **Durability**, and of the number a nd form required for each particular application to NZS 3604, section 6, **Foundations an d subfloor framing**, section 7, **Floors**, section 8 **Walls**, section 9, **Posts** and section 10, **Roof framing**.

2.9 CORROSION RISKS
For exterior timber, timber in damp areas and timber subject to occasional wetting, use on ly stainless steel (or equivalent) fixings and connectors, if the timber is treated with; Copp er Azole (CuAz, Preservative code 58), Alkaline Copper Quaternary (ACQ, Preservative c ode 90), Micronise Copper Azole (code 88) or Micronised Copper Quaternary (code 89).

2.10 POWDER ACTUATED FASTENERS
To type, size and charge required by the powder actuated tool manufacturer for each part icular member and the substrate.

3. EXECUTION

Conditions

3.1 PROTECT TIMBER
Keep **Laserframe®** dry and wrapped prior to erection. Protect against damage and from i nclement weather and ensure that any variation in moisture content is kept to a minimum, before and after erection and before enclosure.

3.2 EXECUTION
To NZS 3604 and stud design tables. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.3 SEPARATION
Separate all timber framing timbers from concrete, masonry and brick by: -
- a full length bituminous damp-proof membrane overlapping timber by at least 6mm; or
- a 12mm minimum free draining air space

3.4 MOISTURE CONTENT
Maximum allowable equilibrium moisture content (EMC) in accordance with the NZBC E2 /AS1, clause 10.2 for framing supporting interior linings:
- At lining: 20%

3.5 TOLERANCES
Permissible deviations from established lines, grades and dimensions equal to or less tha n the following. Multiples of given limits are not cumulative.
- deviation in plan, up to 10 metres, 5mm
- deviation in plan, over 10 metres, 10mm
- deviation from horizontal, up to 10 metres, 5mm
- deviation from horizontal, over 10 metres, 10mm
- deviation from vertical position more than 1 storey in height, 15mm
- deviation from vertical position within a storey per 3 metres, 3mm
- deviation from vertical, in total height, 20mm
- deviation from horizontal and vertical, within openings, 3mm
- deviation from level in floors and decks, over 3 metres, 5mm

3.6 DIMENSIONS
All timber sizes except for battens are actual minimum dried sizes.

Application

3.7 SET OUT
Set-out framing generally in accordance with the requirements of NZS 3604, to carry sup erimposed loads and as required to support sheet linings and claddings. Set back nogs 1 2.5mm from face of studs where required for back-blocking of plasterboard non-tapered e nds or edges.

3.8 SET TIMBERS
Set timbers true to the required lines and levels with all mitres, butt joints, laps and housin gs cut accurately to provide full and even contact over the whole of the bearing surface.

3.9 TIMBER CUTTING
Select and cut spanning members to minimise allowable defects and avoiding knots and short grain on edges in the middle third, and shakes, splits and checks at mid-span and cl ose to ends. Refer to the recommendations appropriate for the treatment type (if any) for the field application of timber preservatives to cut ends.

3.10 HOLES AND NOTCHES
Limit holes and notches, checks and half-housing for the structure to those allowable in N ZS 3604. Neatly form holes and notches for services without lessening the structural inte grity of the member.

3.11 CUTTING
Cutting for straightening to comply with NZS 3604.

3.12 EXPOSED TIMBER CONNECTORS AND FIXINGS
Do not use on any structural framing exposed to view unless detailed on the drawings.

3.13 POWDER ACTUATED AND MECHANICALLY POWERED FIXING
Comply with the OSH: Guidelines for the provision of facilities and general safety in the c onstruction industry, part 5, section 5.7.

3.14 ADDITIONAL FRAMING
Position and fix all necessary members for the fixing of all services, fittings, fixtures, edge s of linings or claddings, and to provide lateral support to load carrying framing.

3.15 FORM NAILED JOINTS
Fully drive nails in all structural joints with the number and location for each joint to the re quirements of NZS 3604. Except that 75mm x 3.15mm nails may be used in 35mm timbe r joints in wall frames and 90mm x 3.15mm nails may be used in 45mm timber joints in w

all frames. 100mm x 3.75mm nails should not be used without pre-drilling to 80% of nail diameter.

3.16 FORM BOLTED JOINTS
Drill for and set bolts to ensure full bearing and development of the joint strength, with ten sion to just set the washers into timber.

3.17 FIT CONNECTORS AND FIXINGS
Fit connectors and fixings to obtain full bearing over all contact surfaces and full develop ment of the required loading capacity for that particular joint.

3.18 FIT CAVITY BATTENS
Fit and fix 20mm cavity battens over wall underlay or rigid air barrier, fully nail to timber st uds to the requirements of the manufacturer or to NZS 3604. Fit and fix related flashings and cavity closers.

3.19 FIT BRACING
Fit and fix subfloor, wall and roof bracing elements to the requirement of NZS 3604 and to develop the full number of bracing units required.

3.20 DPC TO TIMBER
Refer to 4161 UNDERLAYS, FOIL AND DPC section

Completion

3.21 CLEAN UP
Clean up timber framing as the work proceeds so no offcuts, chips, sawdust or any other matter or items remain behind the claddings or linings.

3.22 LEAVE
Leave work to the standard required by following procedures.

3.23 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS

Substitutions are not permitted to the following, unless stated otherwise.

4.1 EXTERIOR WALL FRAMING

Member	Type	Grade	Treatment
Exterior walls:	Laserframe®	SG8	H3.2
Parapets:	Laserframe®	SG8	H3.2
Enclosed decks and balconies:	Laserframe®	SG8	H1.2
Cantilevered joists enclosed decks and balconies:	Laserframe®	SG8	H3.2
Cavity battens:	Radiata pine	Merch	H3.1
Jamb battens:	Radiata pine	Merch	H3.1

4.2 ROOF FRAMING

Member	Type	Grade	Treatment
Rafters:	Laserframe®	SG8	H1.2
Trusses:	Laserframe®	SG8/SG10	H1.2
Purlins:	Laserframe®	SG8	H1.2

Ceiling joists:	Laserframe®	SG8	H1.2
Valley boards:	Radiata pine	Merch	H1.2
Sarking:	Radiata pine	Merch	H1.2
Skillion roof framing:	Laserframe®	SG8	H1.2
Enclosed flat roof framing:	Laserframe®	SG8	H1.2

4.3 EXPOSED FRAMING

Member	Type	Grade*	Treatment
Posts:	Pinex®	SG6	H3.2 CCA
Joists:	Laserframe®	Pinex verified SG 8	H3.2 CCA
Boarding for exterior decks:	Pinex®	Merch	H3.2 CCA
Exterior stairs and steps:	Pinex®	SG8	H3.2 CCA
Pergola:	Pinex®	SG8	H3.2 CCA
Ground contact members	Pinex®	SG6	H5 CCA

Note: All CCA preservative code 01 or 02

4.4 INTERIOR FRAMING

Member	Type	Grade	Treatment
Non structural walls:	Laserframe®	SG8	H1.2
Structural and braced walls:	Laserframe®	SG8	H1.2

4.5 EXTERIOR TIMBER WALL BATTENS

Timber/grade/treatment: Gauged, H3.1 treated radiata pine

4.6 DAMP-PROOF COURSE

Refer to 4161 UNDERLAYS, FOIL AND DPC section

4131AL ALLCO VOLCLAY® TANKING

1. GENERAL

This section relates to the application of ***allco*** **Waterproofing Solutions Limited** Volclay ® bentonite based tanking systems:
- Voltex®
- Swelltite®
- Waterstop-RX®

1.1 RELATED WORK
Refer to 2242 BACKFILLING for back filling after installation of the tanking system.

Documents

1.2 DOCUMENTS REFERRED TO
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC E2/AS1 External moisture

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are:

Volclay®	Swelltite composite waterproofing membrane product manual Technical Data sheet
Volclay®	Voltex® bentonite geotextile waterproofing product manual Technical Data sheet
Volclay®	Waterstop-RX® bentonite waterstop system product manual
Volclay®	Cetseal Sealant/Adhesive Technical Data
Volclay®	Aquadrain® 15X Technical Data
Volclay®	Architectural Specifications and Drawings
Volclay®	Quality Assurance Manual

Backfill Tech Ref
Cetcoat Tech Data Sheet
BRANZ Appraisal 507 - Volclay® Waterproofing System

Copies of the above literature are available from ***allco*** **Waterproofing Solutions Limited**

Web:	www.allco.co.nz
Email:	info@allco.co.nz
Telephone:	09 448 1185
Facsimile:	09 448 1186

Warranties

1.4 WARRANTY - MANUFACTURER/SUPPLIER
Provide warranty for:

15 years:	For walls only
18 years:	For wall and footing

- Provide the warranty in the standard form in the general section 1237WA WARRANTY AGREEMENT.
- Commence the warranty from the date of practical completion of the contract works.

Requirements

1.5 NO SUBSTITUTIONS
Substitutions are not permitted to any specified ***allco* Waterproofing Solutions Limited** system, or associated components and products.

1.6 QUALIFICATIONS
Applicators to be experienced in the application of bentonite based tanking membranes a nd approved by ***allco* Waterproofing Solutions Limited**. If requested provide evidence of experience prior to commencing work.

1.7 PRE INSTALLATION REVIEW
Convene a pre-installation meeting to review to establish procedures to maintain required working conditions and to co-ordinate this work with related and adjacent work. Verify fin al waterproofing waterstop details comply with ***allco* Waterproofing Solutions Limited** c urrent installation requirements and recommendations. Refer to the Pre-installation chec k list.

Meeting attendees to include:
- Contractor
- Waterproofing installer
- Mechanical contractor where work extensively penetrates the waterproofing
- Architect
- Engineer
- Project manager
- Principal/Owner
- ***allco* Waterproofing Solutions Limited**

1.8 INSTALLATION REPORT
***allco* Waterproofing Solutions Limited** to carry out inspections to monitor waterproofing material installation compliance with the project contract documents and manufacturer's p ublished literature and site specific details. Provide reports and digital photographs docu menting each inspection. Refer to the Site Observation form.

Provide copies of the reports to:
- Contractor
- Waterproofing installer
- Architect
- Engineer
- Project manager
- Principal/Owner

Inspections to include substrate examination, beginning of waterproofing installation, peri odic intervals, and final inspection prior to concrete or backfill placement against the wate rproofing.

Performance

1.9 PRESSURE RATING
Obtain written assurance from ***allco* Waterproofing Solutions Limited** that the waterpro ofing system, comprising membrane and jointing methods, is capable of sustaining the de signated water pressure head. Refer to SELECTIONS for the designated water pressure head.

1.10 VAPOUR FLOW RESISTANCE
The membrane system to have a vapour flow resistance of not less than 90 MN s/g.

2. PRODUCTS

Materials

2.1 SWELLTITE COMPOSITE WATERPROOFING MEMBRANE
Volclay® Swelltite® composite waterproofing membrane, minimum 2 - 3mm thick consistin g of a 0.5mm thick, HDPE geomembrane liner bonded to a layer of bentonite clay granule s 1.9mm thick, with a 0.04mm thick siliconised release liner.

	Test method	Typical value
Tensile strength	ASTM D-412	136.4 kg/cm²
Elongation	ASTM D-412	25%
Resistance to puncture	ASTM E-154	53.5 kg/cm²
Permeability	ASTM D-5084	6.5 x 10-11 cm/sec.
Water vapour transmission	ASTM E-96	0.093 grains/hr/m²
Low temperature flexibility	ASTM C-836	Unaffected
Decay resistance	ASTM E-154	Unaffected
Resistance to hydrostatic head	ASTM D-5385	70 metres

2.2 WATERSTOP-RX 101
25mm x 19mm x 5m rolls of rectangle flexible strip of bentonite and butyl rubber compoun d for use in concrete construction joints.

Accessories

2.3 VOLCLAY BENTOSEAL®
Trowel grade sodium bentonite compound used as a detailing mastic around penetrations , corner transitions and grade terminations.

2.4 VOLCLAY CETCOAT®
Cement based crystalline waterproofing system.

2.5 VOLCLAY WATERSTOPPAGE®
Granular Volclay® sodium bentonite.

2.6 VOLCLAY SEAMTAPE®
50mm wide butyl rubber sealant tape.

2.7 TERMINATION BAR
25mm minimum wide aluminium bar with pre-punched holes on 300mm centres for fasten ing.

2.8 SUB-SURFACE DRAINAGE COMPOSITE
Aquadrain drainage composite by CETCO to manufacturer's recommendations.

Protection sheet

2.9 FIBRE CEMENT PROTECTION SHEET
Treated cellulose fibre in a matrix of cement and sand autoclaved sheet.

3. EXECUTION

Conditions

3.1 COMPLY
Comply with ***allco* Waterproofing Solutions Limited** requirements and instructions. Unl ess otherwise detailed, install in accordance with Volclay® waterproofing details.

3.2 OBTAIN FROM SINGLE MANUFACTURER
Obtain bentonite geotextile waterproofing and prefabricated drainage materials from a sin gle manufacturer.

3.3 STORE
Store Volclay® waterproofing membranes and accessory materials under conditions that ensure no deterioration or damage. Store in dry conditions protected from premature con tact with water.

3.4 DE-WATERING
Maintain water level at not less than 300mm below the level of the base concrete during t he progress of the entire tanking work. Run pumps continuously when required.

3.5 CHECK SUBSTRATE
Check that the substrate is smooth and without sharp deflections or pockets to achieve w ork of the required standard. Complete any remedial work identified before commencing any work.

Application - general

3.6 INSTALLATION
Install Voltex® waterproofing system with the dark grey woven geotextile side facing the c oncrete to be waterproofed in both horizontal and vertical applications.

3.7 SEALANT/ADHESIVE - WALL / MEMBRANE JUNCTIONS
Apply Cetseal sealant/adhesive as a grade termination sealant, membrane lap sealant an d waterstop adhesive to secure Volclay® Waterstop-RX products to concrete, metal and P VC horizontal and vertical surfaces, all in accordance with **allco Waterproofing Solution s Limited** requirements and instructions.

3.8 PREVENT PREMATURE HYDRATION
When threat of rain is imminent, installed Swelltite bentonite products not already contain ed by concrete or backfill should have all seams taped with Volclay Seam tape to decreas e the chance of hydration. After any precipitation, standing water should be pumped off V oltex underslab waterproofing as soon as possible.

3.9 COVER EXPANSION JOINTS
Cover expansion joint material placed during substrate preparation. Cover, trowel 3mm t hick, 150mm wide layer of Bentoseal® centred over expansion joint. Install 600mm wide strip of Voltex® centred over the expansion joint. Then install the main course of Voltex®.

Application to concrete masonry unit block walls and Precast panels - Swelltite

3.10 FORM FILLET BEADS
Pour 18mm thick, continuous Waterstoppage® fillet at all inside wall corner transitions. Tr owel Bentoseal® form-tie pocket/patches and any slightly irregular honeycomb areas.

3.11 INSTALL SWELLTITE MEMBRANE TO BASE OF WALL
Start at the base of the wall and install Swelltite® sheet horizontally, remove clear release film and place dark side membrane against the wall. For hydrostatic conditions, cover the entire footing and overlap waterproofing membrane from underslab work a minimum of 15 0mm. Attach Swelltite ® using washer-headed mechanical fasteners centred 600mm arou nd the sheet edge. Overlap all adjacent sheet edges a minimum 50mm. Stagger all vertic al overlap seams a minimum of 300mm. Refer to details in Volclay® Architectural Specific ations and Drawings for heel type foot, and flush footing.

3.12 INSTALL SWELLTITE MEMBRANE TO REMAINDER OF WALL
Install Swelltite® either vertically or horizontally. Continue up wall to finish grade elevation, staggering sheet roll ends of adjacent courses a minimum 300mm. Tape all 50mm laps wi th Volclay seam tape and terminate at grade with termination bar to detail ST-202A (heel t ype foot), ST-202H (flush footing).

3.13 TRIM AROUND PENETRATIONS
Cut Swelltite® to fit snugly around penetrations. Detail around all penetrations with 18mm cant of Bentoseal® 6mm thick over substrate a minimum radius of 40mm and onto penetr ation.

3.14 TERMINATION AT GRADE
Terminate at grade with metal termination bar fastened at 300mm centres. Where approp riate such as garden or planter areas and stairs use Volclay Cetcoat at the above below g round transition. Refer to details in Volclay® Architectural Specifications and Drawings.

3.15 INSPECT BEFORE BACKFILLING
Inspect finished Swelltite® installation and repair any damaged material prior to backfill pl acement. Ensure Swelltite® is not displaced during backfilling placement or soil compactio n. Do not leave exposed. Backfill within 1-2 days or when precipitation is imminent.

Protection

3.16 PROTECT VERTICAL SURFACES
Protect the vertical tanking from damage before covering with protective sheets.

3.17 INSTALL CELLULOSE FIBRE PROTECTION SHEETS
Neatly scribe and fit sheets, spot fixing them with adhesive and taped over joints, all to ***all co* Waterproofing Solutions Limited** requirements for this work, to fully protect the whol e of the tanking as backfill is placed.

Backfilling

3.18 MONITOR BACKFILLING
When backfilling to Volclay tanking membranes, there must be no voids in the backfill, reg ardless of the type of material being used for backfill. It is the contractor's responsibility t o achieve this. The top 500mm must be compacted with a walk behind vibratory compact or or some other mechanical soil compaction device to the extent that foot traffic on the lif t does not leave indentations greater than 12mm. Ensure that the compactor does not to uch the waterproofing membrane.

If coarse aggregate is used, over 25mm maximum size, a protection layer must be applie d over the membrane. Either use min 3.5mm coreflute, 20mm high density polystyrene or 6mm fibre cement board.

Completion

3.19 CLEAN UP
Clean up as the work proceeds.

3.20 LEAVE
Leave this work in a sound, coherent, voidless and impermeable smooth condition, compl etely waterproof, free of any defect and with protection sheets firmly in place.

3.21 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS
Substitutions are not permitted to the following, unless stated otherwise.

Performance

4.1 PRESSURE RATING
Designated water pressure head: 2 metres

4.2 INSTALLATION REPORT
Installation report: Required

Tanking

4.3 SWELLTITE COMPOSITE WATERPROOFING MEMBRANE
Location: Around foundation walls and footings

4.4 FIBRE CEMENT PROTECTION SHEET
Location: Around foundation walls and footings
Manufacturer: Hardies
Brand/type: Hardiflex
Thickness: 6mm

4161TC UNDERLAYS, ACCESSORIES, FOILS AND DPC - COMMER CIAL

1. GENERAL

This section relates to the application of **Thermakraft** Industries (NZ) Ltd, DPC, DPM, un derfloor foil insulation, wall underlays and roofing underlays:
- for use in commercial applications

1.1 RELATED WORK
Refer to ~ for ~

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

NZMRM	New Zealand Metal Roofing Manufacturers Inc.

The following definitions apply specifically to this section:

Wall underlay	the same meaning as defined in NZBC E2/AS1, covering kraft based and synthetic wall underlays, sometimes called, wall wraps, building w raps or building papers.

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following docume nts are specifically referred to in this section:

NZBC C/AS1-AS7	Protection from fire
NZBC E2/AS1	External moisture
AS 1530.2	Methods for fire tests on building materials, components and structure s - Test for flammability of materials
NZS 2295	Pliable, permeable building underlays
AS/NZS 2904	Damp-proof courses and flashings
NZS 3604	Timber-framed buildings
AS/NZS 4200.1	Pliable building membranes and underlays - Materials
NZS 4214	Methods of determining the total thermal resistance of parts of building s
AS/NZS 4389	Safety mesh
AS/NZS 4534	Zinc and zinc/aluminium-alloy coatings on steel wire
NZMRM CoP	NZ metal roof and wall cladding Code of Practice

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Thermakraft documents relating to work in this section are:
Thermakraft product manual and technical data sheets.
BRANZ Appraisal 356 - Thermakraft **Cover-Up™** Breather-Type Building Wrap
BRANZ Appraisal 329 - **Supercourse 500** Damp-Proof Course and Concealed Flashing
BRANZ Appraisal 560 - **Mirrablack** Damp Proof Course and Concealed Flashing
BRANZ Appraisal 549 - **Diflex** 130 Building Wrap
BRANZ Appraisal 614 - **Aluband™/Aluminium** Window Sealing System
BRANZ Appraisal 651 - Thermakraft **Covertek™** 407 Fire Retardant Self Supporting Syn thetic Roofing Underlay
BRANZ Appraisal 695 - **Watergate-Plus** Fire Retardant Wall Underlay
BRANZ Appraisal 710 - Thermakraft Covertek 403 Absorbent Breathable Roof Underlay
BRANZ Appraisal 711 - Thermakraft Covertek 403 Fire Retardant Absorbent Breathable Wall Underlay

Copies of the above literature are available from:

Web:	www.thermakraft.co.nz
Telephone:	0800 806 595

1.5 MANUFACTURER'S WARRANTY
Warrant this work under normal environmental and use conditions against failure of mater ials and execution. Thermakraft Industries Ltd warrant performance of products if design and installation complies with relevant technical literature, NZBC, and recognised industry Codes of Practice. Copy of Thermakraft Product Warranty available on request.

Requirements

1.6 NO SUBSTITUTIONS
Substitutions are not permitted to any specified materials, or associated products, compo nents or accessories.

1.7 INSTALLATION SKILL LEVELS
Installers to be experienced in the installation of **Thermakraft** products and familiar with **T hermakraft** Industries technical literature and the related documents listed in this design i .e. NZMRM CoP NZ metal roof and wall cladding Code of Practice.

2. PRODUCTS

Materials

DPM

2.1 DAMP-PROOF MEMBRANE - MEDIUM DUTY
Thermathene Orange™ 200, a medium duty high impact film, 200 microns thick and ma nufactured for the building industry, with a water vapour resistance of no less than 90MNs /g, to NZBC Clause E2/AS1. Refer to SELECTIONS for type of jointing tape.

DPC

2.3 EMBOSSED POLYETHYLENE
Supercourse 500, hi-impact polyethylene film to AS/NZS2904 and embossed on both sid es. Thickness 500 microns minimum, manufactured for use as a damp-proof course and concealed flashings around doors and windows and to BRANZ Appraisal 329. Refer to S ELECTIONS for type of jointing tape.

2.4 HEAVY KRAFT BITUMINOUS COATED AND POLYMERIC FILM LAMINATE
Thermakraft MirraBlack DPC, a bitumen saturated kraft with high strength polymeric film , to BRANZ Appraisal 560. Refer to SELECTIONS for type of jointing tape.

2.5 PERIMETER DPC
Thermakraft Perimeter DPC, a heavy kraft impregnated with high grade bitumen.

2.6 SYNTHETIC FIRE RETARDANT SELF SUPPORTING NON-WOVEN ROOFING UNDER LAY
CoverTek™ 407, a fire retardant non-woven self supporting roofing underlay, consisting of two spun-bonded polyolefin fabric layers bonded to a micro porous inner layer, designe d for use as a water absorbent, breathable, water resistant roofing underlay for sloped roo fs. **CoverTek™ 407** has a flammability index of ≤ 5, tested to AS 1530.2. To NZBC C/A S1, NZBC C/AS2-AS7 and can be used in exposed to view in occupied spaces.

Accessories

2.8 WINDOW AND DOOR SEALING TAPE
Thermakraft Aluband™ Window Sealing Tape system consists of synthetic faced reinf orced bituminous window sealing tape, **Thermakraft Aluband™** Corner Moulding™ piec e, used in conjunction with the **Thermakraft Aluband™** Hand Tool to ensure good adhes ion and a tight fit into corners. See **Thermakraft** Data Sheet 312 for installation details a nd BRANZ Appraisal 614.

2.9 THERMAL BREAK MATERIAL TO DHS PURLINS
Thermax B extruded polystyrene (HD XPS) 50mm wide cut to the required length. Fixed to top edge of all DHS purlins under roof underlay and roof sheeting.

2.10 WIRE NETTING
75mm galvanized hexagonal wire netting to AS/NZS 4534.

2.11 GUTTER AND UNDER FLASHINGS
Thermakraft 215™, bituminous breather type underlay to NZS 2295 cut to width for use under valley, apron flashing and internal gutters.
Soffit liner cut to width from **Thermakraft 210™** bituminous breather type underlay. Refe r to SELECTIONS.

2.12 TAPE
Thermakraft tapes to compliment the underlay. Pressure sensitive aluminium foil tapes f or joining foil insulation and vapour barriers. **Thermakraft Aluband™ Window Sealing Tape** can be used to repair damaged bituminous underlays.

3. EXECUTION

Conditions

3.1 GENERAL REQUIREMENTS
Design application and installation of **Thermakraft** Building products to NZBC E2/AS1, B RANZ Appraisals, **Thermakraft** Technical Literature and Industry Codes of Practice.

3.2 STORAGE
Store building underlays and accessory materials, under conditions that ensure no deterio ration or damage. Store rolls in an upright position on a smooth floor and protected from sunlight, UV radiation and moisture.

3.3 INSPECTION
Before starting work, check that the building construction phase will allow work of the req uired standard. Carry out remedial work identified before laying underlay.

Application DPC / DPM

3.4 DPC TO LOSP/CCA TREATED TIMBER
Lay Supercourse 500 / MirraBlack DPC under LOSP or CCA treated bottom plate of all ti mber framed walls on concrete, in a single layer with 50mm overlaps at joints to provide a waterproof barrier.

3.5 DPC TO TIMBER / STEEL
Lay DPC under the bottom plate of all timber / steel framed walls on concrete, in a single l ayer with 50mm overlaps at joints to provide a waterproof barrier. Refer to SELECTIONS for type.

3.7 DPM TO CONCRETE FLOOR
Lay DPM under concrete floor substrate over sand binding, in a single layer with 150mm overlaps at joints to provide a waterproof barrier. Refer to SELECTIONS for type. Tape all joints and penetrations with PVC tape.

Application - Roofing underlay

3.9 WIRE NETTING
Lay 75mm galvanized wire netting at right angles across the purlins and drawn taunt befo re fixing. Tie edges of netting together with galvanized wire clips.

3.10 ROOF UNDERLAY
Lay vertically over purlins on wire netting with a 150mm side lap. Fix securely to purlins with galvanized fixing clips. Lay underlay to avoid excessive dishing between purlins. W hen used vertically limit individual runs to 10 metres for bituminous underlays. Do not lay vertically on roof pitches under 10°.

Lay horizontally across the rafter/trusses starting at the gutter line with succeeding sheets in true alignment and lapping 150mm. Scribe around and fit neatly to all penetrations. Av oid prolong exposure by installing the roof immediately.

3.11 GUTTER AND UNDER FLASHINGS
Lay **Thermakraft 215™** bituminous breather type underlay cut to width by manufacturer f or use as an underlay to valley, apron flashings, and internal gutters. Lap under flashings with adjoining underlays. Fix **Thermakraft 210™** bituminous breather type underlay soffit liner from top plate down 150mm past ribbon plate.

Completion

3.12 CLEAN UP
Clean up as the work proceeds.

3.13 LEAVE
Leave work to the standard required by following procedures.

3.14 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS
Substitutions are not permitted to the following, unless stated otherwise.

4.1 DPC

Location:	Between timber and concrete
Type:	**Supercourse 500™**
Jointing tape:	**Aluband™** 50mm

4.2 PERIMETER DPC

Location:	Under and behind timber strapping
Type:	**Thermakraft Perimeter DPC**

4.3 DPM

Location:	Under Concrete floor slab
Type:	**Thermathene Orange 200** Medium
Jointing tape:	48mm black PVC tape

4.4 ROOFING UNDERLAYS

Location:	Under steel roof sheeting and flashings
Type:	
Jointing tape:	**Aluband™** 50mm

Accessories

4.5 WINDOW/DOOR SEALING SYSTEM

Location:	To Aluminium windows
Type:	**Thermakraft Aluband™ Window Sealing Tape**

4.7 THERMAL BREAK INSULATION TO TOP OF DHS PURLINS

Location:	Under roofing to top of DHS purlins
Type:	**Thermax B™** expanded foam 50mm wide minimum.
Thickness:	10mm

4.8 WIRE NETTING

Location:	Under roofing underlay
Type:	75mm galvanized wire netting

4.9 GUTTER AND UNDER FLASHINGS

Location:	Apron flashings to roof
Type:	Apron flashing underlay
Jointing tape:	**Aluband™** 50mm

4171E ECOPLY® RIGID AIR BARRIER SYSTEM

1. GENERAL

This section relates to the use of **Ecoply® Plywood** as a rigid air barrier system in both re sidential and commercial buildings.

1.1 SCOPE OF WORK
Plywood backing to both sides of parapet wall framing under ALUCOBUILD and Exotec cl addings

Documents

1.2 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following docume nts are specifically referred to in this section:

NZBC B1/AS1	Structure
NZBC B2/AS1	Durability
NZBC E2/AS1	External moisture
AS/NZS 1170.2	Structural design actions - Wind actions
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
AS/NZS 1604.3	Specification for preservative treatment - Plywood
AS/NZS 2269.0	Plywood - structural - specifications
NZS 3602	Timber and wood-based products for use in building
NZS 3603	Timber Structures Standard
NZS 3604	Timber-framed buildings
IBC AC148	Acceptance Criteria for Flexible Flashing Materials.

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS
CHH Woodproducts documents relating to work in this section are:
Ecoply® Barrier Specifications and Installation Guide
Ecoply® Barrier Technical Notes
Ecoply® Barrier CAD Details.

Copies of the current product literature are available from Carter Holt Harvey Woodprodu cts Ltd
Web: www.chhwoodproducts.co.nz
Telephone: 0800 326 759

1.4 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and pr oducts.

Performance

1.5 STRUCTURAL FIXINGS, WIND
Design and use the fixings appropriate for the wind zone (R) and topographical classificati on (T) of this site and building height; as required by NZS 3604 and the wind loads on vari ous wall areas as given by AS/NZS 1170.2.

1.6 STRUCTURAL FIXINGS, EARTHQUAKE
Use fixings and methods capable of sustaining the loads appropriate to the area as set o ut in NZS 3604 and as required by NZS 1170.5.

2. PRODUCTS

Materials

2.1 ECOPLY® PLYWOOD
Radiata pine veneer ply to AS/NZS 2269.0, face sanded, D-D grade structural grade, 12 mm thick, H3.2 CCA treated to AS/NZS 1604.3, and sealed on the face and edges using a powder coating process.

Components

2.2 NAILS

Application	Minimum nail length
Ecoply® Barrier (not used as bracing)	40 x 2.5mm flat head hot dipped galvanized
Ecoply® Barrier (bracing)	50 x 2.8mm hot dipped galvanized

2.3 CAVITY BATTENS FOR CAVITY WALL CLADDINGS
47 x 21mm Merchant Grade Pinus Radiata cavity battens.

2.4 PVC FLASHINGS
PVC horizontal and PVC cavity closure flashings or acceptable flashings to NZBC E2/AS 1 table 20 and 21.

2.5 FLEXIBLE FLASHING TAPE
Ecoply Barrier Sealing Tape to vertical sheet joints and internal/external corners Rolls ar e 60mm wide x 30m long.

3. EXECUTION

Conditions

3.1 HANDLE
Handle sheets carefully and reject those with damaged faces or edges.

3.2 STORE
Store sheets flat in stacks clear of the ground, supported without sagging on evenly spac ed horizontal bearers. Protect from damage and weather.

3.3 WALL FRAMING
Kiln dried timber framing sizes and set outs to NZS 3604 with stud and nog centres and ti mber widths to **Ecoply®** Barrier Specification and Installation Guide. Treatment to NZBC B2/AS1 and NZS 3602.

Application

3.4 SUPPORT EDGES AND JOINTS
Fully support edges and joints. Studs maximum 600mm centres and nogs maximum 120 0mm centres with the framing width of 45mm at each **Ecoply® Barrier** sheet joint.

3.5 FASTENERS
Minimum 7mm from edge of the sheet, 150mm centres around perimeter and 300mm cen tres on intermediate supports of each sheet.

3.6 FIXING ECOPLY® SHEETS
Fix sheets vertically. Sheets to overhang bottom plate by 50mm over timber and or concr ete foundations. Allow 2-3mm expansion gap between sheets. Cut edges of sheet to be placed to the top. All other cuts and penetrations to be covered by a flexible flashing tape . Maintain ground clearance of 100mm minimum to decks and permanently paved groun d and 175mm minimum to unprotected ground.

3.7 VERTICAL ECOPLY® SHEET JOINTS
Seal vertical joints, internal and external corners, with 60mm wide Ecoply Barrier Sealing tape. Dust out joints before applying the tape. Where temperature is below 10° C warm up tape to ensure adhesion with the sheets.

3.8 HORIZONTAL ECOPLY® SHEET JOINTS
Flash horizontal joints with Ecoply Barrier PVC Horizontal Z Flashing (RDZF7).

Completion

3.9 PROTECTION
Protect work from the weather until it is covered, coated or sealed.

3.10 REPLACE
Replace damaged or marked elements.

3.11 LEAVE
Leave work to the standard required by following procedures.

3.12 REMOVE
Remove all debris, unused materials and elements from the site.

4. SELECTIONS

4.1 ECOPLY® PLYWOOD

Location:	Parapet wall framing
Manufacturer:	CHH Woodproducts
Brand/grade:	Ecoply® D-D grade
Stress grade:	F8
Thickness:	12mm
Treatment:	H3.2 CCA

4.2 FIXINGS

Application	Minimum nail length
Ecoply® Barrier as structural bracing	50 x 2.8mm flat head hot dipped galvanized or better

4224 TIMBER EXTERIOR TRIM

1. GENERAL

This section relates to lengths of timber fixed on site, either associated with timber cladding, or used as isolated trim with other wall cladding or soffit materials:
- Timber trim and fascia boards as detailed on working drawings

Documents

1.2 DOCUMENTS REFERRED TO
Documents referred to in this section are:

NZS 3602	Timber and wood-based products for use in building
NZS 3604	Timber-framed buildings

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

2. PRODUCTS

Materials

2.1 TIMBER TRIM
To NZS 3602, treated H3.1 unless durable heart wood, to profiles detailed/scheduled.

2.2 PROPRIETARY TIMBER TRIM
To NZS 3602, treated H3.1.

Components

2.3 NAILS, GALVANIZED
60mm x 2.8mm galvanized steel wire jolt/flat/raised head generally. Use other sizes to su it profiles being fixed.

2.4 NAILS, STAINLESS STEEL
60mm x 2.8mm stainless steel wire jolt/flat/raised head generally. Use other sizes to suit profiles being fixed.

Finishes

2.5 PRIMER
Water borne acrylic or solvent borne oil-alkyd primer to suit the timber and proposed paint ing system.

3. EXECUTION

Conditions

3.1 STORAGE
Take delivery of trims undamaged and unmarked and store on site flat and true, under co ver, and clear of areas where work is in progress, to ensure materials are of the required standard when fixed in place.

3.2 SUBSTRATE
Ensure that the substrate to trims will allow work of the required standard. If it does not, d o not proceed until the substrate has been rectified.

Application - preparation

3.3 PRIMING AND SEALING
If not pre-finished before delivery, coat all faces and edges immediately. Then fillet stack trim until fixed. Keep dry and undamaged. Coat to suit the paint system specified in paint ing section/s. Allow to re-coat if exposed for more than one month before the final coatin g is applied.

Application

3.4 EXECUTION
To NZS 3604, except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Car pentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.5 TIMBER TRIM
Using full lengths, scribe internal joints and mitre external and running joints. Fully suppo rt all joints and fix securely, plumb, level and true to line and face, fully nailed. For paint fi nish prime joint edges before fixing, otherwise seal them without runs onto any exposed f ace.

3.6 NAILING, PAINT FINISH
Punch nails and patch prime external trim being painted, before stopping as specified und er painting preparation.

Completion

3.7 LEAVE
Leave the whole of this work free of blemishes, undamaged and to the standard of finish r equired for following procedures.

3.8 PROTECTION
Protect the completed work and make good before any surface finish is applied.

3.9 REPLACE
Replace all damaged or marked elements.

3.10 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS

4.1 TIMBER TRIM

Species/grade:	Pinus radiata
Treatment:	H3.2
Finish:	Dressed

4.2 PROPRIETARY TIMBER TRIM: FASCIA

Location:	Rear wall of building
Species/grade:	Pinus radiata
Treatment:	H3.2
Finish:	Dressed

4.3 PRIMER

Brand/type:	Refer to Resene painting Spec

4251A ALUCOBUILD ALUMINIUM COMPOSITE CLADDING

1. GENERAL

This section relates to the design, fabrication, supply and installation of PSP **ALUCOBUILD** aluminium composite panel cladding:
It includes external wall cladding:
- fixed to timber, concrete and light steel framing complete with all necessary anchors and fittings
- to provide a total installation.

1.1 SCOPE OF WORK
Exterior cladding to front faces and fascias of new building. Refer to working drawings for extent. This is to be a design /build system by PSP and their approved installer.

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

LDPE	Low density polyethylene

The following definitions apply specifically to this section:

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

AS/NZS 1170.2	Structural design actions - Wind actions
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
AS 1866	Aluminium and aluminium alloys - Extruded rod, bar, solid and hollow shapes
AS 2848	Aluminium and aluminium alloys - Compositions and designations - Wrought products
NZS 3604	Timber-framed buildings
AS/NZS 4284	Testing of building facades
AS/NZS ISO 9001	Quality management systems - Requirements

Window Association of New Zealand: Specification for powder organic coatings on architectural aluminium products

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents relating to this part of the work:

PSP **ALUCOBUILD ACM** Technical Data Sheets

Manufacturer/supplier contact details

Company:	PSP New Zealand Ltd
Web:	www.psp.co.nz
Email:	customerservices@psp.co.nz
Telephone:	0800 786 883

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER
Provide a PSP **ALUCOBUILD ACM** material warranty:

15 years:	For materials

- Provide this warranty on the manufacturer/supplier standard form.

- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

1.6 WARRANTY - INSTALLER/APPLICATOR
Provide an installer/applicator warranty:
15 years: For installation of PSP **ALUCOBUILD** cladding system

- Provide this warranty on the installer/applicator standard form.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Requirements

1.7 QUALIFICATIONS
Installers to be as follows:
- Certified PSP **ALUCOBUILD** installers
- or alternatively, installers approved by PSP New Zealand Ltd to carry out the work.
If requested provide evidence of qualification / experience prior to commencing work.

1.8 NO SUBSTITUTIONS
Substitutions are not permitted to any of the specified systems, components and associated products listed in this section.

1.9 SAMPLES
Refer to the general section 1270 CONSTRUCTION for details of how samples will be reviewed.

Provide the following samples for review by the Contract Administrator:
Submit for assessment samples of all materials before beginning fabrication: 300mm x 450mm for sheets and 300mm long for aluminium extrusions. Provide one sample for each material/finish visible in the finished work. In addition provide a sample of a completed joint.
The general section 1270 CONSTRUCTION describes how samples are to be addressed. Use this clause to describe specific requirements for the samples and prototypes.

1.10 SHOP DRAWINGS

Provide shop drawings to show the general arrangement for review and approval by Client /Architect including, but not be limited to:
- design calculations
- fully dimensioned elevations of all elements (minimum scale 1:50)
- complete details of construction, connections and all support systems (scale 1:10)
- dimensions of all typical elements and of any special sizes and shapes
- provision for the exclusion and/or drainage of moisture
- jointing details and method of fixing between individual elements and between this installation and adjacent work, including adjustment
- adjustment of fixings to ensure accurate alignment of composite cladding
- sealant types and full size sections of all sealants and backing rods
- provision for thermal movement
- provision for seismic movement and movement under wind loads
- sequence of installation
- co-ordination requirements with other work
- a full schedule of materials, finishes, componentry, hardware and fittings.

If requested provide the following additional information:
~

Submit shop drawings for review to the Contract Administrator.

- ~ working days (at least) before fabrication is planned to commence, provide shop drawings for review.

- Complete shop drawing review before commencing fabrication.

1.11 FOR MANUFACTURE AND INSTALLATION (FMI) DRAWINGS
In addition to the Shop Drawings referred to in SHOP DRAWINGS a set of FMI document ation needs to be provided incorporating all the changes to the Shop Drawings to record any as-built construction tolerances of the trades preceding the ALUCOBUILD cladding th at may alter the appearance of the ALUCOBUILD cladding.

If requested provide the additional information

Submit FMI drawings for review to the Contract Administrator
- 10 working days (at least) before fabrication is planned to commence for review
- Complete FMI drawing review for commencing fabrication.

Compliance information

1.12 INFORMATION REQUIRED FOR CODE COMPLIANCE
Provide the following compliance documentation: -
- Applicators approval certificate from the manufacturer / importer / distributor
- Manufacturer's, importers or distributors warranty
- Installer's / applicator's warranty
- Producer Statement - Construction from the applicator / installer
- Producer Statement - Construction Review from an acceptable suitably qualified person
- Other information required by the BCA in the Building Consent Approval documents.

Performance - design

1.13 DESIGN REQUIREMENTS
Refer to SELECTIONS for requirements.

Performance - Wind (design by contractor)
Refer to 1220 PROJECT clause or it can be added to the SELECTION clauses.
(Additional performance options available for other environmental factors).

1.14 DESIGN PARAMETERS - NON SPECIFIC DESIGN
Design the installation to the wind zone parameters of NZS 3604, table 5.4.
Refer to general section 1220 PROJECT for details.

Performance - general

1.15 LABORATORY TESTING
All construction details represented on Shop Drawings must be based on laboratory testin g results. Where such testing information is not available conduct laboratory testing of a prototype of the building facade to AS/NZS 4284.

1.16 FABRICATION
All cladding panels are factory fabricated and assembled to PSP **ALUCOBUILD** Data Sh eets. When reinforcement of the panel is required apply the PSP Stiffening System to the reverse face of panels.

1.17 QUALITY CONTROL
Maintain an approved quality control system in accordance with AS/NZS ISO 9001, coveri ng all stages of design, fabrication, installation and completion of the aluminium cladding and soffits.

1.18 WEATHER-TIGHT PERFORMANCE
Accept responsibility for the weather-tight performance of the completed cladding system, including all penetrations.

2. PRODUCTS

Materials

2.1 WALL UNDERLAY
Air Barrier formed with building underlay meeting the requirements of table 23 E2/AS1 or a Rigid Air Barrier for ULS loads in excess of 1.5kPa.

2.2 ALUMINIUM COMPOSITE PANELS
ALUCOBUILD ACM, a composite aluminium-faced solid; polyethylene cored, (Type LDP E) factory finished on face side with polyvinylidene fluoride PVF2 coating. Refer to SELE CTIONS for width, length, thickness and colour options.

Components

2.3 JOINT SEALANT
Sika AT Facade or other approved by PSP **ALUCOBUILD**.

2.4 FIXING SECTIONS
Extruded aluminium fixing sections. Aluminium alloy AA 6063-T5 to AS 1866 (designated to AS 2848).

2.5 FIXINGS AND FASTENINGS
Designed, supplied and installed by PSP **ALUCOBUILD**.

2.6 SCREWS
Stainless steel with countersunk square drive heads finished to match surrounding surfac es. Use concealed screws wherever practicable.

2.7 RIVETS
Aluminium alloy blind rivets of the same composition as the materials being joined.

2.8 COMPATIBILITY
All elements and accessories compatible on the electrochemical scale of metals so that n o excessive sacrificial corrosion will occur. All elements and accessories of an appropriat e quality, ensuring that no reduction in structural integrity or weathertightness occurs duri ng the guaranteed life of the panel system.

Finishes

2.9 POLYESTER POWDER ORGANIC COATING
In accordance with the Window Association of New Zealand: Specification for powder org anic coatings on architectural aluminium products.

3. EXECUTION

Conditions

3.1 PRE-INSTALLATION REQUIREMENTS
Check work previously carried out and confirm it is of the required standard for this part of the work.

3.2 INSTALLATION
All work to be carried out by competent and experienced installers, who are currently appr oved by PSP **ALUCOBUILD** in accordance with the manufacturer's stated requirements and the approved shop drawings. Carry out all cladding manufacture and installation und er the control and supervision of a nominated representative of PSP **ALUCOBUILD**.

3.3 TOLERANCES
For spacing of nominated supporting members permitted deviation is ± 5mm, and for verti cal or horizontal misalignment at the abutting ends of cladding permitted deviation is (2m m.

3.4 NON-FACTORY METAL FINISHES
Apply metal finishes using applicators currently approved in writing by the coating manufa cturer.

3.5 TOUCH-UP
In situ touch-up of factory applied finishes is not permitted unless a trial repair is subsequ ently approved in writing. Replace all other panels with a damaged finish.

3.6 HANDLE AND STORE
Handle and store pre-finished panels and materials so that no damage will be done to the form, material, or finish.

3.7 UNLOAD
Unload, handle and store preformed and pre-finished panels on site in vertical position fa ce-to-face respectively back-to back, with adequate protection to prevent scratches and d ents.

3.8 DO NOT DELIVER
Do not deliver to site any elements which cannot be immediately unloaded into suitable c onditions of storage.

3.9 DAMAGED COMPONENT PARTS
Do not install any component parts that are defective in any way, including warped, bowe d, dented and broken.

3.10 PROTECTION
Avoid distortion of elements during transit, handling and storage. Prevent pre-finished sur faces from rubbing together. Prevent contact with mud, plaster and cement, or with dissi milar metals.

3.11 DO NOT USE
Do not use adhesive tape, film, papers, or sprayed protective coatings, or masking tape, which might become bonded after exposure to sun or weather. Remove any temporary p rotection after installation. Remove any protective coating residues immediately.

Fabrication

3.12 FABRICATION
Do not start fabrication until "For Manufacture and Installation (FMI)" drawings and erectio n drawings have been reviewed and material samples approved.

3.13 FABRICATE
Fabricate aluminium composite panels and elements in the workshop wherever possible, ready for assembly and erection on the building site.

3.14 DO NOT ALTER
No cutting, trimming, welding or brazing of component parts during erection in any manne r that would damage the finish, decrease the strength or result in visual imperfection or fai lure in performance to be executed during erection. Return any component parts that req uire alteration to the shop for correction or replacement with new parts.

3.15 ANCHORAGE
Ensure anchorage of the cladding structure to the building structure is done to PSP **ALU COBUILD** approved methods and requirements.

3.16 COMPONENTS
Ensure all components are level, true to line with uniform joints and reveals.

Ensure the maximum deviation for vertical members to be 3mm maximum in a 5.2metre r un and to be 5mm maximum in a 11metre run.

Ensure the maximum deviation for horizontal members to be 3mm maximum in an 8.5met re run.

Ensure the maximum offset from true alignment between the abutting members does not exceed 1mm.

Ensure the tolerance of width of the joints between two panels is a maximum 2mm.

Substrate preparation

3.17 SUBSTRATES
Check substrate for alignment, whether concrete, timber or steel framing, before commen cing cladding installation. Notify the Contract Administrator in writing of any unacceptable conditions.

Installation

3.18 INSTALL UNDERLAY
Install underlay to all exterior timber walls and strapping being clad with aluminium compo site panels in accordance with the manufacturer's recommendations.

3.19 PENETRATIONS
Confirm that exterior wall openings have been prepared ready for the installation of all win dow and door frames and other penetrations through the cladding. Required preparatory work includes the following:
- wall underlay to openings finished and dressed off ready for the installation of window a nd door frames and other penetrations
- claddings neatly finished off to all sides of openings
- installation of flashings (those required to be installed prior to installation of penetrating elements).

3.20 INSTALL PANELS
Install aluminium composite panels in accordance with the "For Manufacture and Installati on (FMI)" drawings, stated design parameters (including joint size and design modules) r eviewed and approved shop drawings, approved prototypes and installation details. Co-o rdinate with related work. Consult and coordinate as necessary with installers of adjoinin g work, including window and door installations.

3.21 INSTALL PANEL JOINTS
Install panel joints in accordance with PSP™ **ALUCOBUILD** detail sheets.

3.22 FIX SOFFITS
Suspend and fix aluminium composite soffits on a proprietary suspension system. Supply and fix all edge flashings and edgings as detailed.

3.23 APPLY SEALANTS
Clean joints with solvent, mask adjoining surfaces, install backing rod or breaker tape and install sealant in accordance with the reviewed shop drawings, sealant profiles and seala nt manufacturer's instructions.

3.24 COMPLETE
Ensure the work is complete with all flashings, finishing and trim properly installed so the cladding system is completely weathertight.

Completion

3.25 ROUTINE CLEANING
Carry out routine trade cleaning of this part of the work including periodic removal all debr is, unused and temporary materials and elements from the site.

Clean panel surfaces with soft, clean cloths and clean water and in accordance with PSP **ALUCOBUILD** stated requirements. Finish with a clean squeegee. Do not use abrasive or alkaline materials.

3.26 DEFECTIVE OR DAMAGED WORK
Repair damaged or marked elements. Replace damaged or marked elements where rep air is not possible or will not be acceptable. Leave work to the standard required for follo wing procedures.

3.27 PROTECTION
Provide the following temporary protection of the finished work:
Protect all surfaces and finishes for damage as long as practicable, including the retentio n of all or any protective coatings provided by PSP **ALUCOBUILD**. Remove protective c oatings, using only the methods required by PSP **ALUCOBUILD**after the panels have be en installed on site.

3.28 ON COMPLETION
Trade clean all panel surfaces to remove all marks, dust and dirt to enable a visual inspec tion of all surfaces at completion of the installation and again at contract completion.

4. SELECTIONS

For further details on selections go to www.PSP.co.nz
Substitutions are not permitted to the following, unless stated otherwise.

Materials

4.2 WALL UNDERLAY

Brand/weight:	Refer to Section 4171E for Ecoply Rigid air barrier system
Flashing tape brand:	Ecoply Barrier tape

4.3 ALUMINIUM COMPOSITE PANELS

Location:	Front façade and soffits as detailed on drawings
Panel type:	PSP **ALUCOBUILD** ACM
Panel thickness:	4mm
Panel width:	1200 mm max Refer to Elevation drawings
Panel length:	Refer to elevation drawings
Panel joint:	12mm silicon butt joint
External surface finish:	PVDF Paint Finish coating
Reverse side finish:	Mill finish
Colour:	TBA

Finishes

PVDF Paint Finish coating from "World of Colours" range. Refer to Elevation drawings.

Components

4.5 SEALANT

Brand:	Sika AT Facade or other approved by PSP
Colour:	Black, Grey or White
Tool off:	To be smooth and 2mm to 4mm negative to the panel face

Schedules

4.6 CLADDING PANELS

Panel number/type	Finish	Location
Refer to Exterior elevations	PVDF Paint Finish	Front Facade

4.7 SOFFIT PANELS

Panel number/type	Finish	Location
Refer to Soffit plan	PVDF Paint Finish	Under front verandah

4257BI BONDOR NZ EPS STRUCTURAL INSULATED PANEL SYST EM

1. GENERAL

This section relates to the fabrication, supply and installation of **Bondor®** NZ EPS Structu ral Insulated Panel System.

1.1 RELATED WORK
Refer to 4311D for DIMOND PROFILED METAL ROOFING

Documents

1.2 DOCUMENTS REFERRED TO
Documents referred to in this section are:

NZBC B2/AS1	Durability
NZBC C/AS1-AS7	Protection from fire
NZBC E2/AS1	External moisture
AS/NZS 1170.2	Structural design actions - Wind actions
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
AS 1397	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
AS 1530.4	Methods for fire tests on building materials, components and structure s - Fire-resistance test of elements of construction
AS 2122.1	Combustion characteristics of plastics - Determination of flame propag ation - Surface ignition of vertically oriented specimens of cellular plast ics
NZS 3404 (1997)	Steel Structures Standard, section 3.3 and 3.4
AS/NZS ISO 9001	Quality management systems - requirements
ANSI FM 4880	Insulated Wall or Wall & Roof/Ceiling Assemblies
ISO 9705	Fire tests - Full scale room test for surface products
JIS G3312 Z27	Precoated Galvanised Sheets SCG1, SCG2 Hot-dip 55% aluminium-zi nc alloy-coated steel sheets and coils

1.3 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are:
Bondor® New Zealand Ltd Technical Manual, Structural Insulated Panel Guide 2011, and Maintenance Guide.

Copies of the above literature are available from **Bondor®** New Zealand Ltd.

Web:	www.bondor.co.nz
Email:	info@bondor.co.nz
Toll free phone:	0800 430 430
Toll free fax:	0800 333 066

Offices	Telephone	Facsimile
Auckland	09 580 6600	09 580 6616
Papamoa	07 574 3246	07 572 0922
Christchurch	03 342 8890	03 342 6176
Dunedin	03 488 3087	03 488 1731

Warranties

1.4 WARRANTY - INSTALLER
Provide Installer's warranty.

2 years: For workmanship

Refer to the general section 1237 WARRANTIES - INSTALLER for additional requirement s.

1.5 WARRANTY - MATERIALS
Provide **Bondor®** warranty. **Bondor®** New Zealand Limited warrants that the **Bondor®** in sulation panel supplied will perform as follows;

15 years: metal skin and finish (refer to **Bondor®** for details)
- Provide this warranty on the manufacturer/supplier standard form.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES - MATERIALS for additional requiremen ts.

Requirements

1.6 QUALIFICATIONS
All installation and sealing of the panels by an installer recommended by **Bondor®** New Z ealand Ltd.

Performance

1.7 DESIGN REQUIREMENTS
Structural design to be supported by a Producer Statement prepared by a Chartered Prof essional Engineer. Refer to Structural Design in **Bondor®** Design Guide and Structural In sulated Panel Guide for information relating to panel spans. Loading parameters to comp ly with the methods described in NZS 3404.3.3 and 3.4.
Refer to SELECTIONS.

1.8 FIXINGS, WIND
Design and use the fixings appropriate for the wind loads on various elements as given b y AS/NZS 1170.2. Refer to SELECTIONS.

1.9 FIXINGS, EARTHQUAKE
Use fixings and methods capable of sustaining the loads appropriate to the area as requir ed by NZS 1170.5.

1.10 FIRE TESTS
Bondor® EPS insulated panels have been tested by BRANZ and covered in the following reports:
- BRANZ FAR 2277 Performance Assessment under ISO 9705
- BRANZ FAR 2489 Performance Assessment under ISO 9705
- BRANZ Study Report 144
- BRANZ FSR 589 under AS 1530.4
- BRANZ FR 1789 under AS 1530.4

1.11 FIRE SAFETY
Bondor® Polyfoam EPS flame retardant insulated panels comply with NZBC C/AS1-AS7, 4.17.2 **Foamed plastics and combustible insulating materials**, AS 1530.4, AS 2122.1, and ISO 9705.
When tested to ISO 9705, **Bondor®** Polyfoam EPS panels provide Group Numbers in acc ordance with NZBC C/AS1-AS7, 4.17.1 Table 4.1 **Surface finish requirements**, as follo ws:

Construction method	Frames and rivets	Group Numbers
Standard FC	Aluminium	2
FR	Steel	1

Note: This specification relates specifically to Group 2 construction, for a Group 1 EPS sp ecification contact Bondor NZ for details.

1.12 DURABILITY
Bondor® panel systems comply with NZBC B2/AS1 when maintained to recommendation s in **Bondor®** maintenance guide.

1.13 THERMAL
The Polyfoam EPS panels to have a thermal conductivity of 0.042 W/mk.

1.14 AIR LEAKAGE
The panel's tongue and groove joints to have an air leakage of less than 0.5m³/hr/m² at 1 5Pa.

1.15 QUALITY CONTROL
Maintain an approved quality control system in accordance with AS/NZS ISO 9001, coveri ng all stages of design, fabrication, installation and completion of the panel structure.

2. PRODUCTS

Materials

2.1 EPS INSULATED PANELS - ROOF
Structural **Bondor®** EPS panel core manufactured to AS 1366.3 bonded to pre-finished st eel skin to both faces to JIS G3312 Z27, AS 1397, AZ 150.
SlipJoint® in the steel facings securely encloses the core. Panels available in various thic knesses from 50mm to 250mm.
Panels are closed cell, CFC free. Refer to SELECTIONS.

Components

2.2 RIVETS
Aluminium sealed rivets as specified by **Bondor®** New Zealand Ltd.

2.3 SCREW FIXINGS
Galvanized steel self drilling self tapping Tek screws with neoprene embossed washers.

2.4 FLASHINGS
All primary flashings to match exterior panel skin in material and finish. Internal flashings of aluminium angle mill finished, anodised or powder coated, supplied by **Bondor®** for joi ning panels together.

Accessories

2.5 ACCESSORIES
Use only accessories approved and supplied by **Bondor®**. All attachments and fasteners to be compatible with the other elements of the panel system.

2.6 SEALANTS
Neutral cure silicone.

2.7 FOAM
Polyurethane foam.

3. EXECUTION

Conditions

3.1 INSTALLATION
Install in accordance with the consented design drawings.

3.2 METAL FINISHES
All metal finishes applied by applicators currently approved in writing by the coating manu facturer.

3.3 TOUCH-UP
In situ touch up of factory applied finishes is not to be permitted unless a trial repair is sub sequently approved in writing. Replace all other panels that have a damaged finish.

3.4 HANDLE AND STORE
Handle and store pre-finished panels and materials so that no damage will be done to the forms, materials, or finishes.

3.5 UNLOAD
Unload, handle and store preformed and pre-finished panels in accordance with the **Bondor®** stated requirements. Use only polystyrene or other soft packing when stacking panels.

3.6 DO NOT DELIVER
Do not deliver to site any panels or elements which cannot be immediately unloaded into suitable conditions of storage.

3.7 PROTECTION
Avoid distortion of panels or elements during transit, handling and storage. Prevent pre-finished surfaces from rubbing together. Prevent contact with mud, plaster and cement, or with dissimilar metals.

3.8 DO NOT USE
Do not use adhesive tape, film, papers, or sprayed protective coatings, or masking tape, which might become bonded after exposure to sun or weather. Remove any temporary protection after installation. Remove any protective coating residues immediately.

3.9 RAW EDGES
Seal cut edges of panel skins using a proprietary brush on lacquer, edge protector, within 500 metres of the coastline.

3.10 GALVANIC CORROSION
Avoid run-off from any copper or brass systems, or unpainted lead flashings. Electrically isolate any large areas of stainless steel from the panel surface. Where dissimilar materials might be in contact, provide a separation barrier.

Assembly

3.11 FABRICATION
Do not start fabrication until shop drawings and erection drawings have been reviewed and material samples approved.

3.12 FACTORY PRODUCTION
Do not start factory production before shop drawings have been reviewed, prototypes have been constructed and test results show compliance with the required quality standards.

3.13 FABRICATE
Fabricate panels and elements in the workshop wherever possible, ready for assembly and erection on the building site.

3.14 CUTTING OF PANELS
Complete all cutting using a purpose-designed cutter to produce a slight rounding of panel edges or use a WC saw blade for profiled face. Do not use abrasive discs.

Application

3.15 INSTALL PANELS
Install panels in accordance with the drawings, stated design parameters, reviewed and approved shop drawings, approved prototypes and installation details. Co-ordinate with work of other sections. Consult and coordinate as necessary with installers of adjoining work, including door installations. Installation of the panel system to comply with NZBC E2/AS1.

3.16 PANEL JOINT
Bondor® SLIPJOINT® provides male/female joints to allow rapid and accurate panel installation. Apply neutral cure sealant to all roof panel joints < 6° to **BONDOR®** construction details.

3.17 SEALING
Do not use metal implements for applying or tooling sealant. Extrude sealant into the join t, ensuring that all air is excluded. Tool the surface and remove any excess. All sealant j oints to finish flush or slightly concave.

3.18 PENETRATIONS
Form penetrations to **BONDOR®** details. Use neoprene, silicone rubber, EPDM, aluminiu m or soft zinc to form flashing around penetration.

Completion

3.19 PROTECTION
Protect all surfaces and finishes from damage as long as practicable, including the retenti on of all or any protective coatings provided by the panel manufacturer. Remove protecti ve coatings, using only the methods required by the panel manufacturer.

3.20 CLEAN
Clean panel surfaces with soft, clean cloths and clean water and in accordance with the p anel manufacturer's stated requirements. Finish with a clean squeegee. Do not use abra sive or alkaline materials, other than a mild abrasive cream used with a soft cloth to remo ve minor surface marking.

Remove all drilling swarf, rivet mandrels and any other metallic debris from the roof surfac e daily, using a soft bristle broom and/or hosing down with clean water.

3.21 ON COMPLETION
Trade clean all panel surfaces to remove all marks, dust and dirt to enable a visual inspec tion of all surfaces at completion of the installation and again at contract completion.

4. SELECTIONS
For further details on selections go to www.bondor.co.nz.
Substitutions are not permitted to the following, unless stated otherwise.

4.1 DESIGN REQUIREMENTS

Medium Wind Zone (refer to NZS 3604, table 5.4)

4.2 FIXINGS, WIND

Proprietary self drilling hexagonal head roofing screws with neoprene washers 75mm long with powdercoated finish.
Allow for specific loadings at corners and the periphery of the roof, where localised press ure factors apply.
Fixing pattern to also take into account fixing method and purlin spacings

4.3 EPS INSULATED PANELS - ROOF

Panel type:	**MetricRoofing™**
Panel insulating core:	**Bondor® Polyfoam** EPS insulated panel
Panel thickness:	75mm
External panel skin finish:	0.59mm pre-painted steel
External profile:	**Bondor®** NZ Metric 5 Rib
Internal panel skin finish:	0.59mm pre-painted steel
Internal surface texture:	Smooth
Internal panel coating:	Pre painted Steel
Panel colour exterior:	To be advised
Roof Pitch:	Minimum 3º

4.4 SUPPORT AND JOINTING ANGLES

Wall/ceiling junction internal:	**Bondor®** pre-painted 0.59mm steel or aluminium angle
Wall/ceiling junction external:	**Bondor®** pre-painted 0.59mm steel or aluminium angle

4.5 PANEL TERMINATIONS
BONDOR® pre-painted steel or aluminium angle channel

4.6 FIXINGS
Type: 4.8mm aluminium rivets.

4.7 FLASHINGS - GENERALLY
Profile: Folded to suit
BMT/material: 0.55mm and 0.70mm refer to Details
Coating system: To match roofing - Colorsteel Maxx
Paint colour: To match roofing

4.8 SEALANTS
Type: Neutral cure silicone supplied by **Bondor®**

4.9 VAPOUR SEAL
Type: Mastic sealant supplied by **Bondor®**

4.10 PANEL GAP FILLER
Type: Expanding foam supplied by **Bondor®**

4.11 PANEL END STRIP
Type: Expanding foam supplied by **Bondor®**

4311D DIMOND PROFILED METAL ROOFING

1. GENERAL

This section relates to the supply and fixing of **Dimond** profiled roofing and includes:
- Metal roofing
- Flashings and accessories

1.1 RELATED WORK
Refer to 4161 UNDERLAYS, FOIL AND DPC for underlays, foils and DPC.
Refer to 7411D for DIMOND Rainwater Spouting Systems

1.2 ABBREVIATIONS
The following abbreviations are used throughout this part of the specification:

BMT	Base metal thickness
NZMRM	New Zealand Metal Roofing Manufacturers Inc
MS	Modified silicone

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documen ts are specifically referred to in this section:

NZBC E2/AS1	External Moisture
AS/NZS 1170.2	Structural design actions - Wind actions
AS 1397	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
AS 3566	Self-drilling screws for the building and construction industries
NZS 3604	Timber-framed buildings
ISO 9223	Corrosion of metals and alloys - Corrosivity of atmosphere - Classificat ion determination and estimation
NZMRM CoP	NZ Metal Roof and Wall Cladding - Code of Practice

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.4 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are:
Dimond Roofing and Cladding Systems Manual, (web based Manual with dated update p ages)

Copies of the above literature are available from **Dimond**

Web:	www.dimond.co.nz
Telephone	0800 346 663 (0800 DIMOND)

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER
Provide a material manufacturer/supplier warranty:.

10 years:	for failure of coating adhesion
5 years:	for weatherproofing by material penetration

- Provide this warranty on **Dimond** standard form.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

1.6 WARRANTY - INSTALLER/APPLICATOR
Provide an installer/applicator warranty:

5 years	from the date of completion of the roof

- Provide this warranty on Roofing installers standard form.
- Commence the warranty from the date of practical completion of the contract works.

Include a copy of the **Dimond** maintenance requirements with the warranty.
Refer to the general section 1237 WARRANTIES - INSTALLER/APPLICATOR for additio nal requirements.

Provide one bound copy of all relevant **Dimond** maintenance information on completion o f the roofing work.

Requirements

1.7 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and pr oducts.

1.8 QUALIFICATIONS
Roofers to be Dimond Recommended Installer, or experienced, competent roofers familia r with **Dimond** products. And for Restricted Building Work, shall also be an LBP or super vised by an LBP.
Carry out work with experienced, competent installers familiar with the products being use d and with appropriate qualifications such as the National Certificate in Metal Roofing and Cladding

Performance - Wind

1.9 DESIGN PARAMETERS - NON SPECIFIC DESIGN
Building wind zone:
Medium Wind Zone (refer to NZS 3604, table 5.4)
Refer to Dimond for "Wind Load Span Capacity charts".

1.11 FIXINGS, WIND
Design and use the fixings/fixing pattern appropriate for the wind design parameters. Ref er to **Dimond** Technical Information for load span tables and fixing charts for the selected profile. Allow for specific loadings at corners and the periphery of the roof, where localise d pressure factors apply. Fixing pattern to also take into account fixing method and purlin spacings.

Performance - General

1.12 CO-ORDINATE
Co-ordinate to ensure substrate and preparatory work is complete and other work progra mmed in the order required for access and completion of the roof. Ensure that all necess ary members are positioned so that flashings can be fastened at both edges through the r oof profile or cladding to the primary structure.

1.13 PERFORMANCE
Select installation method of the roof materials and accept responsibility for the weather-ti ght performance of the completed roofing system including penetrations through the roof and junctions with walls and parapets.

2. PRODUCTS

Materials

2.1 PRE-FINISHED HOT-DIPPED ALUMINIUM/ZINC COATED STEEL
Formability steel sheet, G550 for roll forming or G300 for flashings, coated to AS 1397.

Fixings

2.2 FASTENERS GENERALLY
Fixings and fasteners are to be compatible with all materials, the environment and meetin g the requirements of the NZ Building Code. Installation is to be in accordance with E2/A S1 and/or the NZ Metal Roof and Wall Cladding - Code of Practice and Dmond requireme nts.
For fixing patterns refer to **Dimond** Fixing Charts for the selected profile.

2.3 FIXING SCREWS
To AS 3566. Screws appropriate to the roofing material and the supporting structure, as r equired by Dimond and with a minimum Class 4 or 5 durability and not less than the mat erial being fixed. Screw into timber to penetrate by minimum 30mm. Screw fasteners to be head stamped identifying the manufacturer and class. Use Alutite or stainless steel wi th aluminium based sheets. Refer to SELECTIONS.

2.4 RIVETS
Sealed aluminium, minimum diameter 4mm, for use with zinc coated, zinc/aluminium coat ed or aluminium roofing.

Components

2.5 FLASHINGS GENERALLY
To NZBC E2/AS1, 4.0 **Flashings**.
Formable grade 0.55 BMT for galvanized, aluminium/zinc, aluminium/zinc/magnesium - c oated and pre-painted steel, and 0.90 for aluminium (or 0.7mm for small aluminium flashi ngs) to the same standards as the profiled sheets, notched where across profile or provid ed with a soft edge.

2.6 FLASHINGS TO VERGE, RIDGE AND HIP
Supplied by the roofing manufacturer to match or to suit the roofing in the same material as the roof.

2.7 BOOT FLASHINGS
Generally to E2/AS1, 8.4.17 **Roof penetrations**(note; E2/AS1, Figure.54 **Soaker flashing for pipe penetration**, has an error, use as guide only)
EPDM proprietary pipe flashing laid on 45° bias to roofing, with over-flashing (soaker flas hing) if required.
A boot flashing should be positioned so that it dams a roofing pan no more than 50%, if th is cannot be avoided use an over-flashing back to the ridge and fix the boot flashing to th at.

Accessories

2.9 WIRE NETTING AND SAFETY MESH
Refer to 4161 UNDERLAYS, FOIL AND DPC.

2.10 UNDERLAY AND REFLECTIVE FOIL
Refer to 4161 UNDERLAYS, FOIL AND DPC

2.11 SEALANT
Neutral curing MS sealant or polymer sealant as required by the roofing manufacturer an d used as directed.

2.12 CLOSURE STRIPS
Non-bituminous compressible, profiled foam strips to fit the sheet profile.

2.13 LAP SEALING TAPE
Closed cell self adhesive nitrile tape.

3. EXECUTION

Conditions

3.1 INSPECTION
Inspect the roof framing and supporting structure to ensure that it is complete and fully br aced ready for roofing and free from any misalignments or protrusions that could damage the roofing.

3.2 FRAMING TIMBER MOISTURE
When continuous metal cladding etc. Runs along a long continuous timber member and i s directly fixed to it, the timbers equilibrium moisture content (EMC) to be 18% or less. Fo r flashings in this situation (sometimes called transverse flashings) the framing EMC to be maximum 16%, and preferably as low as 12%. Transverse flashings can be temporarily t acked in place and final fixing done when moisture content is acceptable.

3.3 STORAGE
Upon delivery, visually inspect all sheets for any damage and accept packs of roofing und amaged on delivery. Reject all damaged material. Store on a level firm base with packs well ventilated and completely protected from weather and damage. Do not allow moistur e to build up between sheets. If sheet packs become wet, fillet or cross stack to allow air movement between sheets.

3.4 HANDLING
Avoid distortion and contact with damaging substances, including cement. Do not drag s heets across each other and other materials. Protect edges and surface finishes from da mage. Use soft, flat sole shoes when fixing and for all other work on the roof. Walk along the purlin line whenever possible.

3.5 SEPARATION
Isolate dissimilar materials in close proximity as necessary by painting the surfaces or fitti ng separator strips of compatible or inert materials. Place isolators between metals and tr eated timber, cement based materials, and mixing aluminium sheet and steel mesh. Do n ot use unpainted lead sheet or copper in contact with or allow water run-off onto galvaniz ed or aluminium/zinc coated steel.

Application

3.6 FIX INSULATION
Refer to Thermal Insulation sections.

3.7 SET-OUT
Carefully set out with consideration of the position of side laps to take account of the prev ailing wind and line of sight. Ensure all sheets are square and oversailing the gutter true t o line. Check during fixing to eliminate creep or spread and string lines along purlin centr es to keep fastenings in line.

3.8 END LAPS
End laps should be avoided, except where specifically detailed.

3.9 THERMAL MOVEMENT
For sheet lengths more than 18 metres, make provision for thermal expansion where requ ired

3.10 FIXING GENERALLY
Install and fix in accordance with the Dimond required fixing patterns and details for each area of the building roofing. Use only screws as required by the roofing manufacturer. P aint colour matched fixings and accessories before installation.

3.11 MARKING AND CUTTING
Use ink pen, chalk line, Chinagraph pencils or coloured pencil for marking roof sheets pri or to cutting. Do not use lead pencil for marking Zincalume®, ZAM®, Colorsteel® and Colo rcote®. Cut by shear only, using nibblers or hand snips. Remove all cutting and drilling d ebris from the roof.

3.12 FIX SHEETS
Fix sheets in place using the fastening system required by Dimond for specified profiles, making due allowance for dynamic local wind pressures on the building and thermal mov ement in the sheet.

3.13 STOP ENDS AND DOWNTURNS
Form stop-ends at the upper end of sheets. Form downturns at the gutter line where the r oof pitch is less than 8 degrees. Form using the required tools.

3.14 FLASHINGS
Flash roof to parapets, walls and penetrations to detail. Flashings to be installed on timbe r framing with moisture content of less than 18%. Where no detail is provided flash to NZ MRM CoP NZ metal roof and wall cladding Code of Practice recommendations and Dimo nd requirements. Cut accurately and fix using sealant and rivets to detail and to Dimond r equirements to form a weatherproof cover. For highly visible flashings, plan joints/junctio n to take account of the aesthetic requirements.

3.15 SEPARATION
Separate metal sheeting from CCA treated timber with an inert isolation material such as f lashing tape, underlayment mat or similar. Contact Dimond for other options.

3.16 USE OF SEALANTS
Select and use sealants only as recommended by Dimond. Remove any swarf and clean down, apply sealant in two narrow beads transversely across flashing intersections, close to the two edges. Avoid exposing sealant on outside surfaces.

3.17 FLASHING PENETRATIONS
Flash all penetrations through the roof. Fit pipe flashings with a proprietary collar flashing , with other penetrations flashed as detailed and to provide a weathertight installation. En sure that flashings are set to avoid any ponding of water.

Completion

3.18 REPLACE
Replace damaged or marked elements.

3.19 LEAVE
Leave this work complete with all necessary flashings, undercloaks, valleys, ridges and hi ps all properly installed as the work proceeds so the finished roof is completely weathertig ht.

3.20 REMOVE
Remove trade rubbish and unused materials from the roof and surrounds daily during the work. Sweep down at the end of each day, and clean out spouting, gutters and rainwater pipes on completion of the roof. Remove debris, unused materials and elements from the site.

4. SELECTIONS

For further details on selections go to www.dimond.co.nz.
Substitutions are not permitted to the following, unless stated otherwise.

Coating system

4.2 COATING SYSTEM - EXPOSURE ZONE D (CAT 4)
Project Exposure Zone D to NZS 3604, C 4 to ISO 9223.

Profile/location:	Dimond Veedek to main roof of building
Base material:	0.55mm
Coating system:	Colorsteel Maxx
Paint colour:	To be advised

Roofing

4.4 DIMOND VEEDEK ROOFING

BMT/material	0.55mm Colorsteel "Maxx"
Purlin material:	DHS Purlins
Fixing:	Hex head screw fixings
Fixing pattern:	Refer to Dimond Veedek literature for details

Accessories

4.5 FLASHINGS - GENERALLY

Profile:	Folded to suit
BMT/material:	0.55mm and 0.70mm refer to Details
Coating system:	To match roofing - Colorsteel Maxx
Paint colour:	To match roofing

4.6 FLASHINGS - INACCESSIBLE
Material/thickness: 0.55mm Colorsteel Maxx

4.7 CLOSURE STRIPS
Brand: Ecofoam

4521AC APL COMMERCIAL ALUMINIUM WINDOWS AND DOORS

1. GENERAL

This section relates to the fabrication, supply and installation by either an **Altherm, First** or **Vantage** manufacturer of:
- Metro Series aluminium windows and doors
- APL Architectural Series aluminium windows and doors
- 40mm window systems
- Shopfront system
- Curtain Wall Stick Systems
- Flushglaze
- Structural Glaze
- Hardware and furniture
- Flashings and sealants

1.1 RELATED WORK
Refer to appropriate glazing sections for glass types

1.2 ABBREVIATIONS AND TERMS

SLS	Serviceability limit state
ULS	Ultimate limit state
WANZ	Windows Association of New Zealand
PQAS	Powder Coating Quality Assurance System

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documen ts are specifically referred to in this section:

NZBC E2/AS1	External moisture
NZBC F4/AS1	Safety from falling
NZBC H1/VM1	Energy efficiency
NZBC H1/AS1	Energy efficiency
AS/NZS 1580.108.1	Methods of test for paints and related materials - Determi nation of dry film thickness on metallic substrates - Non destructive m ethods
AS/NZS 1170.2	Structural design actions - Wind loads
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
AS/NZS 1734	Aluminium and aluminium alloys - Flat sheet, coiled sheet and plate
AS/NZS 1866	Aluminium and aluminium alloys - Extruded rod, bar, solid and hollow shapes
AAMA 2604.05	Performance requirements and test procedures for high performance organic coatings on aluminium extrusions and panels
NZS 3604	Timber-framed buildings
AS 3715	Metal finishing - Thermoset powder coatings for architectural applicati ons
BS 3900	Methods of tests for paints, Part C5: Determination of film thickness
NZS 4211	Performance of windows
NZS 4223.3	Glazing in buildings - Human impact safety requirements
AS/NZS 4680	Hot-dip galvanized (zinc) coatings on fabricated ferrous articles
WANZ Installation Guide	The WANZ Guide to Window Installation as described in E2/AS1 Amendment 5
WANZ PQAS	Powder Coating Quality Assurance System
WANZ SFA 3503-03	Anodic Oxide coatings on wrought aluminium for external architectural application (2005)
BRANZ BU 337	Protecting Window Glass from Surface Damage
AAMA 2604	Voluntary specification, performance requirements and test procedure s for high performance organic coatings on aluminium extrusions and panels

AAMA 2605 Voluntary specification, performance requirements and test procedure s for superior performing organic coatings on aluminium extrusions an d panels

US Federal Specification
TT-S-001543A Sealing compound, silicone rubber base (for caulking, sealing and gla zing in buildings and other structures)
TT-S-00230C Sealing compound, elastomeric type, single component (for caulking, sealing and glazing in buildings and other structures)

1.4 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are contained wit hin:
Altherm Specifier's Guide
First Specifier's Guide
Vantage Specifier's Guide

Copies of the above literature are available from:
Web: www.altherm.co.nz
www.firstwindows.co.nz
www.vantagejoinery.com
www.aplnz.co.nz
Email: specifiersguide@aplnz.co.nz
Telephone: 09 309 3251
Facsimile: 09 309 3298

Warranties

1.5 WARRANTY - MANUFACTURER/FABRICATOR
Provide a material manufacturer/fabricator warranty:
5 years: For fabrication

Refer to the general section for the required form of 1237WA WARRANTY AGREEMENT and details of when completed warranty must be submitted.

1.6 WARRANTY - INSTALLER
Provide an installer/applicator warranty:
2 years: For installation

- Provide this warranty in the installer/applicator standard form.

Refer to the general section 1237 WARRANTIES for additional requirements.

Requirements

1.8 NO SUBSTITUTIONS
Substitutions are not permitted to any specified **APL** aluminium system, or associated co mponents and products.

1.9 QUALIFICATIONS
Work to be carried out by tradesmen experienced, competent and familiar with the materi als and techniques specified.

1.10 COMPLIANCE
Windows and doors to be manufactured and installed to NZBC E2/AS1.

1.11 SHOP DRAWINGS AND INSTALLATION DETAILS
Shop drawings to show the general arrangement of the aluminium joinery including, but n ot be limited to:
Construction details (minimum scale 1:5) showing the interface between joinery elements and the building structure including: -

- Jointing details and method of fixing between individual elements and between this installation and adjacent work
- Interaction between claddings and linings
- Flashing details
- Sealants and air seals
- Non standard fixing details including bracketing

And where required the following: -
- Design calculations
- Producer Statement in the form PS1 Producer Statement Design
- Rebate sizes
- Dimensions of all typical elements and of any special sizes and shapes
- Provision for the exclusion and/or drainage of moisture
- Provision for adjustment of fixings to ensure true alignment of windows and doors
- Sealant types and full size sections of all sealants and backing rods
- Provision for thermal movement
- Provision for seismic movement and movement under wind loads
- Sequence of installation
- Glazing specification and details

Where requested provide the following additional information
- Information of Professional Indemnity Insurance held by the person providing the calculations and shop drawings

Complete shop drawing review before commencing fabrication.

1.12 CERTIFICATION
Provide evidence of a certificate by a laboratory accredited by International Accreditation of New Zealand that the windows and doors offered comply with the requirements of NZS 4211.

Performance

1.13 PERFORMANCE - WINDOWS AND DOORS
To NZS 4211, including:
- deflection, opening sashes, air infiltration, water penetration, ultimate strength, torsional strength of sashes, marking.

Refer to SELECTIONS.

1.14 STRUCTURAL/WEATHER-TIGHTNESS
The structural and weather-tight performance of the completed joinery, the glazing and infill panels is the responsibility of the window fabricator.

Performance - Wind (design by contractor)

1.15 DESIGN PARAMETERS - NON SPECIFIC DESIGN
Design the installation to the wind zone parameters of NZS 3604, table 5.1.
Refer to SELECTIONS for wind zone.

Finishes

1.16 CERTIFY COATINGS - POWDER COATING
Certify on request, compliance with this specification and support with control and sampling records. Test for film thickness to BS 3900, part C5, method No. 4, using method (b) or to AS/NZ 1580.108.1 for certifying thickness and method (a) where any dispute arises as to the thickness provided.
The coating should be applied by an applicator who can certify that the coating has been applied in accordance with the specification.

2. PRODUCTS

2.1 WINDOWS
Refer to SELECTIONS for type and finish.

2.2 DOORS
Refer to SELECTIONS for type and finish.

2.3 SHOPFRONT AND MAGNUM DOORS
Refer to SELECTIONS for type and finish.

2.4 FLUSHGLAZE CURTAIN WALL
Refer to SELECTIONS for type and finish.

2.5 STRUCTURALLY GLAZED CURTAIN WALL
Refer to SELECTIONS for type and finish.

Materials

2.6 ALUMINIUM EXTRUSIONS
Alloy designation to comply with AS/NZS 1866. Branded and extruded for anodising or p owder coating.

2.7 ALUMINIUM SHEET AND STRIP
Complying with AS/NZS 1734 of suitable thickness. Rolled for anodising or powder coatin g.
Alloy designation: 5251 - H16 or 5005 - H16

2.8 STAINLESS STEEL SHEET AND STRIP
Type: 316 austenitic steel
Finish grade: 2B (satin lustre)

2.9 GLASS
Refer to the glazing section for glass types and installation.

Reveals

2.10 REVEALS - TIMBER PAINTED
Timber reveals for paint finish with all sides primed grooved for wall linings or flush finishe d for architraves.

Accessories

2.11 FLASHINGS GENERALLY
To NZBC E2/AS1, 9.1.10 **Windows and Doors**. Material, grade and colour of head flash ings to match the window frames. Ensure that materials used for head, jamb and sill flas hings are compatible with the window frame materials and fixings and cladding materials.

Components for installation - direct fix systems

2.12 SILL PAN FLASHING
To NZBC E2/AS1, 9.1.10.5 **Window and Door Sills**. Flashing for direct fix claddings to c ollect and drain water that may penetrate through the window or door unit. Size to extend from the inner most point of the aluminium frame out over the external face of the claddin g.

2.13 SUPPORT ANGLE
A Standard aluminium support angle for use below the sill pan for deeper claddings to tra nsfer the weight of the window back to the frame. Size to suit cladding thickness.

Components

2.14 GLAZING GASKETS
Thermoplastic rubber. Do not stretch glazing gaskets during installation. Measure and c ut gaskets 5-10% over length before installation.

2.15 HARDWARE AND FURNITURE
Hinges, stays, catches, fasteners, latches, locks and furniture as offered by the window a nd door manufacturer. Refer to SELECTIONS for type and finish. Key alike all lockable window hardware able to be keyed alike.

2.16 SAFETY STAYS
Stainless steel non releasable restrictors to limit window opening to NZBC F4/AS1, Table 2, Acceptable opening sizes for barriers.

2.17 FIXING BRACKETS
Designed by manufacturer to specific design.

Sealants

2.18 STRUCTURAL SEALANT
Silicone chemically curing sealant specifically formulated and tested or approved equivale nt with not less than a ± 40% movement factor complying with US Federal Specification T T-S-001543A.

2.19 WEATHERING/INSTALLATION SEALANT
Building sealant used in accordance with manufacturer's instructions for weather sealing aluminium frames to the cladding, complying with US Federal Specification TT S 0011534 A, or a one-part polyurethane moisture curing, elastic joint sealant of medium modulus (± 25% movement) to US Federal Specification TT S 00230C.

Finishes

2.20 DURALLOY POWDER COATED ALUMINIUM
Polyester powder organic coating in accordance with WANZ PQAS and AS 3715.

3. EXECUTION

Conditions - generally

3.1 DO NOT DELIVER
Do not deliver to site any elements which cannot be unloaded immediately into suitable c onditions of storage.

3.2 UNLOAD WINDOW JOINERY
Unload, handle and store elements in accordance with the window manufacturer's require ments.

3.3 AVOID DISTORTION
Avoid distortion of elements during transit, storage and handling.

3.4 PREVENT DAMAGE
Store windows and doors on site in a clean and dry environment in such a manner as to p revent damage to prefinished surfaces. Stack the units in a vertical position resting on th eir sills, with layers interleaved between to prevent rubbing. Keep paper and cardboard w rappings dry.

3.5 PROPRIETARY ELEMENTS
Fix in accordance with the window manufacturer's requirements.

3.6 PROTECTIVE COVERINGS
Retain protective coverings and coatings to BRANZ BU 337 and keep in place during the fixing process. Provide protective coverings and coatings where required to prevent mark ing of surfaces visible in the completed work and to protect aluminium joinery from followi ng trades. Remove protection on completion.

3.7 ADDITIONAL PROTECTION
Supply and fix additional protection as necessary to prevent marking of surfaces which wil l be visible on completed work.

Conditions - fixings and fastenings

3.8 SUPPLY OF FIXINGS
Use only fixings and fastenings recommended by the manufacturer of the component bei ng fixed and to comply with the ULS wind pressure stated in SELECTIONS. Ensure fixin gs and fastenings exposed to the weather are of aluminium, or Type 316 stainless steel o r if not exposed to the weather may they be hot-dip galvanized steel with a coating weight of 610 g/m² complying with AS/NZS 4680.

3.9 INSTALLATION FIXING
To NZBC E2/AS1, 9.1.10.8, **Attachments for windows and doors**. Fix windows/doors t hrough reveal to frame with a pair of 75 x 3.15mm minimum galvanised jolt head nails or a pair of 8 gauge x 65mm minimum stainless steel screws. Fix at a maximum of 450 cent res along all reveals and a maximum of 150mm from reveal ends. Ensure fixings do not penetrate metal flashings.
Install packers between reveals and framing at fixing points, except at the head.

Assembly

3.10 FABRICATION
Fabricate frames as detailed on shop drawings. Install fixing brackets, glazing, hinges, st ays and running gear as scheduled. Provide temporary bracing and protection. Tempora rily secure all opening elements for transportation.

3.11 TIMBER / PVC REVEALS
Before fixing to aluminium frames, ensure that timber reveals which are being painted hav e been primed on all surfaces. Securely fix reveals through aluminium fin.

3.12 HARDWARE GENERALLY
Factory fit all required and scheduled hardware. Account for all keys and deliver separate ly to the site manager.

3.13 SAFETY STAYS
Factory fit safety stays to all windows scheduled for safety stays and to all windows wher e safety stays are required to comply with NZBC F4/AS1 4.0, Opening windows.

Installation - windows and doors

3.14 SUPPLY OF FIXINGS
Use only fixings and fastenings recommended by the manufacturer of the component bei ng fixed and to comply with the ULS wind pressure stated in SELECTIONS.

3.15 EXPOSED FIXINGS AND FASTENINGS
Ensure fixings and fastenings exposed to the weather are of aluminium, or Type 304 stain less steel.

3.16 PROTECTED FIXINGS AND FASTENINGS
Fixings and fastenings not exposed to the weather may be hot-dip galvanized steel with a coating weight of 610 g/m² complying with AS/NZS 4680.

3.17 CORROSION PROTECTION
Before fixing, apply suitable barriers of bituminous coatings, stops or underlays between dissimilar metals in contact, or between aluminium in contact with concrete.

3.18 CONFIRM PREPARATION OF EXTERIOR WALL OPENINGS
Confirm that exterior wall openings have been prepared ready for the installation of all win dow and door frames. Do not proceed with the window and door installation until required preparatory work has been completed.

Required preparatory work includes the following:
- wall cladding underlay/building wrap to openings finished and dressed off ready for the i nstallation of window and door frames to NZBC E2/AS1:9.1.5 **Wall underlays to wall o penings.**
- Full height 20mm jamb battens to NZBC E2/AS1 figure 72A (direct fix only)
- claddings neatly finished off to all sides of openings
- installation of flashings (those which are required to be installed prior to frames).
- application of waterproof sealer to all door and window sills in concrete floor or concrete sill situations. To door sills only, apply a suitable membrane over the sealer.
- all in accordance with the shop drawings, where applicable.

3.19 INSTALLATION
Fix to comply with the reviewed shop drawings and installation details including flashings and bedding compounds, pointing sealants and weathering sealants.

3.20 INSTALLATION DIRECT FIX
Install to window manufacturers details and drawings including sill pans to window and do or units.

3.21 INSTALL FLASHINGS
Install flashings to heads, jambs and sills of frames as supplied and required by the windo w manufacturer and as detailed on the drawings. Finish head flashings to match window f inish.

Place all flashings so that the head flashing weathers the jamb flashings, which in turn we athers over the upstand of the sill flashing. Ensure that sill flashings drain to the outside ai r.

Except where window/door frames are recessed, ensure that head flashings over-sail unit by 20mm plus any jamb scriber width at each end.

3.22 COMPLETE AIR SEAL
To NZBC E2/AS1:9.1.6 **Air seals**. Form an air-tight seal by means of proprietary expandi ng foam or sealants used with PEF backing rods, applied between the window / door reve al and structural framing to a depth of 10 - 20mm, to provide a continuous air tight seal to the perimeter of the window or door.

3.23 FIX HARDWARE
Fix all sash and door hardware and furniture as scheduled.

Application - jointing and sealing

3.24 SEAL FRAMES ON SITE
Seal frames to each other and to adjoining structure and finishes, to the requirements of t he window and sealant manufacturer and to make the installation weathertight. In very hi gh and extra high or greater wind zones, seal between the window head and the head fla shing. Do not seal the junction between the sill member and the cladding or sill flashing which must remain open.

3.25 PREPARE JOINTS
Ensure joints are dry. Remove loose material, dust and grease. Prepare joints in accord ance with the sealant manufacturer's requirements, using required solvents and primers where necessary. Mask adjoining surfaces which would be difficult to clean if smeared wi th sealant.

3.26 BACK UP
When using back-up materials do not reduce depth of joint for sealant to less than the mi nimum required by the manufacturer of the sealant. Insert polyethylene rod or tape back-up behind joints being pointed with sealant.

3.27 SEALANT FINISH
Tool sealant to form a smooth fillet with a profile and dimensions required by the sealant manufacturer. Remove excess sealant from adjoining surfaces, using the cleaning materi als nominated by the sealant manufacturer and leave clean.

Completion - cleaning

3.28 REMOVE TRADE DEBRIS
Remove trade debris by appropriate means on a floor by floor basis as each floor is comp leted and again before any work is covered up by others. Arrange for general removal.

3.29 TRADE CLEAN
Trade clean window frames, operable windows and doors, glass and other related surfac es inside and out at the time of installation to remove marks, dust and dirt, to enable a vis ual inspection of all surfaces.

Completion

3.30 PROTECTIVE COVERINGS
Retain protective coverings and coatings and keep in place during the fixing process. Pro vide protective coverings and coatings where required to prevent marking of surfaces visi ble in the completed work and to protect aluminium joinery from following trades. Remov e protection on completion.

3.31 REPLACE
Replace damaged, cracked or marked elements.

3.32 PROTECTION
Protect finishes against damage from adjacent and following work.

3.33 IN - SITU TOUCH-UP TO POWDER COATED ALUMINIUM
In situ touch-up of polyester or PVDF Paint Finish coated aluminium is only permitted to minor surface scratching. Otherwise replace all damaged material.

3.34 SAFETY
Indicate the presence of transparent glasses for the remainder of the contract period, with whiting, tape or signs compatible with the glass type. Indicators other than whiting must n ot be applied to the glass surface. Masking tape must not be used for this purpose.

3.35 MANIFESTATIONS
Apply manifestations to comply with NZS 4223.3, 303.1 Manifestations.

4. SELECTIONS
Substitutions are not permitted to the following selections.

4.2 SUPPLY AND INSTALLATION
Supply and installation of the specified **APL** aluminium joinery system by one of the follow ing options.
Supply only: By fabricator
Supply and installation: By fabricator
Installation only: By main contractor

Performance

4.3 THERMAL PERFORMANCE
R-value: R.0.26 (as determined from NZBC H1/VM1 or H1/AS1)

4.4 AIR INFILTRATION
For NZS 4211, table 3 **Air infiltration**.
Non-air conditioned zones: ~
Air conditioned zones: ~

Performance - Wind (design by contractor)

4.5 DESIGN PARAMETERS - NON SPECIFIC DESIGN
Building wind zone ~ Wind Zone A

Finishes

4.6 DURALLOY - POWDER COATING FINISH
Type: Polyester organic powder coating

Thickness: Average of 80 microns with a minimum of 50 microns
Colour: To Be Advised

Glazing

4.11 GLASS
Type/thickness: Refer to appropriate glazing sections for type and thickness.

Hardware

4.12 WINDOW HARDWARE
Window fastener: Standard

4.14 HARDWARE FINISH
Finish: Powder coat
Colour: Black

4.15 MANIFESTATIONS
Location: Entrance Doors
Type/details: Refer to working drawings

Flashings and Sealant

4.16 FLASHINGS
Material/type: 0.9mm powdercoated aluminium
Pattern: Formed to suit details provided

4.17 WEATHERING SEALANT
Type: 1-part polyurethane moisture curing, elastic joint sealant
Colour: To match aluminium colour

Reveals

4.18 WINDOW REVEALS - TIMBER
Timber species: Pinus Radiata
Grade/treatment: H3.2
Thickness: 19mm
Reveals: Rebated
Finish: Dressed

Window and door system - APL ARCHITECTURAL SERIES

4.25 40MM WINDOW SERIES
Brand: **APL 40mm Window Series**
Type.: Top hung
Window No.: Refer to window schedule
Glazing system: Single Glazing

Curtain wall

4.28 100MM & 135MM FLUSHGLAZE

Brand:	**APL Flush Glaze**
Window No.:	Refer to Window schedule
Frame size:	135mm
Glazing system:	Flushglazed

4571AD ARABIAN AUTOMATIC DOOR SYSTEMS

1. GENERAL

This section relates to the supply and installation of **Self Opening Doors Ltd** automatic d oor equipment.
It includes;
- **Arabian** self opening sliding door operators
- including control function components and accessories

1.1 RELATED WORK
Refer to related door sections for door type and configuration.
Refer to glazing sections for glazing.
Refer to electrical sections for electrical requirements.

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

EMC	Electromagnetic compliant
UPS	Uninterruptable power supply

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following docume nts are specifically referred to in this section:

NZS 4223.3	Glazing in buildings - Human impact safety requirements
NZS 4239	Automatic sliding door assemblies

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents relating to this part of the work:
Customer Information Pack - Arabian Self opening doors

Manufacturer/supplier contact details

Company:	Self Opening Doors Ltd
Web:	www.arabian.co.nz
Email:	arabian@arabian.co.nz
Telephone:	0800 226 342 / 09 270 2630

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER
Provide a material manufacturer/supplier warranty:

2 years:	For Arabian Automatic Door Equipment

- Provide this warranty on the Arabian Automatic Door Warranty standard form.
- Commence the warranty from the date of commissioning of the unit/s

Refer to the general section 1237 WARRANTIES for additional requirements. Refer to th e Arabian Automatic Door Warranty.

Requirements

1.6 QUALIFICATIONS
Installers to be experienced, competent trades people familiar with the materials and tech niques specified.

1.7 NO SUBSTITUTIONS
Substitutions are not permitted to any of the specified systems, components and associat ed products listed in this section.

1.8 OPERATION AND MAINTENANCE MANUALS
Refer to the general section 1239 OPERATION & MAINTENANCE for the requirements f or submission and review of operation and maintenance manuals.

Provide the following operation and maintenance manual(s):
- For all automatic doors to the building owner or agent.

Include the following in the operation and maintenance manual(s):
- Service history and date of inspection to Manufacturer's instructions; at least annually
- Operation of all ancillary control facilities
- A check of power supply including battery back-up supply
- All service attendance and date
- Emergency exit device functions

Compliance information

1.9 INFORMATION REQUIRED FOR CODE COMPLIANCE
Provide the following compliance documentation:
- Manufacturer's, importers or distributors warranty
- Installer's / applicator's warranty
- Other information required by the BCA in the Building Consent Approval documents.

2. PRODUCTS

Automatic door operators

2.1 STANDARD SLIDING DOOR OPERATOR
Automatic door operator, Ultraslide SD, complying with NZS 4239, EMC requirements an d NZBC, including a precision purpose-made motor gearbox combined with an electronic controller.

Control functions

2.2 CONTROLS
The door functions to be controlled by a selectable five position membrane switch:

Auto:	For normal use. The door operates in fully automatic mode for two-wa y traffic.
Half, ¾ open:	For adverse climate conditions, door operates as in auto mode but onl y opens halfway.
Open:	The door will remain fully open.
Lock:	The door closes and the motor lock engages. It ignores all inputs exc ept emergency exit, security and fire open signals.
Exit:	The door closes and the motor lock engages. The door will open for tr affic leaving the building only.

2.3 FUNCTIONS
All of the following functions to be independently adjustable:
- Opening speed
- Closing speed
- Dwell time
- Braking force

2.4 FAILSAFE AND BATTERY
A fully monitored UPS system monitoring both battery and door operation. In case of pow er failure in auto mode, the battery will provide 200 complete open and close cycles. Wh en the battery is low the doors will failsafe open. In case of power failure in lock mode ret ain full locking for 8 hours.

2.5 SECURITY INTERFACE SPECIFICATION
The operator to be fitted with an IO Panel to allow easy integration with any building man agement systems.

The interface to have clean contact relay outputs for the following functions and fault diag nosis for:
- Door closed
- Safety light cells blocked
- Door locked
- Door in lock mode
- Door in auto mode
- Door forced
- Mains power failure
- Door in controlled mode
- Battery low
- Door in hold open mode

The interface to have inputs for the following control functions:
- Door to auto mode
- Open door (latching this holds door open)
- Fire Open
- Door to exit mode
- Door to lock mode
- Fire Close

Accessories

2.6 MICROWAVE SENSOR
Movement sensor mounted above door. Maximum mounting height 3 metres.

2.8 DUAL SAFETY BEAMS
Active infrared beams for doorway protection. Typically mounted at 60mm and 600mm ab ove finished floor. Immunity level 75000 lux to sunlight.

2.9 KEY ENTRY SWITCH
To enable entry to the building when the door is equipped with electric locking.

2.13 EMERGENCY EGRESS BUTTON
Backlit egress button for after hours and emergency escape from the building when the o perator is equipped with electric locking.

2.15 KEYPAD
Digital keypad fitted to operators with electric locking to create a standalone security entry system or integrated into a building management system.

2.16 ELECTRIC LOCKING - MOTOR LOCK
Electric motor lock factory fitted to the drive shaft of the motor to eliminate alignment probl ems.

2.17 ELECTRIC LOCKING - MAGNETIC SHEAR CLAMP
12V dc magnet.

2.18 SECURITY INTERFACE
Comprehensive security interface to allow connection of the door to the building manage ment system complete with inputs and outputs to suit requirements.

2.19 GLASS
Refer to glazing sections for glass type and thickness. To NZS 4223.3 Glazing in building s - Human impact safety requirements.

Components

2.20 FLASHINGS GENERALLY
Refer to the relevant door sections for head, jamb and sill flashings.

2.21 METAL FASTENINGS
Stainless steel or non-corrodible metal.

3. EXECUTION

Conditions

3.1 DO NOT DELIVER
Do not deliver any elements which cannot be unloaded immediately into suitable storage conditions.

3.2 HANDLE
Handle, unload and store elements without distortion and avoiding pre-finished surfaces r ubbing together, and contact with mud, moisture and other damaging materials.

3.3 PROTECT
Protect all elements against damage.

3.4 FABRICATION AND FINAL INSTALLATION
Ensure that all fabrication and installation is in accordance with the door system requirem ents and to Self Opening Doors Ltd requirements.

3.5 CONNECTION TO SECURITY SYSTEM
Fix in accordance with the door manufacturer's requirements.

3.6 CONNECTION TO FIRE ALARM SYSTEM
Fix in accordance with the door manufacturer's requirements.

Installation

3.7 PROPRIETARY ELEMENTS
Ensure proprietary elements are fixed in accordance with the door manufacturer's require ments.

3.8 COMMISSIONING
Check and adjust operation of all doors, hardware and furniture under all operation mode s.

Completion

3.9 DEFECTIVE OR DAMAGED WORK
Repair damaged or marked elements. Replace damaged or marked elements where rep air is not possible or will not be acceptable. Adjust operation of equipment and moving p arts not working correctly. Leave work to the standard required for following procedures.

4. SELECTIONS

For further details on selections go to www.arabian.co.nz
Substitutions are not permitted to the following, unless stated otherwise.

Automatic door

4.1 ULTRASLIDE STANDARD SLIDING DOOR

Location:	Main Entrance
Door type:	Sliding frameless Glass
Brand/operator:	**Arabian Ultraslide SD**
Opening size:	Refer to Window/Door Schedule
Number of leaves:	2
Configuration:	Refer to DRAWINGS
Actuator:	Sensor
Locking Device:	Motor lock
Accessories:	Key entry switch

4611 GLAZING EXTERIOR

1. GENERAL

This section relates to the supply and fixing of glass products for external joinery in compl ex residential and commercial buildings, including:
- window and doors
- curtain wall systems

1.1 SCOPE OF WORK
Refer to Working drawings for extent of glazing

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

PVB	Polyvinyl Butyral
CIP	Cast in place

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following docume nts are specifically referred to in this section:

NZBC B1/AS1	Structure
NZBC F2/AS1	Hazardous building materials
NZBC F4/AS1	Safety from falling
NZBC H1/AS1	Energy Efficiency
NZS 3604	Timber-framed buildings
NZS 4211	Performance of windows
NZS 4218	Thermal insulation - Housing and Small Buildings
NZS 4223.1	Glazing in buildings - Glass selection and glazing
NZS 4223.3	Glazing in buildings - Human impact safety requirements
NZS 4223.4	Glazing in buildings - Wind, dead, snow and live action
NZS 4223.Supp1	Glazing in buildings - Supplement 1 to NZS 4223.1:2008 and NZS 4223.4:2008
NZS 4243.1	Energy Efficiency - Large Buildings - Building thermal envelope
AS/NZS 2208	Safety glazing materials in buildings
AS/NZS 4666	Insulating glass units
BRANZ BU 337	Protecting window glass from damage

Warranties

1.5 MANUFACTURERS WARRANTY
Warrant glass under normal environmental and use conditions against failure of materials .

10 years:	for laminated glass
10 years:	for toughened glass

Refer to the general section for the required form of 1237WA WARRANTY AGREEMENT and details of when completed warranty must be submitted.

Requirements

1.6 SAMPLES
Submit samples of selected glass for review if required.

Performance

1.7 THERMAL STRESS ANALYSIS
For non heat treated glass obtain a thermal stress analysis for spandrel panels, tinted, refl ective and other solar control vision glass including IGU's for review before placing final o rder.

1.8 ENERGY EFFICIENCY
Provide glazing to meet the energy requirements of, NZS 4218 and NZBC H1/AS1 for ho using small buildings, or NZS 4243.1 for large buildings.
Refer to SELECTIONS and schedules for location and type of glazing.

2. PRODUCTS

Materials

2.2 LAMINATED GLASS
Grade A Safety Glass to AS/NZS 2208 with PVB or CIP resin interlayer.

2.3 TOUGHENED GLASS
Grade A Safety Glass to AS/NZS 2208.

Components, general

2.5 JOINTING, PUTTY AND SEALING MATERIALS
Ensure jointing, putty and sealing materials are compatible with glass substrates. Confir m compatibility with laminated glass, IGU's and coatings.

Components, aluminium glazing

2.6 GLAZING TAPE AND GASKETS
Single/double sided pressure sensitive self-adhesive low/medium/high density foam tapes /butyl tapes selected to suit the glazing detail to window manufacturers' requirements.

2.7 SETTING BLOCKS
Santoprene/Neoprene, 80-90 Shore A hardness, set at quarter points or to detail, to supp ort the weight of glass panes.

3. EXECUTION

Conditions

3.1 GENERAL REQUIREMENTS
To NZS 4223.1, NZS 4223.3, NZS 4223.4 and NZBC B1/AS1, 7.0 **Glazing**. All external g lazing to be wind and watertight on completion.

3.2 DELIVERY
Keep glass dry and clean during delivery and bring on to site when ready to glaze directly into place. Comply also with the storage requirements set out in BRANZ BU 337.

3.3 GLASS CONDITION
All glass to have undamaged edges and surfaces.

3.4 GLASS THICKNESS
If not specifically stated in the glazing schedule determine the minimum thickness of glass for each sheet as required by NZS 4223.1, NZS 4223.3, NZS 4223.4, and NZS 4223.4 Su pp 1.
Determine the final glass thickness based on whether wind loading or human impact cons iderations govern.

3.5 REBATE DIMENSIONS
Provide rebates for glazing to the widths and depths necessary for each situation includin g minimum glass edge cover to NZS 4223.1, Section 4 Glazing.

Assembly

3.6 WORKING OF GLASS
All working of glass as required in NZS 4223.1.

3.7 EDGE WORK AND BEVELLING
Edgework other than a clean cut. Refer to SELECTIONS/drawings for type.

3.8 SURFACE TREATMENT
Refer to SELECTIONS/drawings for finish.

3.9 SURFACE CUTTING
Refer to SELECTIONS/drawings for finish.

Application aluminium

3.10 INSTALL GLASS TO ALUMINIUM FRAMES
Install glass to NZS 4223.1.
- Bead glaze to Section 4 Glazing.
- Channel glaze to Section 4 Glazing, and Section 5 for Framed, Unframed, Partly Frame d Glass Assemblies.

3.11 INSTALL SAFETY GLASS
To NZS 4223.3, as modified by NZBC F2/AS1 and NZBC B1/AS1, 7.0 **Glazing**.

Finishing

3.12 SAFETY
Indicate the presence of transparent glass for the remainder of the construction period, wi th whiting, tape or signs compatible with the glass type. Indicators other than whiting mus t not be applied to the glass surface.

3.13 MANIFESTATIONS
To NZS 4223.3, clause 303.1 Manifestation (making glass visible).

Completion

3.14 TRADE CLEAN
Clean off or remove safety indicators at completion of the building.

3.15 REPLACE
Replace damaged, cracked or marked glass.

3.16 LEAVE
Leave work to the standard required by following procedures.

3.17 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS

4.1 WIND ZONE
Building wind zone: Medium (as determined from NZS 3604, NZS 4223 or NZS 4211)
Specific Design Wind Pressure

Glass by type

4.3 PVB LAMINATED GLASS

Location:	Curtain wall and other window
Brand/type:	PVB
Colour:	Clear

Interlayer: 0.38mm Standard
Thickness: Curtain wall TBC by glass manufacturer
Back window TBC by glass manufacturer

4.4 TOUGHENED GLASS
Location: Entrance doors
Thickness: TBC by glass manufacturer

4.5 SCREEN PRINTED TOUGHENED GLASS
Location: At ATM machine

Colour: To be advised
Thickness: TBC by glass manufacturer
Edgework: Square edge

4711A AUTEX GREENSTUF® THERMAL INSULATION

1. GENERAL

This section relates to Autex GreenStuf® polyester fibre insulation installed, laid, hung or f itted as thermal insulation.

1.1 SCOPE OF WORK
Thermal insulation to underside of roofing.
Thermal insuation to timber strapping cavities against precast panels

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:
BIB Building Insulation Blanket

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following docume nts are specifically referred to in this section:

NZBC E2	External moisture
NZBC H1/AS1	Energy efficiency
AS/NZS 3000	Electrical installations
NZS 4218:2004	Energy Efficiency - Small building envelope
NZS 4220	Code of practice for energy conservation in non-residential buildings
NZS 4243.1	Energy Efficiency - Large buildings - Building thermal envelope
NZS 4246	Energy Efficiency - Installing insulation in residential buildings
AS/NZS 4534	Zinc and zinc/aluminium-alloy coatings on steel wire
AS/NZS 60598.2.2	Luminaires- Particular Requirements - Recessed luminaires
AS/NZS 60695.11.5	Fire hazard testing - Test flames - Needle-flame test met hod - Apparatus, conformity test arrangement and guidance
AS/NZS ISO 9001	Quality management systems - requirements

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Autex Insulation documents related to this section are:
Autex Insulation Product Manual, including:

Data sheet	GreenStuf® Thermal Insulation - Pad Form
Data sheet	GreenStuf® Thermal Insulation - Roll Form
Data sheet	GreenStuf® Underfloor
Data sheet	GreenStuf® Building Insulation Blanket
Data sheet	GreenStuf® Masonry Wall Blanket
Data Sheet	GreenStuf® Skillion Roof Blanket

Installation Instructions - GreenStuf® Thermal Insulation
Installation Instructions - GreenStuf® Underfloor Insulation
Autex Insulation Acoustic Design Guide
Autex Insulation Residential Design Guide
Autex Insulation Warranty Certificate
BRANZ Appraisal 380 - Autex Greenstuf® Polyester Thermal Insulation
BRANZ Appraisal 734 GreenStuf® Underfloor Insulation
Environmental Choice NZ (Licence No. 2508037) Autex GreenStuf® polyester thermal (re sistive-type) insulation

Manufacturer/supplier contact details

Company:	Autex Industries Limited
Web:	www.autex.co.nz
Telephone:	0800 428 839

Autex Insulation documents are also available on EBOSS

Web:	www.eboss.co.nz

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER
Provide a material manufacturer/supplier warranty:

- For Autex polyester thermal and acoustic insulation products.
- Provide this warranty on the Autex Insulation Certificate of Warranty standard form.

Requirements

1.6 QUALIFICATIONS
Work to be carried out by tradesmen experienced, competent and familiar with **Autex** Ins ulation materials and techniques specified.

1.7 NO SUBSTITUTIONS
This work section relates to NZBC compliant systems and under the building consent pro cess substitutions are not permitted to any specified insulation, associated products, com ponents or accessories.

Autex GreenStuf® products have been selected on specific performance criteria and their reduced environmental impact. Substitution of specified insulation materials will not be ac cepted.

2. PRODUCTS

Materials

2.1 POLYESTER FIBRE THERMAL INSULATING PADS
Autex GreenStuf® Pad Form- 100% polyester fibres thermally bonded to form a rectangul ar insulation pad. Manufactured in NZ under AS/NZS ISO 9001 and ISO 14001 quality an d environmental management systems. Refer to SELECTIONS for details.
NOTE: All GreenStuf® Polyester insulation is compliant with AS/NZS 60695.11.5 and can safely be installed abutted to downlights classified CA 80, CA 135 and can be safely insta lled covering downlights classified IC and IC-F.

2.2 POLYESTER FIBRE THERMAL INSULATING ROLLS / BLANKET
Autex GreenStuf® Roll Form- 100% polyester fibres thermally bonded to form a flexible in sulation blanket/roll. Manufactured in NZ under AS/NZS ISO 9001 and ISO 14001 quality and environmental management systems. Refer to SELECTIONS for details.
NOTE: All GreenStuf® Polyester insulation is compliant with AS/NZS 60695.11.5 and can safely be installed abutted to downlights classified CA 80, CA 135 and can be safely insta lled covering downlights classified IC and IC-F.

2.3 POLYESTER FIBRE THERMAL INSULATING ROOF BLANKET
Autex GreenStuf® Building Insulation Blanket (GreenStuf® BIB) - 100% polyester fibres th ermally bonded to form a flexible insulation blanket/roll for commercial roofing application s. Manufactured in NZ under AS/NZS ISO 9001 and ISO 14001 quality and environmenta l management systems. Refer to SELECTIONS for details.
NOTE: All GreenStuf® Polyester insulation is compliant with AS/NZS 60695.11.5 and can safely be installed abutted to downlights classified CA 80, CA 135 and can be safely insta lled covering downlights classified IC and IC-F.

2.4 POLYESTER FIBRE THERMAL INSULATING SKILLION ROOF BLANKET
Autex GreenStuf® Skillion Roof Blanket - 100% polyester fibres thermally bonded to form a flexible insulation material designed to achieve high R-Value performance in restricted c avities such as Skillion Roofs. Manufactured in NZ under AS/NZS ISO 9001 and ISO 140 01 quality and environmental management systems. Refer SELECTIONS for details.
NOTE: All GreenStuf® Polyester insulation is compliant with AS/NZS 60695.11.5 and can safely be installed abutted to downlights classified CA 80, CA 135 and can be safely insta lled covering downlights classified IC and IC-F.

Components

2.5 TAPES
Proprietary plastic tape, stapled across framing to retain insulation in unlined wall and ceil ing locations.

2.6 STAPLES / GUN STAPLER
Gun stapler and staples (standard or stainless steel as appropriate) for fixing GreenStuf® Masonry Wall Blanket and GreenStuf® Underfloor in place.

3. EXECUTION

Conditions

3.1 STORAGE
Accept materials undamaged and dry and store in a location that protects them from the weather and damage. Avoid distortion, stretching, puncturing and damage to insulation a nd packaging. Do not use damaged materials.

3.2 HANDLING
Avoid distortion of rectangular pad form. Maintain full thickness of the insulation unless c ompression is an installation system requirement.

3.3 INSPECTION
Before starting installation of Autex GreenStuf® blankets, pads and rolls, check that the lo cation and framing are free from moisture, that the cavities are not interconnected and tha t mesh, underlays and vapour barriers are in place.

Application

3.4 INSTALL INSULATION - GENERAL
Lay, install, fit and fix to NZBC H1/AS1: Energy efficiency, 2.0 Building thermal envelope, and to manufacturer's requirements. Install in housing to NZS 4218 and NZS 4246. Insta ll in large buildings to NZS 4243.1 and NZS 4220. Allow insulation to re-loft/relax prior to i nstallation. Do not cover vents. Allow a clear gap around metal flues as recommended by the fireplace manufacturer. Lift up electrical wires, lighting transformers/controllers and la y the insulation underneath.

3.5 RECESSED LIGHT FITTINGS - CLEARANCE
Non-residential applications;
The clearance between insulation and recessed downlights;
- 100mm gap to AS/NZS 3000, figure 4.9
- Provide larger clearances where required by the light manufacturer.

Residential applications;
- Ensure new recessed downlights are one of the new classes classified in AS/NZS 6059 8.2.2; CA 80, CA 135, IC and IC - F
- Classification type CA 80, CA 135, to AS/NZS 60598.2.2; insulation can abut the sides (wrapping around the sides)
- Classification type IC and IC - F, to AS/NZS 60598.2.2; insulation can abut and cover ov er the top of the downlight
- Provide larger clearances where required by the light manufacturer.
- In a retrofit situation where recessed downlights are unclassified or unknown, ensure 10 0mm clearance from the insulation to AS/NZS 3000, figure 4.9.

3.6 CHECK FOILS
Ensure foils are dry, clean, bright, undamaged and free of debris before installing insulati on.

3.7 CHECK WALL UNDERLAYS AND ROOF UNDERLAYS
Ensure foils are dry, clean, bright, undamaged and free of debris before installing insulati on.

3.8 CHECK VAPOUR BARRIERS
Ensure vapour barriers form a homogeneous sheet vapour barrier before installing insulat ion.

3.9 FIT POLYESTER FIBRE THERMAL INSULATION PADS
Friction fit GreenStuf® insulation pads in place to completely fill the whole of the cavities. Slightly oversize length for friction fit and tear by hand across pad and fill cavity. Tear to s maller pieces for smaller spaces and around penetrations. Leave no gaps and maintain f ull thickness over the whole of the installation. Do not cover vents and cut around metal fl ues to the safety requirement of the fireplace manufacturer. Fix in place with plastic tape as necessary to hold the insulation until the wall and or ceiling linings are in place.
Refer to GreenStuf® Pads and Roll Form installation instructions.

3.10 FIT POLYESTER FIBRE THERMAL INSULATION ROLLS
Friction fit GreenStuf® insulation rolls between the studs/joists, or in place to completely fil l the whole of the cavities. Slightly oversize length for friction fit and tear by hand across t he width of the roll. Tear to smaller pieces for smaller spaces and around penetrations. L eave no gaps and maintain full thickness over the whole of the installation. Do not cover vents and cut around metal flues to the safety requirement of the fireplace manufacturer. Fix in place with plastic tape as necessary to hold the insulation until the wall and or ceilin g linings are in place.
Refer to GreenStuf® Pads and Roll Form installation instructions.

3.11 FIT POLYESTER FIBRE THERMAL INSULATING SKILLION ROOF BLANKET
Friction fit Autex GreenStuf® Skillion Roof Blanket between the framing, or in place to co mpletely fill the whole of the cavities. Slightly oversize length for friction fit. Use off-cuts t o fill small spaces around penetrations. Leave no gaps and maintain full thickness of the i nsulation over the whole of the installation. Do not cover vents and cut around metal flue s to the safety requirement of the fireplace manufacturer.

Completion

3.13 CLEAN UP
Clean up as the work proceeds so no spare off-cuts or any other matter or item remain be hind claddings or linings.

3.14 LEAVE
Leave work to the standard required by following procedures.

3.15 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS

4.1 POLYESTER FIBRE THERMAL INSULATION - EXTERIOR WALLS

Location:	Timber strapping cavities
Brand:	Autex GreenStuf®
R Value:	R2.2
Thickness:	90mm

4.2 POLYESTER FIBRE THERMAL INSULATION - SKILLION ROOF

Location:	Under main roof
Brand:	Autex GreenStuf® Skillion Roof Blanket
R Value:	R2.9
Thickness:	115mm

4811S SIKA SEALANTS

1. GENERAL

This section relates to the selection of sealants and application methods for sealants nom inated in other work sections.

Related work

1.1 RELATED SECTIONS
Refer to ~ for ~.

Documents

1.2 DOCUMENTS
Documents referred to in this section are:
ISO11600 Building construction - Jointing products - Classification and requireme nts for sealants

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS
Sika (NZ) Ltd product data sheets relating to work in this section are:

Sika Primer Table Sikaflex / Sikabond. Version no: 02/08
Sikaflex® AT-Facade. Version no: 03/08
Sikaflex® Construction. Version no: 05/11
Sikasil® Roofing and Plumbing. Version no: 06/10
Sikasil ® NG. Version no: 17/08/08
Sikasil ® RTV. Version no: 12/10
Sikaflex® 11FC. Version no: 08/99
Sikadur® 51. Version no: 03/99
Sikaflex® Tank Version no: 02/03
Sika® Firerate. Version no: 06/10
Sika® Firerate PU. Version no: 02/08
Sika® Fast Gaps. Version no: 05/11
Sika Boom® Expanding Foam. Version no: 20/03/09
Sika Boom®- FR. Version no: 06/07
Sika Showerbond. Version no: 06/08
SikaBond® T55 (J) Version no.08.05
SikaBond® T53 Version no.08.05
Sika® Primer MB Version no 08.05

Independent VOC test certificates for quantity of VOC in grams per litre in accordance wit h SCAQMD Rule 1168 to Green Star Office design V2 IEQ-13/ IEQ-03

Copies of the above literature are available from Sika (NZ) Ltd
Web: www.sika.co.nz
Email: info@nz.sika.com
Telephone: 0800 SIKA NZ, 0800 745 269
Facsimile: 0800 SIKA FAX, 0800 745 232

1.4 ABBREVIATIONS AND TERMS
The following abbreviations and terms are used throughout this part of the specification:
VOC Volatile Organic Compound

Requirements

1.5 SEALANT SELECTION
Refer to the **Sika** (NZ) Ltd current Technical Data Sheet before commencing sealant insta llation. Ensure that the correct sealant has been selected for the intended application an d substrates. Check that the joint design allows for movement and or substrate thermal e xpansion and contraction, and is within the sealants range of service.

1.6 SAMPLE JOINT
Produce a sample joint for substrates or coatings not detailed in Sika (NZ) Ltd current Tec hnical Data Sheet. Upon full cure of the selected **Sika** sealant the test sample is to be us ed to assess sealant adhesion and compatibility with the substrate or coating. Following r eview and confirmation that work may proceed, the sample joint becomes the quality cont rol standard for subsequent work of each type. Sample joints may be retained as part of t he completed work.

1.7 QUALIFICATIONS
Sealant work, including preparation, to be carried out by competent and experienced seal ant applicators, approved by **Sika**. Provide evidence of technical competence and experi ence for review before commencing work.

1.8 MANUFACTURER'S TECHNICAL SERVICES
Sika (NZ) Ltd provides local testing and research and development assistance for non sta ndard applications. Use the research and development, and the technical information pro vided by **Sika** throughout the design, development, prototype testing and installation stag es of sealant work.

Warranties

1.9 WARRANTY - MANUFACTURER/SUPPLIER
Provide **Sika** (NZ) Ltd warranty for:
~ years: For material

- Provide the warranty in the **Sika** form.
- Commence the warranty from the date of practical completion of the contract works.
- **Sika** (NZ) Ltd will warrant that Sika sealant products will perform in accordance with the information stated in **Sika** (NZ) Ltd current Technical Data Sheets.
- Refer to **Sika** (NZ) Ltd for further information on warranty.

2. PRODUCTS

Materials

Specialist building facade sealants

2.1 SIKAFLEX® AT-FACADE
Sikaflex® AT-Facade, a one component moisture curing elastic sealant based on silane te rminated polymers. Conforms to ISO 11600 F, Type25LM.

2.2 SIKAFLEX® CONSTRUCTION
Sikaflex® Construction, a one component polyurethane based flexible joint sealant for por ous substrates. Conforms to ISO 11600 F, Type25HM.

3. EXECUTION

Conditions

3.1 COMPATIBILITY
Ensure compatibility by using only **Sika** branded sealants with **Sika** supplied joint fillers, p rimers, backing rods, bond breaker tape and cleaning solutions.

3.2 NON SLUMP SEALANTS
Use only thixotropic sealants capable of supporting their own weight (non slump) in vertic al applications.

3.3 SELF LEVELLING SEALANTS
Use only self levelling sealants in contained horizontal applications.

3.4 SUBSTRATE STAINING
Note that some silicon sealants can cause silicon oil staining on porous substrates such a s concrete and masonry.

3.5 SEALANT PAINTABILITY
Ensure that a paintable sealant is selected when the sealant joint requires painting. NOT E: This excludes silicon based sealants which are not paintable.

3.6 COLOURS
Refer to SELECTIONS for colour option/s. Where colour is not specified, choose sealant colours from the **Sika** standard/special colour ranges.

3.7 VISIT THE SITE
Arrange for the **Sika** representative to visit the site to examine the site conditions, to insp ect the surfaces and joints and to discuss the installation procedures, before any sealing work proceeds.

Preparatory work

3.8 ENSURE
Ensure that joints to receive sealants are suitable for the proposed application. Ensure th at surfaces are sound, dry, free from dust, dirt, scale, laitance, corrosion or other loose m aterial, oil, grease, paint, release agents or other contaminants which may affect the bond , or the performance of the sealing material.

Ensure that joints and spaces receiving sealant are within the specified width to depth rati o in accordance with **Sika** sealant product data sheet. Ensure that the joint design allows for movement and/or substrate thermal expansion and contraction that are within the seal ants range of service.

3.9 TEST SUBSTRATES
Test substrates for indications of staining or poor adhesion. If poor adhesion is evident fr om initial tests, consult **Sika** about the application of a suitable primer. Only use combina tions of sealants and substrates for which favourable adhesion and compatibility have be en confirmed.

Do not apply sealant to concrete or concrete block until concrete and/or mortar has cured.

3.10 CLEAN JOINTS
Clean joints as detailed in application instructions contained in **Sika** (NZ) Ltd product data sheet to achieve acceptable joint surfaces for the application of sealant. Protect adjacent surfaces from abrasion or other damage.

3.11 CLEAN METAL SURFACES
Clean metal surfaces with approved **Sika** (NZ) Ltd cleaners to remove any grease deposit s.

3.12 GRIND CONCRETE SURFACES
Grind concrete surfaces to remove concrete laitance and other surface contaminates prio r to applying Sika Primers

3.13 MASK
Mask adjacent surfaces alongside joints to prevent contamination. Mask off any surfaces which would be difficult to clean if smeared with sealant, or where excess sealant could n ot be neatly trimmed off or removed.

3.14 VENTILATION
Ensure adequate ventilation for sealant applicators during the preparation and application of sealant work.

Application

3.15 FINAL PREPARATION
Prepare joints in accordance with approved **Sika** (NZ) Ltd cleaning methods.

3.16 BACKING
Insert **Sika** PEF backing rod or bond breaker tape to avoid three sided adhesion. **Sika** PE F backing rod diameter is be 25% larger than the gap size. Use only blunt instruments to install backing rods to avoid puncturing or damage. Do not twist rods when installing. W hen using backup material do not leave gaps and do not reduce the depth of the sealant j oint to less than the minimum required by Sika.

3.17 PRIMING
Use **Sika** supplied/recommended primers. Allow to cure for **Sika** recommended time (mi nimum and maximum). Refer to **Sika** for instructions if maximum cure time is exceeded b efore sealant is applied. Do not contaminate bond breakers with primer.

Allow primer to dry as recommended by the manufacturer. Do not prime more than can b e completed in one day. Prevent contamination of the primed surfaces prior to applying s ealant.

3.18 JOINT FILLING
Fill joint cavity with sealant in accordance with **Sika** requirements and quality control prog rammes. Use a pressure gun with a nozzle cut to suit the required joint width. Ensure se alant is deposited in a uniform, continuous bead, without gaps or air pockets and with cle an, neat edges.

3.19 TOOLING
Tool sealant to form a smooth, flat bead, or a smooth convex fillet, with a profile as requir ed by **Sika**. Complete tooling before the sealant surface starts to form a skin.

3.20 FINISHING
Remove masking immediately after tooling and before sealant surface starts to skin. Re move excess sealant from adjoining surfaces before the sealant has set, using the cleani ng materials and methods required by **Sika**, leaving surfaces clean and the sealant runs undamaged.

3.21 SURROUNDING WORK
Leave surrounding surfaces in a neat, clean condition with no evidence of spill over.

Completion

3.22 CLEAN UP
Clean up as the work proceeds.

3.23 LEAVE
Leave work to the standard required by following procedures.

3.24 REMOVE
Remove masking tape, used packaging and waste products from the site.

4. SELECTIONS

Sika exterior sealants

4.1 ROOF - SIKASIL®

Substrate:	Colorsteel roofing and flashings
Primer:	n/a
Product:	Sikasil® Roofing and Plumbing (VOC content 22 grams/Litre vs. 250 gr ams /Litre limit for architectural sealants)
Location:	~

4.2 ROOF - SIKA BLACKSEAL®

Substrate:	~
Primer:	n/a
Product:	Sika BlackSeal® -1 (VOC content 126 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area:	~
Location:	~

4.3 WALLS - SIKAFLEX® AT-FACADE

Substrate:	Alocobond
Cleaner/primer:	Sika Cleaner-205, non porous substrates
Sika Primer-3N, porous substrates	
Product:	Sikaflex® AT-Facade (VOC content 113 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area:	Panel joints and seams

4.4 WALLS - SIKAFLEX® CONSTRUCTION

Substrate:	~
Primer:	Sika Primer-3N
Product:	Sikaflex® Construction (VOC content 69 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area:	Panel joints and seams
Location:	~

4.5 WINDOWS/DOORS

Substrate:	~
Primer/cleaner:	Sika Cleaner-205
Product:	Sikaflex® AT-Facade (VOC content 113 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area:	Frame, perimeter joints
Location:	~

Sika interior sealants - wet areas

4.9 ACCESSIBLE WC - SHOWER PANEL BONDING

Substrate:	Acrylic
Primer:	n/a
Product:	Sika Showerbond
Application area:	Bond between acrylic shower panel and timber frame

4.10 ACCESSIBLE WC – SHOWER LINING JOINTS

Substrate:	Hardies coated wallboard
Primer:	n/a
Product:	Sikasil ® RTV (VOC content 22 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area:	Panel joints and seams
Location:	Shower

5113G GIB® PLASTERBOARD LININGS

1. GENERAL

This section relates to the supply, fixing and jointing of GIB® plasterboard linings and accessories to timber and steel framed walls and ceilings to form:
- standard systems
- wet area systems

1.1 RELATED SECTIONS
Refer to 3821L for Laserframe Timber Framing.

1.2 ABBREVIATIONS
The following abbreviations are used throughout this part of the specification:

AWCINZ	Association of Wall and Ceiling Industries New Zealand

Documents

1.3 DOCUMENTS REFERRED TO
Documents referred to in this section are:

NZBC E2/AS1	External moisture
AS 1397	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
AS/NZS 2588	Gypsum plasterboard
AS/NZS 2589	Gypsum linings - Application and finishing
NZS 3604	Timber-framed buildings
AS/NZS 4600	Cold-formed steel structures
BRANZ technical paper P21: A wall bracing test and evaluation procedure	
NASH	Residential and Low-Rise Steel Framing Part 1 2010 Design Criteria

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.4 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents which refer to work in this section are:
- GIB® Site Guide (Jan 2010)
- GIB Ultraline® Plus lining system (February 2006)
- GIB® Noise Control Systems (March 2006)
- GIB Aqualine® Wet Area Systems (March 2007)

- GIB® Rondo® Metal Ceiling Batten Systems

- GIB® Goldline® Platinum Tape-on Trims
- GIB® UltraFlex high impact corner mould

BRANZ Appraisal 294 (2011) - GIB® Ezybrace® Systems
BRANZ Appraisal 427 - GIB Aqualine® Wet Area Systems

Copies of the above literature are available at

Web:	www.gib.co.nz
Telephone:	0800 100 442

Requirements

1.5 NO SUBSTITUTIONS
Substitutions are not permitted to any specified GIB® systems, GIB® system components, GIB® plasterboard, associated GIB® products or GIB® accessories.

1.6 INSTALLER WORK SKILLS AND QUALIFICATIONS
GIB® plasterboard fixers and plasterers to be experienced competent workers, familiar wit h GIB® plasterboard lining systems installation and finishing techniques. Submit evidence of experience on request. For example:

- National Certificate of Interior Systems; or
- Certified Business member of AWCINZ.

Performance

1.7 INSPECTIONS AND ACCEPTANCE
Allow for inspection of the finished plasterboard surface:
- before applying sealer and
- before applying finish coatings or decorative papers,
so that after assessment of the type and/or angle of illumination and its effect on the com pleted decorative treatment, group approval and acceptance of the surface can be given.

2. PRODUCTS

Materials

2.1 GIB® PLASTERBOARD
Gypsum plaster core encased in a face and backing paper formed for standard and water resistance use to AS/NZS 2588. Refer to SELECTIONS for location, type, thickness and finish.
GIB® Standard plasterboard

GIB Aqualine® wet area plasterboard

Components

2.3 CEILING BATTENS
GIB® Rondo® metal ceiling battens, batten joiners and perimeter channel.

2.4 SCREWS
GIB® Grabber® drywall screws.

2.5 NAILS
GIB® Nails (gold passivated).
Size: 30mm, 40mm

2.6 TAPE ON TRIMS AND EDGES
GIB® Goldline® tape-on trims
GIB® UltraFlex high impact corner mould

2.7 METAL ANGLE TRIMS
GIB® galvanized steel slim angle trims.

2.8 CONTROL JOINTS
GIB® Rondo® P35 control joints.
GIB® Goldline® tape-on trims

Accessories

2.9 ADHESIVE
Timber frame and/or steel frame:
GIBFix® One ultra low VOC water based wallboard adhesive
GIBFix® All-Bond solvent based wallboard adhesive

2.10 JOINTING COMPOUND

Bedding compound:	GIB Tradeset®, GIB Lite Blue®, GIB MaxSet®, GIB ProMix® All Purp ose, GIB Plus 4®
Finishing compound:	GIB ProMix® All Purpose, GIB® Trade Finish®, GIB® Trade Finish® Lite, GIB ProMix® Lite, GIB® U-Mix, GIB Plus 4®
Cove:	GIB-Cove® Bond

2.11 JOINTING TAPE
GIB® paper jointing tape.

2.12 GAP FILLER
GIB® Gap Filler ultra low VOC multi-purpose acrylic flexible filler

3. EXECUTION

Conditions

3.1 STORAGE
Store GIB® plasterboard sheets and accessories in dry conditions stored indoors out of di rect sunlight in neat flat stacks on either an impervious plastic sheet or clear of the floor w ith no sagging and avoiding damage to ends, edges and surfaces. Reject damaged mate rial. Refer to GIB® Site Guide (Jan 2010).

3.2 LEVELS OF PLASTERBOARD FINISH
Provide the selected plasterboard surfaces to the pre decorative levels of finish specified i n AS/NZS 2589.

3.3 CONFIRM LEVELS OF PLASTERBOARD FINISH ACCEPTANCE
Before commencing work, agree in writing upon the surface finish assessment procedure towards ensuring that the quality of finish expectations are reasonable and are subseque ntly obtained and acceptable.

Do not apply decorative treatment until it is agreed in writing by the contractor, sub contractors and decorator that the specified plasterboard Level of Finish has been achieved.

"Levels of plasterboard finish" is a tool for specifying the required quality of finish when in stalling and flush stopping GIB® plasterboard **prior** to the application of a range of decora tive finishes under various lighting conditions. Refer to **AS/NZS** 2589.

3.4 SUBSTRATE
Do not commence work until the substrate is plumb, level and to the standard required by the sheet manufacturer's requirements. Refer to GIB® Site Guide (Jan 2010).

3.5 TIMBER FRAME MOISTURE CONTENT
Maximum allowable moisture content to AS/NZS 2589 for timber framing at lining: 18% or less for plasterboard linings. Refer to NZBC E2/AS1 and GIB® Site Guide (Jan 2010).

3.6 METAL FRAMING
Metal framing, to which gypsum lining is fixed, shall comply with AS 1397, AS/NZS 4600, or NASH Residential and Low-Rise Steel Framing Part 1 2010 Design Criteria, as applica ble. Where adhesion of gypsum linings is required, surfaces shall be free of oil, grease, d ust and other foreign materials. Refer to the metal framing manufacturers specifications where high density gypsum linings (>800 kg/m³) such as GIB Braceline® and GIB Noiselin e® are specified for fixing to light gauge steel framing.

3.7 PROTECTION
Protect surfaces; cabinetwork, fittings, equipment and finishes already in place from the p ossibility of water staining and stopping damage. Refer to GIB® Site Guide.

Application

3.8 INSTALL CEILING BATTENS
Install to GIB® Rondo® Ceiling Batten Systems.

3.9 LINING WALLS AND CEILINGS GENERALLY
Form to GIB® Site Guide (Jan 2010). Ensure bulk insulation thickness shall not exceed th at of the wall framing.

3.10 BOARD ORIENTATION
Minimise joints by careful sheet layout using the largest sheet sizes possible, and general ly fixing horizontally. Where part sheets are required for various stud heights they should be positioned so the cut sheet is as low as possible to keep joints below eye level.

3.11 FORM WET AREA SYSTEMS
Form to GIB Aqualine® Wet Area Systems.

3.12 FORM CONTROL JOINTS
Form control joints to GIB® Site Guide.

3.13 INSTALL COVES
Install to GIB-Cove® literature using GIB-Cove® Bond.

3.14 INSTALL TAPE-ON TRIMS
Install to GIB® Goldline® Tape-on trims literature and/or GIB® Ultraflex high impact corner mould literature.

Finishing

3.15 FINISHING GENERALLY
To GIB® Site Guide (Jan 2010) and AS/NZS 2589.

Completion

3.16 REPLACE
Replace damaged sheets or elements.

3.17 CLEAN DOWN
Clean down completed surfaces to remove irregularities and finally sand down with fine p aper to the sheet manufacturer's requirements, to leave completely smooth and clean.

3.18 REMOVE
Remove debris, unused materials and elements from the site.

3.19 LEAVE
Leave work to the standard required by following procedures.

4. SELECTIONS

Plasterboard

4.1 STANDARD SYSTEMS WALLS

Location	Plasterboard type / Lining require ments	Thickness	Finish Level
Internal Walls	GIB® Standard plasterboard	13mm	Level 4
Accessible WC	GIB Aqualine® plasterboard	13mm	Level 4

4.2 STANDARD SYSTEMS CEILINGS

Location	Plasterboard type / Lining require ments	Thickness	Finish Level
Internal Walls	GIB® Standard plasterboard	13mm	Level 4
Accessible WC	GIB Aqualine® plasterboard	13mm	Level 4

Accessories

4.4 CEILING BATTENS
Brand/type: GIB® Rondo® Ceiling battens

4.5 TAPE ON EDGE OR CORNER TRIMS
Brand/type: Gib "Goldline"

5231 INTERIOR DOORS

1. GENERAL

This section relates to the supply and installation of interior:
- doors and frames
- doorsets

1.1 RELATED WORK
Refer to ~ for ~
Refer to glazing sections for glazing
Refer to painting sections for finishes

Documents

1.2 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

AS/NZS 1170.1	Structural design actions - Permanent, imposed and other actions
NZS 3602	Timber and wood-based products for use in building
NZS 3604	Timber-framed buildings
NZS 3610	Specification for profiles of mouldings and joinery
NZS 4223.3	Glazing in buildings - Human impact safety requirements

WANZ PQAS: Powder Coating Quality Assurance System
WANZ SFA 3503-03: Anodic Oxide coatings on wrought aluminium for external architectural application (2005).

Performance - doorsets

1.4 PERFORMANCE REQUIREMENTS
Refer to 5241 FIRE AND ACOUSTIC INTERIOR DOORS AND WINDOWS for fire and acoustic performance details.

2. PRODUCTS

Materials - door and window frames general

2.1 TIMBER DOORS AND WINDOWS
To NZS 3602. Moisture content 10-14%. To NZS 3610.

Materials - doors general

2.2 TIMBER
To NZS 3602. Moisture content 10-14%. To NZS 3610. Solid or hollow core.

Materials - doorsets

2.3 STANDARD DOORSETS, SIDE HUNG DOOR
Frames to profile as detailed and dimensioned, fitted with solid or hollow core door.
Refer to SELECTIONS.

Components

2.4 DOOR FURNITURE
Refer to 5521 HARDWARE for type and finish.

2.5 SCREWS
Stainless steel or non-corrodible metal. Length sufficient to penetrate into the background support up to the shank. Screws for fixing hinges, hardware or furniture to match the item being attached.

2.6 NAILS
Length sufficient to penetrate into the background support at least half the nail length, exc ept if into radiata pine then three-fifths their length.

2.7 DOOR HINGES
Size and gauge to carry door size and weight. 3 hinges per door.

Type:	Loose pin
Size:	89mm
Material:	Zinc-plated steel
Pin:	Loose-pin zinc-plated steel

2.8 DOOR SKIN (FACINGS)
Doors skins as detailed and dimensioned.

Finish

2.9 TIMBER - PAINT FINISH
Site applied coating system.

3. EXECUTION

Conditions

3.1 GENERALLY
Execution to include those methods, practices and processes contained in the unit standa rds for the National Certificate in Carpentry and the National Certificate in Joinery (cabinet ry, exterior joinery, stairs).

3.2 DO NOT DELIVER
Do not deliver any elements which cannot be unloaded immediately into suitable storage conditions.

3.3 HANDLE
Handle, unload and store elements without distortion and avoiding pre-finished surfaces r ubbing together, and contact with mud, moisture and other damaging materials.

3.4 PROTECT
Protect all elements against damage to arrises and glazing beads. Store frames and doo rs flat and away from moisture or direct sunlight.

3.5 FABRICATE DOORSETS
Fabricate doorsets and windows in the factory with doors hung, provision for furniture ma de, finishes applied and fully operable.

3.6 FABRICATE DOORS
Fabricate doors in the factory, with provision for door furniture.

3.7 CHECK ALL OPENINGS
To NZS 3604.Check all openings on site for size and standard of execution before installi ng window or door frames. Installation tolerances of windows subject to earthquake desi gn to comply with AS/NZS 1170.1.

Assembly

3.8 FABRICATION GENERALLY
Manufacture and fabricate frames and doors as detailed. Install hinges and running gear as scheduled. Provide temporary bracing and protection. Temporarily secure all opening elements for transportation.

Application - generally

3.9 FIXING FRAMES
Fix and assemble frames rigidly in place, plumb, level and true to line and face without dis tortion and with all opening sashes fully and easily operating. Fit architraves.

3.10 DISTORTION
Do not distort frames when wedging or other packing, or when tightening fixings. If neces sary adjust packing and fixings to eliminate binding. Do not cut, plane or sand frames to r emedy distortion.

3.11 FIXINGS
Fix frames so that nail heads are covered by applied stops and beads. Punch all nail hea ds below timber surfaces which will be visible in completed work. Ensure that at least on e frame fixing is adjacent to each hanging point.

Application - doorsets

3.12 PROPRIETARY ELEMENTS
Fix in accordance with the door manufacturer's requirements.

3.13 INSTALLATION GENERALLY
Wedge frames into opening and fix through into the wall framing. Locate all wedges and f ixing at hinge positions and opposite, with one fixing in the vicinity of the lock. Fixings co ncealed behind planted stops.
Hang doors on hinges, sliding or bi-fold gear as specified and to operate freely. Fit all har dware and door furniture.

3.14 TIMBER STUD WALLS - TIMBER FRAMES
Wedge into opening and nail through into the studs. All wedges and fixing to be at hinge positions and opposite, with one fixing in the vicinity of the lock.

3.15 BOTTOM CLEARANCE
Provide for specified floor coverings plus 5mm clearance at any point of swing. When flo or covering is not specified, allow 25mm total.

For ventilated and/or air conditioned spaces allow 20mm clearance above finished floor c overings for supply/return air.

3.16 REMOVE DOORS
Remove doors from the frames if necessary to protect them, or for re-finishing, store safel y and near completion refit them, all without any damage.

3.17 INSTALL PANELS
Prime rebates and beads, install sealant backing strips or silicone. Install dry beading to outside of panels as selected. Do not mitre corners of beads.

3.18 INSTALL FURNITURE
Install latches, locks and door furniture as scheduled.

3.19 CHECK
Check and adjust operation of all doors, hardware and furniture.

4. SELECTIONS

Doors

4.5 STANDARD DOORSETS, SIDE HUNG DOOR

Manufacturer:	
Door type:	Solid core
Material:	Paint quality timber
Door leaf size:	refer to Door Schedule
Edge clashing:	10/10mm sides
Door finish:	Paint Finish

5231C CS FOR DOORS®

1. GENERAL

This section relates to the supply and installation of **CS FOR DOORS®**:
- cavity slider doors
- CaviLocK handle hardware

1.1 RELATED WORK
Refer to glazing section/s for glazing for timber doors

Documents

1.2 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

AS/NZS 1170.1	Structural design actions - Permanent, imposed and other actions
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
NZS 3602	Timber and wood-based products for use in building
NZS 3610	Specification for profiles of mouldings and joinery
NZS 4121	Design for access and mobility - Buildings and associated facilities

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are:

CS FOR DOORS® Specifiers Guide
BIA Accreditation #93/006A.

Copies of the above literature are available at
Web: www.csfordoors.co.nz
Telephone: 09 276 0800 Auckland
021 630 800 Auckland
07 928 0800 Waikato/Bay of Plenty
04 473 9994 Wellington
03 348 6158 South Island

Warranties

1.4 WARRANTY
Provide the following CS FOR DOORS® warranties

10 Years on the following product categories:
Cavity Sliders, Wardrobe Sliders, Pre- Hung Jambs, Track Systems, Gate Systems.

5 Years on the following product categories:
CS manufactured Door Leaves, Automatic Units

2 Years on the following product categories:
CaviLocK Handle Hardware

12 Months on the following product categories:
Electrical components and parts

Provide this warranty on the manufacturer's standard form.

Refer to the general section 1237 WARRANTIES for additional requirements. Refer to www.csfordoors.co.nz for guarantee terms and conditions.

Requirements

1.5 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and pr oducts.

1.6 QUALIFICATIONS
Carry out the installation work with trained, experienced, competent installers familiar with the products being used. CS FOR Doors® can also recommend an experienced installer. Phone 0800 SLIDER to find out more about this service.

2. PRODUCTS

Materials - general

2.1 TIMBER
Solid timber to NZS 3602 to profiles detailed. Moisture content approximately 16% ex fac tory.

2.2 INTERIOR TIMBER
To NZS 3602. Moisture content approximately 10-14%.

Materials - doorsets

2.3 STANDARD CAVITY SLIDER UNITS
CS CavitySliderS® doors to profile as scheduled, detailed and dimensioned, and to BRA NZ Appraisal 264A CS Cavity Sliders.

2.4 STANDARD DOORSETS, SLIDING,
Frames to profile as detailed and dimensioned.

Components

2.5 DOOR FURNITURE
CS CaviLocK™ architectural handles and locks as scheduled.

2.6 SCREWS
Stainless steel or non-corrodible metal. Length sufficient to penetrate into the backgroun d support up to the shank. Screws for fixing hinges, hardware or furniture to match the ite m being attached.

2.7 NAILS
Length sufficient to penetrate into the background support at least half the nail length, exc ept if into radiata pine then three-fifths their length.

2.8 SLIDING DOOR GEAR
CS CavitySliderS® track to suit door size, weight and application. Stainless steel carriag es and mount plates are available for the CS240 kg and CS500 kg systems.

Finish

2.9 FINISH
Paint Finsih

3. EXECUTION

Conditions

3.1 GENERALLY
Execution to include those methods, practices and processes contained in the unit standa rds for the National Certificate in Carpentry and the National Certificate in Joinery (cabinet ry, exterior joinery, stairs).

3.2 DO NOT DELIVER
Do not deliver any elements which cannot be unloaded immediately into suitable storage conditions.

3.3 HANDLE
Handle, unload and store elements without distortion and avoiding pre-finished surfaces r ubbing together, and contact with mud, moisture and other damaging materials.

3.4 PROTECT
Protect all elements against damage to arrises and glazing beads. Store frames and doo rs flat and away from moisture or direct sunlight.

3.5 FABRICATE DOORSETS
Fabricate doorsets in the **CS FOR Doors®** factory with doors hung, provision for furniture made, finishes applied and fully operable.

3.6 FABRICATE DOORS
Fabricate doors in the factory, with provision for door furniture.

3.7 CHECK ALL OPENINGS
Check all openings on site for size and standard of execution before installing window or door frames. Installation tolerances of windows subject to earthquake design to comply w ith AS/NZS 1170.1 or NZS 1170.5.

Assembly

3.8 FABRICATION GENERALLY
Manufacture and fabricate frames and doors as detailed. Install running gear as schedul ed. Provide temporary bracing and protection. Temporarily secure all opening elements f or transportation.

Application - generally

3.9 FIXING FRAMES
Fit flashings to frame and framing as required. Fix and assemble frames rigidly in place, plumb, level and true to line and face without distortion. Fit facings, scribers, draught-sto pping and sealants.

3.10 DISTORTION
Do not distort frames when wedging or other packing, or when tightening fixings. If neces sary adjust packing and fixings to eliminate binding. Do not cut, plane or sand frames to r emedy distortion.

3.11 FIXINGS
Fix frames so that nail heads are covered by applied stops and beads. Punch all nail hea ds below timber surfaces which will be visible in completed work. Ensure that at least on e frame fixing is adjacent to each hanging point.

Application - doorsets

3.12 PROPRIETARY ELEMENTS
Fix in accordance with **CS FOR DOORS®** requirements.

3.13 INSTALLATION GENERALLY
Frames finished to match the width of lined walls. Wedge frames into opening and nail th rough into the studs making sure you have one fixing in the vicinity of the lock.

Hang doors on sliding gear as specified and to operate freely. Fit all hardware and door f urniture to CS FOR DOORS® instructions.

3.14 INSTALL STANDARD DOORSETS
Timber stud walls - timber frames

- Fix direct to opening and pack, with one fixing in the vicinity of the lock.

Steel stud walls - timber frames
- Drill the timber frame and fix to steel studs with countersunk self-drilling corrosion proof screws. Fix direct to opening and pack, with one fixing in the vicinity of the lock.

3.15 BOTTOM CLEARANCE
Provide for specified floor coverings plus a minimum of 5mm clearance at any point of slid e. When floor covering is not specified, allow 25mm total.

For ventilated and/or air conditioned spaces allow 20mm clearance above finished floor c overings for supply/return air.

3.16 REMOVE DOORS
Remove doors from the frames if necessary to protect them, or for re-finishing, store safel y and near completion refit them, all without any damage.

3.17 INSTALL PANELS
Prime rebates and beads, install sealant backing strips or silicone. Install dry beading to outside of panels as selected. Do not mitre corners of beads.

3.18 INSTALL FURNITURE
Install latches, locks and door furniture as scheduled.

3.19 CHECK
Check and adjust operation of all doors, hardware and furniture.

Completion

3.20 PROTECTION
Protect all finishes against damage from adjacent and following work.

3.21 REPLACE
Replace damaged, cracked or marked elements.

3.22 TRADE CLEAN
Clean off or remove safety indicators at completion of the building.

3.23 LEAVE
Leave work to the standard required for following procedures.

3.24 REMOVE
Remove safety indicators and protective coverings, and wipe down all doorsets thoroughl y to leave them perfectly clean. Remove all debris, unused materials and elements from t he site.

4. SELECTIONS

Substitutions are not permitted to the following, unless stated otherwise.

CS Cavity Sliders Standard Range

4.1 CS CAVITYSLIDERS® TIMBERFORMED

Location:	Accessible WC
Leaf dimensions:	Refer to Door Schedule
Door type:	Slider
Door finish:	Paint
Single or Biparting:	Single
Jamb type/finish:	Timber painted
Framing/size:	90x45
Lining thickness:	13mm
Handle type:	CaviLock CL100 Lavilock

5311AM AMF ACOUSTIC TILE CEILING SYSTEMS

1. GENERAL

This section relates to the manufacture, supply and installation of AMF suspended ceiling systems, including all elements offered by the manufacturer to complete the system.

1.1 SCOPE OF WORK
New suspended ceiling system to building

1.2 ABBREVIATIONS AND DEFINITIONS
The following abbreviations are used throughout this part of the specification:

NRC	Noise reduction coefficient
CAC	Ceiling attenuation class
STC	Sound transmission class
AWCINZ	Association of Wall and Ceiling Industries of New Zealand Inc

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documen ts are specifically referred to in this section:

NZBC C/AS1-AS7	Protection from fire
NZBC C/VM2	Protection from fire
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
AS/NZS 2785	Suspended ceilings - Design and installation
AS 2946	Suspended ceilings, recessed luminaires and air diffusers - Interface r equirements for physical compatibility
AS/NZS 3837	Method of test for heat and smoke release rates for materials and pro ducts using an oxygen consumption calorimeter (cone test)
NZS 4219	Seismic performance of engineering systems in buildings
ASTM C423	Test method for sound absorption and sound absorption coefficients b y the reverberation room method
ASTM C 635	Standard specification for the manufacture, performance and testing o f metal suspension systems for acoustical tile and lay-in panel ceilings
ASTM E1414	Standard test method for airborne sound attenuation between rooms s haring a common ceiling plenum (two room method)

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and suppliers documents relating to this part of the work:

AMF Warranty

AMF Thermatex Acoustic 0.7 NRC 38CAC

USG Donn® Brand Grid Suspension Systems
AMF Early Fire Reaction - AS/NZS 3837
USG Generic Seismic Design Guide www.seismicceilings.co.nz

Manufacturer/supplier contact details

Company:	**Potter Interior Systems**
Web:	www.potters.co.nz
Email:	info@potters.co.nz
Telephone:	0800 POTTER (0800 768 837)

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER
Provide a material manufacturer/supplier warranty:
AMF Acoustical ceiling panels - 10 years
USG's System Lifetime Warranty Donn® Suspension System - 15 years

- Provide this warranty on Potter Interior Systems standard form.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Requirements

1.6 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and pr oducts.

1.7 SAMPLE SECTION
Allow to erect a sample section of the suspended ceiling system offered. Subject to confir mation in writing, the sample section may form part of the completed installation.
Refer to SELECTIONS for location.

1.8 INSTALLATION
To AS/NZS 2785. Installation by a manufacturer's accredited installer, using the manufact urer's technical services. Accredited installers must be members of the AWCINZ or provid e evidence of experience, listing completed projects of similar size and complexity.

Installation to comply with the requirements of NZS 4219; with related building services in stallations complying specifically with clauses 5.9 **Ducting**, 5.14 **Luminaires**, and 5.13 **C eiling-suspended equipment and equipment in ceiling voids**.

1.9 CLEANING INSTRUCTIONS
Supply information on the materials and method of cleaning the ceiling system over its ex pected life.

1.10 SPARES
Provide spare matching ceiling elements in the quantities specified below. Deliver into a dry store at the site or elsewhere as directed and at agreed times. Refer to SELECTION S for quantity.

Compliance information

1.11 INFORMATION REQUIRED FOR CODE COMPLIANCE
Provide the following compliance documentation: -

- Seismic Bracing Design to be provided by Potter Industries.
- Applicators approval certificate from the manufacturer / importer / distributor
- Manufacturer's, importers or distributors warranty
- Installer's / applicator's warranty
- Producer Statement - Construction from the applicator / installer
- Producer Statement - Construction Review from an acceptable suitably qualified person
- Other information required by the BCA in the Building Consent Approval documents.

Performance

1.12 LOADING CODE REQUIREMENT
Comply with the requirements of NZS 1170.5 section 8.

1.13 CERTIFICATION
Provide:
- certification of compliance with NZS 1170.5, section 8 for evaluation
- certificates and other evidence that the system offered complies with the standards of p erformance specified
- a Producer Statement on completion.

1.14 ACOUSTIC REQUIREMENTS
Use an independent testing authority to test a specimen of the ceiling system to ASTM C 423 and ASTM E1414. Refer to SELECTIONS for acoustic performance requirements. Submit the results if requested.

1.15 FIRE GROUP NUMBERS
The Group Number Classification to NZBC C/AS2-AS7, table 4.1, has been determined in accordance with NZBC C/VM2 Appendix A, following testing and data reduction to ISO 56 60.1.

TILE	GROUP NUMBER
Thermatex Acoustic	1-S

1.16 ENVIRONMENTAL REQUIREMENTS
Design the ceiling system for use over its expected life without deterioration within the req uired temperature and humidity range. Refer to SELECTIONS for details.

1.17 REFLECTANCE
To ASTM C523. Refer to SELECTIONS for reflectance and colour.

2. PRODUCTS

Materials - exposed grid systems

2.1 GRID SUSPENSION SYSTEM - EXPOSED
Manufactured in New Zealand by USG Interiors Pacific Limited. Hot-dip galvanized steel elements to ASTM C635 for carrying ceiling panels, light fixtures and air distribution elem ents and complying with NZS 1170.5, section 8.
Brand: USG Donn®
Grid type: Two way exposed
Grid finish/colour: Pacific White

2.2 PERIMETER TRIM
Manufactured by USG Interiors Pacific Limited. Hot-dip galvanized pre-painted steel.
Brand/form: USG Donn®
Material: Hot-dip galvanized steel
Finish/colour: Pacific White

2.3 CEILING TILES - EXPOSED GRID
Brand: AMF
Edge profile: Recessed VT15/24
Performance: ASTM C423, ASTM E1414
Refer to SELECTIONS

3. EXECUTION

Conditions

3.1 CO-ORDINATE SERVICES
Co-ordinate and co-operate with electrical and mechanical work to avoid conflict between suspension members and luminaires, diffusers, pipework and ducting. Confirm the provis ion of extra hangers and fixings.

Ensure co-operation with work in and above the ceiling, including the marking of specific ceiling tiles below major access points to above-ceiling services. Colour coded markings to follow the standards laid down by mechanical and electrical services.

3.2 SITE CONDITIONS
Do not begin installation until the building is closed in, fully glazed, the roof watertight, the atmospheric conditions within the manufacturer's guidelines, and mechanical and electric al duct work above the ceiling completed.

3.3 COMPLY
Comply with AS 2946 for interface requirements for physical compatibility.

3.4 RESPONSIBILITY
Ensure that conditions are suitable for the ceiling installation. Arrange for the programmin g of the work to suit required practice.

Application

3.5 INSTALL
Install the system to AS/NZS 2785 minimum standards and the ceiling manufacturer's req uirements.

3.6 ACCESSIBILITY
Provide access to the ceiling system and the in-ceiling and above-ceiling services so that maintenance and removal of any part can be carried out without damage to the ceiling sy stem or panels.

3.7 PENETRATIONS
Accommodate recessed light fittings, air conditioning outlets and other electrical and/or m echanical services that are fixed to or pass through the ceiling system. Provide independ ent support for these as necessary. Such fittings are not to be supported by the acoustic al ceiling panels.

3.8 RETURN AIR PLENUM
Tiles to prevent release of fibres into the ceiling space, air conditioning or ventilation syste m. Clip tile down to the grid to stop lifting if required.

3.9 PROTECT EXISTING WORK
Protect adjacent existing work from damage during the installation.

Completion

3.10 ROUTINE CLEANING
Carry out routine trade cleaning of this part of the work including periodic removal all debr is, unused and temporary materials and elements from the site.

3.11 DEFECTIVE OR DAMAGED WORK
Repair damaged or marked elements. Replace damaged or marked elements where rep air is not possible or will not be acceptable. Leave work to the standard required for follo wing procedures.

3.12 PROTECTION
Provide the following temporary protection of the finished work:

4. SELECTIONS

For further details on selections go to www.potters.co.nz
Substitutions are not permitted to the following, unless stated otherwise.

Performance

4.2 ACOUSTIC REQUIREMENTS

NRC:	0.70 minimum
CAC:	38dB minimum room to room

4.3 ENVIRONMENTAL REQUIREMENTS

Range:	18-25°C
Relative humidity:	up to 95 % maximum

4.4 REFLECTANCE

Reflectance:	88% minimum
For (colour):	White

Materials

4.5 SCHEDULE

Area:	Refer to Ceiling Plan

Acoustical rating: NRC: 0.70
CAC: 38Db
STC: ~

Materials - exposed grid system

4.6 SUSPENSION SYSTEM, ACOUSTIC
Location: New Building (Refer to Ceiling Plan)
Type: Donn® exposed grid
Module: 1200mm x 600mm
Rail face: 25mm

4.7 PERIMETER TRIM
Type: Shadowline

Materials - ceiling tiles

4.8 CEILING TILES - HIGH SOUND ABSORPTION
Location: New Building (Refer to Ceiling Plan)
Brand/type: AMFThermatex Acoustic
Size: 1200 x 600 mm x 19mm

Spares

4.10 SPARES
Panels: 10

5521 HARDWARE

1. GENERAL

This section covers the supply and installation of door and window hardware and furniture .

1.1 RELATED WORK
Refer to Hardware Schedule Appendix

Documents

1.2 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:
Appended Hardware Schedule

Requirements

1.4 SUPPLIER
A specialist in the supply of hardware, employing an experienced architectural hardware representative available to assist during the course of the hardware installation.

1.6 SAMPLES
Submit samples on request of nominated hardware elements, along with the relevant manufacturers' technical literature for review.

2. PRODUCTS

2.1 CABINET WORK HARDWARE
Refer to SELECTIONS for product selection.

Components

2.2 FIXINGS
Provide matching fixings, including screws, clips, bolts and brackets for hardware supplied.

3. EXECUTION

Conditions

3.1 RETAIN
Retain hardware in the manufacturer's original packaging. Ensure that units are complete with fixings and installation instructions. Label each unit separately with its hardware number and door/window number to match the submitted and approved schedule.

3.2 PACKAGE
Package required hardware units in clear plastic and label each package with its hardware and door/window number and location to match the drawings and the submitted and approved schedule. Place packages in cartons selected for "level", "location", and/or "sector" and label the packages and the cartons similarly.

3.3 STORE
Store hardware packages in a shelved, dry and securely locked area. Provide supervision when the secure area is unlocked and packages and cartons are being distributed; signing off each package from the schedule as released.

Installation

3.4 INSPECTION
Before starting the hardware installation, check frames, doors, sashes and adjacent finish es are ready for the proper installation of the hardware.

3.5 LOCATE
Locate hardware units at heights and/or locations shown on the drawings, or as required t o comply with relevant Codes and Standards. Before proceeding, confirm any dimension not shown or known.

3.6 CUTTING AND FITTING
Carry out cutting and fitting of the substrate necessary for installing any hardware unit bef ore painting or finishing of that surface. Remove hardware when required for painting, pla cing it in the packaging or carton originally supplied and returning it to the secure store un til ready for re-installation.

3.7 INSTALL HARDWARE
Install each hardware unit in accordance with the hardware manufacturer's requirements using templates and tools supplied or recommended by them. Set units level, plumb and true to line and required location, with all moving parts and actions freely and easily opera ting. Do not make any modifications to supplied units.

Completion

3.8 ADJUST
Adjust and check each operating hardware unit for correct and smooth functioning. Repla ce those units that cannot be adjusted if they do not function correctly. Clean units and a djoining surfaces upon completing their installation. Only use lubricant if and when recom mended by the hardware manufacturer/supplier.

3.9 REPLACE
Replace damaged or marked elements.

3.10 LEAVE
Leave work with parts fully and freely working and to the standard required by following pr ocedures.

3.11 REMOVE
Remove debris, unused materials and elements from the site.

3.12 PROTECT
Protect hardware units from damage or marking.

3.13 FINAL ADJUSTMENT
Where hardware is installed more than a month prior to project completion, return and ma ke a final check and adjustment of hardware units to ensure they are operating correctly, f itted properly and are undamaged.

4. SELECTIONS

4.1 REFER TO HARDWARE SCHEDULE IN DRAWINGS.

6411J JACOBSEN VINYL SURFACING

1. GENERAL

This section relates to the supply and installation of Jacobsen vinyl surfacing complete wit h skirtings, nosings, trims and edgings and including static control sheet to floors.
It includes:
- PVC sheet for Accessible WC area

Documents

1.2 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following docume nts are specifically referred to in this section:

NZS/AS 1884	Floor coverings - Resilient sheet and tiles - Installation practices
AS/NZS 3661.1	Slip resistance of pedestrian surfaces - Requirements
IEC 61340.4.1	Electrostatics - Part 4.1: Standard test methods for specific application s - Electrical resistance of floor coverings and installed floors
EN 1081	Resilient Floor Coverings - Determination of the Electrical Resistance
BRANZ BU 330	Thin flooring materials - 2 Preparation and laying

1.3 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and Jacobsen Ltd documents relating to this part of the work:

Manufacturer/supplier contact details

Company:	Jacobsen
Web:	www.jacobsens.co.nz
Telephone:	0-9-574 0640 Auckland
	0-4-495 4300 Wellington
	0-3-366 4153 Christchurch

Warranties

1.4 WARRANTY - MANUFACTURER/SUPPLIER
Provide a material manufacturer/supplier warranty:
5 years: Materials

- Provide this warranty on the standard form in the general section 1237WA WARRANTY AGREEMENT.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

1.5 WARRANTY - INSTALLER/APPLICATOR
Provide an installer/applicator warranty:
1 year: Execution

- Provide this warranty on the standard form in the general section 1237WA WARRANTY AGREEMENT.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Requirements

1.6 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and pr oducts.

1.7 QUALIFICATIONS
Layers to be experienced competent workers, familiar with the materials and the techniqu es specified.

1.8 SAMPLES
Submit on request samples of sheet, tile and accessories offered sufficient to show the pa ttern and the range of colour finish.

Performance

1.9 SLIP RESISTANCE
Sheet and tiles when in place on a level access route to have a mean coefficient of frictio n (μ) not less than 0.4 when tested wet in accordance with AS/NZS 3661.1.

Sheet and tiles when in place on a sloping access route to have a coefficient of friction (μ) not less than $\mu = 0.4 + 0.0125S$, where S is the slope of the walking surface expressed as a percentage.

1.10 PROVIDE CERTIFICATES
Provide certificates and any other evidence that the sheet and tiles will comply with the st andard of performance specified.

1.11 TEST
Test static control flooring to IEC 61340.4.1 or EN 1081 and provide a certificate of compli ance.

2. PRODUCTS

Materials

2.1 VINYL SHEET
Tarkett, with factory applied PUR (polyurethane) to ensure a low maintenance system req uiring no sealers or polish.

2.2 COVINGS
Form commercial coving using pencil cove method, with butterfly mitres to external and in ternal corners. Form domestic coving using either pencil cove or fillet cove method.

2.6 VINYL SKIRTING
Cove based skirting. Refer to SELECTIONS for height and colour.

2.7 STAIR NOSINGS
Tredsafe stair nosing with Diamondtred Safety Insert.

2.8 TRIMS AND EDGING
Black 2.0mm bevel edge strip.

2.9 BRASS BARS
Jacobsen's 40mm wide solid brass bar of varying profiles, to cover height transitions of b etween 4mm and 18mm.

2.10 COVE CAPPING
Jacobsen PVC top cap to top of coved vinyl.

2.11 WALL AND FLOOR VINYL JOINING STRIP
Jacobsen white PVC floor to wall finishing strip.

Accessories

2.12 ADHESIVE
UZIN KE2000S or Jacobsen ProBond acrylic floor and wall adhesive.

2.13 PRIMER AND SEALER
To the adhesive manufacturer's requirements for the particular substrate.

2.14 FLOOR LEVELLING COMPOUND
Roberts floor levelling compound.

2.15 THERMOWELDING
Manufacturer supplied colour matched weld rod using the Tarkett weld nozzle.

3. EXECUTION

Conditions

3.1 GENERALLY
To manufacturer's requirements and NZS/AS 1884.

3.2 STORAGE
Accept rolls of sheet, packages of tiles and accessories undamaged and dry. Store rolls upright with other material on level surfaces in non-traffic, non-work areas that are enclos ed, clean and dry.

3.3 HANDLING
Avoid distortion, stretching, marking and damage to edges while shifting unrolling and ha ndling sheet, tiles and accessories. Do not use damaged material.

3.4 PREPARATION
Check that each colour supplied is from the same batch. Follow the vinyl manufacturer's requirements for preparatory conditioning of rolls and working temperatures and condition s before, during and after laying the selected vinyl. Protect work from solar heat gain and switch off under-floor heating during and for 48 hours either side of the work period.

3.5 DO NOT START
Do not start work before the building is enclosed, wet work is complete, doors are hung a nd lockable, finishes and trim complete and good lighting is available.

3.6 INSPECT
Inspect the substrate to ensure it is a suitable finish

3.7 PROTECTION
Protect adjoining work surfaces and finishes during the vinyl installation.

3.8 LAYING GENERALLY
Carry out the whole of this work to NZS/AS 1884, BRANZ BU 330 and the flooring manuf acturer's requirements.

3.9 TECHNIQUE
Before beginning the installation confirm the proposed layout of material, location of seam s and other visual considerations of the finished work.

Application - substrate preparation

3.10 PREPARING NEW CONCRETE
Clear substrate of debris, clean off surface contamination and carry out surface repairs us ing Roberts levelling compound. Carefully feather out at perimeters of repaired areas. Gr ind level, then vacuum to remove dust. Check moisture content to NZS/AS 1884, Append ix A and do not commence laying vinyl until readings for the whole area show 75% relativ e humidity or less.

3.13 APPLYING PRIMER OR SEALER FOR VINYL SHEET
Prime and/or seal porous plaster, concrete and timber substrates to the adhesive manufa cturer's requirements.

Application - laying floors

3.14 APPLICATION OF ADHESIVE
Apply UZIN KE2000S or Jacobsen ProBond at the required spread rate, without leaving tr owel marks after setting. Follow requirements for open time, taking note of the substrate porosity, ambient temperature and relative humidity. Remove excess adhesive as the wo rk proceeds using required techniques.

3.15 LAYING FLOOR SHEET
Roll out, cut, leave to condition and install sheet vinyl to Tarkett's recommended installati on procedure, ensuring there are no air bubbles or twisting, the seams are kept clear of a dhesive and immediately the sheet is adhered it is rolled with a 68 kg roller.

3.16 THERMOWELDING
Machine groove and thermoweld seams in designated areas, using the Tarkett weld nozzl e, heating the sheet and weld rod to a sufficient temperature to melt and fuse them togeth er in a single mass. Trim the weld to leave a smooth, flush surface with the sheet.

3.18 CROSS JOINS
Plan and allow cuts to avoid cross joins. Obtain written approval before proceeding if cro ss joins are unavoidable. Cross joins are not acceptable in wet areas.

3.19 COVING VINYL
Pencil cove flooring to the specified height and finish off as detailed.

3.20 COMPLETE MITRES
Perform butterfly method to internal and external mitres, allowing to thermoweld mitres.

3.21 VINYL TO STAIRCASES
Fit selected nosing to each tread and at the top of each stair flight, in accordance with the nosing manufacturer's requirements. Lay pre-cut vinyl sheets to each tread and riser, pe ncil coved at the rear of each tread.

3.22 FIT VINYL EDGING
Fit tapered vinyl edging to borders, except where abutting carpet.

Application - general

3.28 FIT VINYL SKIRTINGS
Fit skirtings in accordance with Tarkett's required installation procedures.

3.29 INSTALLING ACCESSORIES
Scribe fit, adhere or otherwise fix true to line and face to the sheet manufacturer's require ments for each particular location.

Completion

3.30 REPLACE
Replace damaged or marked elements.

3.31 CLEAN COMMERCIAL VINYL FLOORING
Obtain a copy of the Tarkett cleaning instructions and carry out initial clean to those instru ctions.

3.32 REMOVE
Remove debris, unused materials and elements from the site.

3.33 PROTECT
Protect completed work from damage for the period between completion of laying and co mpletion of the contract works, or until acceptance/sign-off by ~.

3.34 LEAVE
Leave work to the standard required by following procedures.

4. SELECTIONS
For further details on selections go to www.jacobsens.co.nz.
Substitutions are not permitted to the following, unless stated otherwise.

4.1 VINYL SHEET NON_SLIP TO SHOWER AREA

Product:	Jacobsen Tarkett Granit Multisafe
Colour/number:	3476383
Thickness:	2mm
Seam welding:	Thermal

4.1 VINYL SHEET TO WC AREA

Product:	Jacobsen Tarkett Granit
Colour/number:	383
Thickness:	2mm
Seam welding:	Thermal

4.2 COVINGS

Height:	150 mm
Type:	Pencil Coved

4.3 JACOBSEN ADHESIVE

Adhesive:	UZIN KE2000S or Jacobsen ProBond acrylic floor and wall adhesive.

4.4 FLOOR LEVELLING COMPOUND

Type:	As recommended by manufacturer

6700R RESENE PAINTING GENERAL

1. GENERAL

This section relates to the general matters related to **Resene** painting work.

1.1 RELATED WORK
Refer to 6721R RESENE PAINTING INTERIOR
Refer to 6711R RESENE PAINTING EXTERIOR

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:
MPNZA Master Painters New Zealand Association Inc.

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:
Health and Safety in Employment Act 1992
MPNZA Specification manual

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents related to this section are:

Resene One-Line specifications and product data manual (hard copy or at www.resene.co.nz)
Resene Putting your safety first

Copies of the above literature are available from **Resene**
Telephone: 0800 **RESENE** (0800 737 363)

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER
Warrant this work under normal conditions of use against failure referring to the **Resene** Promise of Quality in the **Resene** One-Line specifications and product data manual.

Requirements
This painting specification is written based on information available at the time of writing.

1.6 NO SUBSTITUTIONS
Substitutions are not permitted to any specified **Resene** coating system, or associated components and products. Do not combine paints from different manufacturers in a paint system.

If in the applicator's own expertise and judgement an amendment to this specification is required, or where a substrate preparation, or required painting system is not covered in this specification, this shall be brought to the attention of the contract administrator and any amendment agreed before work proceeds any further.

1.7 QUALIFICATIONS
Painters to be experienced competent workers, familiar with the materials and the techniques specified and with the **Resene** coating systems and be members of the Master Painters New Zealand Association Inc.

The applicator is to have the necessary skill, experience and equipment to undertake the work. The applicator remains responsible for ensuring proper completion of the work.

Painters to be selected from the **Resene** Eco.Decorator programme. The **Resene** Eco.De corator programme is designed to recognise a nationwide network of environmentally res ponsible, quality focussed painting contractors.
Refer to www.resene.co.nz/ecodecorator.htm for a list of Eco.Decorators in your area.

1.8 HEALTH AND SAFETY
Refer to and comply with the requirements of the Health and Safety in Employment Act 1 992 including the obligation to:

- Eliminate hazards and if hazards cannot be eliminated or isolated, then minimise the ha zards in this work by using the proper equipment and techniques as required by the MP NZA Painters hazard handbook and **Resene** Putting your safety first handbook.
- Supply protective clothing and equipment.
- Inform the contractor as well as the employees and others on site of those hazards and put in place procedures for dealing with emergencies.

1.9 SAFETY DATA SHEETS
Obtain from **Resene** (phone 0800 **RESENE**, or www.resene.co.nz) the safety data sheet f or each product used and comply with the required safety procedures. Keep sheets on si te.

Performance

1.10 RESENE INSPECTION
Permit representatives of **Resene** to inspect the work in progress and to take samples of t heir products from site if requested. **Resene** will take care when inspecting the work, but does not accept any responsibility for the proper completion of the work before or after su ch inspection.

1.11 INSPECTION OF THE WORK
Inspection of the whole of the work at each of the stages set out in SELECTIONS may be made. Agree on a programme that will facilitate such inspection, including notification wh en each part and stage of the work is ready for inspection.

2. PRODUCTS

Materials

2.1 MATERIALS GENERALLY
Do not combine paints from different manufacturer's in a paint system.

Use only Resene products (which are guaranteed for consistency and performance under AS/NZS ISO 9001 and APAS) prepared, mixed and applied as directed in the Resene On e-Line Specifications and Product Data Manual. This specification has been written using where practical and available both low/no VOC and Environmental Choice approved prod ucts.

2.2 EXPOSED DARK COLOURS
Darker colours in areas of high sun exposure place significant stress on the coating and s ubstrate. **Resene** 'CoolColour' technology reduces heat absorption of a wide range of col ours. Contact your local Resene Representative or visit www.resene.co.nz for more infor mation or visit www.resene.co.nz/coolcolour. View a list of Resene colours that can be m ade using Resene CoolColour technology at www.resene.co.nz/colourlibrary.

2.3 THINNERS/ADDITIVES
Use only if and when expressly directed by Resene for their particular product in a particu lar application. Always wear gloves when handling any solvents including turpentine as h armful chemicals may be absorbed into the body through the skin.

Accessories

2.4 ACCESSORIES
Contact your local **Resene ColorShop** for a full range of accessories and usage advice.

3. EXECUTION

Conditions

3.1 EXECUTION
To conform to required trade practice, which shall be deemed to include those methods, p ractices and techniques contained in the Master Painters New Zealand Association Inc. S pecification manual.

3.2 TREATED SURFACES
Where surfaces have been treated with preservatives or fire retardants, check with the tre atment manufacturer that coating materials are compatible with the treatment and do not i nhibit its performance. If they are not compatible, obtain instructions before proceeding.

3.3 ANCILLARY SURFACES
The descriptions of areas in schedules and elsewhere are of necessity simplified. Coat a ncillary exposed surfaces to match similar or adjacent materials or areas, except where a fair-faced natural finish is required or items are completely prefinished. In cases of doubt obtain written instructions before proceeding.

3.4 HARDWARE
Do not paint hinges or hardware that cannot be removed. Before commencing work caref ully remove hardware, fixtures and fittings, set aside where they cannot be damaged or m isplaced and replace on completion. Refer to SELECTIONS for hardware, fixtures and fitt ings for removal.

3.5 PROTECTION
Supply, lay and fix dropsheets, coverings and masking necessary to protect adjoining, fixt ures, fittings and spaces from paint drops, spots, spray and damage.

Application - preparatory work

3.6 SURFACE PREPARATION
Refer to the **Resene** One-Line specifications and product data manual for surface prepar ation sheets (or obtain them by phoning 0800 **RESENE**, or at www.resene.co.nz) listed in the materials systems schedule clauses. Carry out the preparatory work required by the m for each of the substrates.

3.7 SHARP EDGES, CRACKS AND HOLES
Remove and/or repair sharp edges, cracks and holes if present, as outlined in the preamb le of the **Resene** One-Line specifications and product data manual.

Elastomeric sealants, if used, should not be painted. The paint film will not match the flex ibility of the sealant and may severely limit its effectiveness.

3.8 REMEDIAL WORK
If any substrate or surface, that even with the preparation work called for in this section, c annot be brought up to a standard that will allow painting or clear finishing of the required standard then do not proceed until remedial work is carried out.

3.9 GAP FILLING
Make good cracks, holes, indented and damaged surfaces. Use suitable gap fillers to ma tch the surface being prepared. Any special priming requirements of the fillers must be s atisfied. Allow to dry or set before sanding back level with the surface. Prime or seal tim ber before using putty.

Exterior and wet areas: Use only Portland cement base or water-insoluble organic base g ap fillers.

3.10 OFF-SITE WORK
Carry out this work under cover in a suitable environment with suitable lighting. Store ite ms, both before and after coating, in a clean, dry area protected from the weather and me chanical damage, properly stacked and spaced to allow air circulation and to prevent stick ing.

3.11 PRIMING JOINERY
Pre-treat any cut surfaces of preservative treated timber before priming. Ensure L.O.S.P. treated joinery has dried sufficiently to lose solvent odour. Pre-treat bare timber with **Rese ne** TimberLock (see Data Sheet D48) to improve the durability of subsequent coats.

Liberally coat end grain, allow to soak in and then recoat.

3.13 CONCEALED METAL SURFACES
Apply primer to suit the coating system to surfaces which will be concealed when incorpor ated into the building.

3.16 PUTTY FRONTING
According to the putty manufacturer's instructions allow putty to set, then prime with **Rese ne** Wood Primer (see Data Sheet D40). Fully protect the putty by completing the **Resene** coating system as soon as it is sufficiently firm.

Application - generally

3.17 PAINTING GENERALLY
Comply with the **Resene** One-Line specifications and product data manual data sheets a nd the additional requirements of this work section.
Ensure large wall areas that require more than one container of paint per coat, have enou gh paint boxed (mixed) together to complete the final coat. This will not apply if a single f actory batch of paint, rather than shop tinted paint, is applied.

3.18 MIXING
Although generally supplied ready-mixed, thoroughly mix paints. Lift any settled pigment and ensure the paint is homogenous.

3.19 ENVIRONMENT
Defer painting of exterior surfaces until weather conditions are favourable - warm dry day s without frost or heavy dews. Avoid painting in direct sunlight any surfaces that absorb h eat excessively. As far as possible apply paint in the temperature range 15°C to 25°C. If temperatures fall outside the range of 10°C and 35°C do not paint unless paints with the necessary temperature tolerance have been specified. Do not apply solvent borne paint i f moisture is present on the surface.

3.20 SEQUENCE OF OPERATIONS
Painting work to generally follow the following sequences:
- Complete surface preparation before commencing painting.
- Apply primers, sealers, stains, undercoats, paints and clear coatings in the sequences l aid down by **Resene**.
- Allow the full drying time between coats laid down by **Resene**.
- Do not expose primers, undercoats and intermediate coats beyond **Resene's** recomme ndations before applying the next coat.
- Finish broad areas before painting trim.
- Ensure batch numbers of tins are matched for whole areas.
- Internally, paint ceilings before walls and walls before joinery, trim and other items.

3.21 APPLICATION
Select brush, roller, or pad and apply coatings to the requirements of **Resene** to obtain a smooth, even coating of the specified thickness, uniform gloss and colour.

3.22 LIGHTLY SAND
Lightly sand primers, sealers, undercoats and intermediate coats to remove dust pick-up, protruding fibres and coarse particles. Complete by removing dust immediately before ap plying the next coat.

3.23 DEFECTIVE WORK
Correct defective work immediately and recoat as required, following precisely the **Resen e** system being applied.

3.24 EACH COAT
Each coat of paint and the completed paint system to have the following qualities and pro perties:
- Uniform finish, colour, texture, sheen and hiding power and the proper number of coats applied.
- No blemishes such as runs, sags, crinkling, fat edges, entrained paint skins, hairs, dust, bare or starved patches, cracks, brush marks, ladder marks and blistering.
- Proper covering of corners, crannies, thin edges, cracks, end grain and other difficult pla ces of application.

Completion

3.25 CLEAN
Clean adjoining surfaces, glass and fittings of any paint contamination. Clean off glass in dicators at the completion of the building works. Clean glass inside and out to a shining fi nish. Use the Resene Washwise on site 'paint equipment clean-up water' reclamation sy stem to minimise the environmental impact of cleaning paint application tools.

3.26 LEAVE
Leave the whole of this work uniform in gloss and colour, of correct thickness, free from p ainting defects, clean and unmarked and to the standard required by following procedure s.

3.27 REMOVE
Remove dropsheets, coverings and masking to leave surrounding surfaces and areas cle an, tidy and undamaged. Remove debris, unused materials and elements from the site.

3.28 REPLACE
Replace hardware without damage to it or the adjoining surface and leave hardware prop erly fitted and in working order.

3.29 DISPOSAL OF PAINTS AND THINNERS
Note: The use and disposal of paint and thinners represents a significant environmental h azard.
Ensure all paint and thinners are disposed of in the following manner:
- When requested hand over part used paint containers to client for maintenance touch u ps.
- Recycle leftover paint at a Resene ColorShop as part of the Resene "Paintwise progra mme". Contact your local Resene ColorShop for details or view information online at w ww.resene.co.nz/paintwise.htm.
- Donate left over paint to local community groups.
- Solvent based paints, paint thinners, turpentine, mineral spirits and solvents require spe cial disposal procedures. Do not pour down sewer or storm water drains, sinks or into t he ground. If they cannot be recycled they must be disposed of in a refuse dump licens ed to take toxic waste.

3.30 MAINTENANCE
Good maintenance of coating systems involves a routine of regular cleaning as well as re gular inspections. Regular inspections of the coating systems are recommended to identi fy breakdown, accidental damage to or undesirable deterioration of the paint.
Refer the Resene Caring for your paint finish brochure and the Resene website, www.res ene.co.nz/comn/services/maintenance.htm.

4. SELECTIONS

4.1 SELECTIONS
Refer to 6711R RESENE PAINTING EXTERIOR and 6721R RESENE PAINTING INTERI OR for selections.

6711R RESENE PAINTING EXTERIOR

1. GENERAL

This section relates to the surface preparation, painting and clear finishing of new and exi sting exterior substrates using **Resene** architectural and decorative coating systems.

1.1 RELATED WORK
Refer to 6700R RESENE PAINTING GENERAL for general matters related to painting wo rk.
Refer to 6721R RESENE PAINTING INTERIOR for interior paint systems.
Refer to 6721RE RESENE ENVIRONMENTAL PAINTING INTERIOR for interior paint sy stems.

2. PRODUCTS

Materials

2.1 PAINT TYPES GENERALLY/ THINNERS AND ADDITIVES
Refer to 6700R RESENE PAINTING GENERAL for product clauses.

3. EXECUTION

Conditions

3.1 EXECUTION
Refer to 6700R RESENE PAINTING GENERAL for execution clauses.

4. SELECTIONS

Substitutions are not permitted to the following, unless stated otherwise.

4.1 HARDWARE
Hardware for removal: As necessary

Paint system schedules

4.2 EXTERIOR TIMBER JOINERY

Description:	**Exterior timber joinery, waterborne gloss**
System:	**Resene** One-Line Spec. No. 3e 1.1 (EC)
Surface prep:	D82; and **Resene** TimberLock D48NEC, solventborne preserver/condi tioner
1st coat:	For normal recommended system - **Resene** Quick Dry D45, waterborn e primer/undercoat; or For timber that stains - **Resene** Wood Primer D40NEC, solventborne primer
2nd coat:	**Resene** Enamacryl D309, waterborne gloss enamel
3rd coat:	**Resene** Enamacryl D309, waterborne gloss enamel

4.3 CONCRETE WATERPROOFING MEMBRANES

Description:	**Waterproofing membranes, waterborne low sheen**
System:	**Resene** One-Line Spec. No. 17e 1.4 (EC)
Surface prep:	D83 For thin plaster - **Resene** Limelock D809, waterborne cure/seal
1st coat:	For sound cementitious surfaces - **Resene** Concrete Primer D405, wa terborne primer; or For powdery surfaces - **Resene** Sureseal D42NEC, solventborne seal er; or

	Self priming - **Resene** X-200 D62, waterborne low sheen
2nd coat:	**Resene** X-200 D62, waterborne low sheen
3rd coat:	**Resene** X-200 D62, waterborne low sheen
4th coat:	**Resene** Multishield+ D54a, waterborne glaze (optional)

6721R RESENE PAINTING INTERIOR

1. GENERAL

This section relates to the surface preparation, painting and clear finishing of new and exi sting interior substrates using **Resene** architectural and decorative coating systems.

1.1 RELATED WORK
Refer to 6700R RESENE PAINTING GENERAL for general matters related to painting wo rk.
Refer to 6711R RESENE PAINTING EXTERIOR for exterior paint systems.
Refer to 6711RE RESENE ENVIRONMENTAL PAINTING EXTERIOR for exterior paint s ystems.

2. PRODUCTS

Materials

2.1 PAINT TYPES GENERALLY/ THINNERS AND ADDITIVES
Refer to 6700R RESENE PAINTING GENERAL for product clauses.

3. EXECUTION

Conditions

3.1 EXECUTION
Refer to 6700R RESENE PAINTING GENERAL for execution clauses.

4. SELECTIONS

Substitutions are not permitted to the following, unless stated otherwise.

4.4 HARDWARE
Hardware for removal: Remove as necessary

Paint system schedules

Resene interior paint systems

4.6 INTERIOR TIMBER

Description:	**Interior timber, waterborne semi-gloss**
System:	**Resene** One-Line Spec. No. 2i 1.2 (EC)
Surface prep:	D82; and **Resene** TimberLock D48NEC, solventborne preserver/condi tioner
1st coat:	For normal recommended system - **Resene** Quick Dry D45, waterborn e primer/undercoat; or For timber that stains - **Resene** Wood Primer D40NEC, solventborne primer; or For hardboard only - **Resene** Sureseal D42NEC, solventborne sealer; or For painting over varnish - **Resene** Waterborne Smooth Surface Seal er D47a, waterborne sealer
2nd coat:	**Resene** Lustacryl D310, waterborne semi-gloss enamel
3rd coat:	**Resene** Lustacryl D310, waterborne semi-gloss enamel

4.9 INTERIOR PAPER FACED PLASTER/FIBROUS PLASTER

Description:	**Interior paperfaced plaster/solid plaster/fibrous plaster, waterborne low sheen**
System:	**Resene** One-Line Spec. No. 15i 1.4 SC Level 5 (EC)
Surface prep:	D84; D85; D87; **Resene** Broadwall Surface Prep & Seal D807, waterborne prep
1st coat (if reqd):	For wet area, stained, porous or powdery areas - **Resene** Sureseal D 42NEC, solventborne sealer
2nd coat:	**Resene** SpaceCote Low Sheen D311, waterborne low sheen enamel
3rd coat:	**Resene** SpaceCote Low Sheen D311, waterborne low sheen enamel

For Level 4 system - **Resene** One-Line Spec No. 15i 1.4 K L 4 (EC)
Remove **Resene** Broadwall Surface Prep & Seal from Surface prep and add 1st coat: **Resene** Broadwall Waterborne Wallboard Sealer D403, waterborne sealer

7411D DIMOND RAINWATER SPOUTING SYSTEMS

1. GENERAL

This section relates to Dimond rainwater disposal systems including spouting and downpipes, in metal.

1.1 RELATED SECTIONS
Refer to ~ for ~

1.2 ABBREVIATIONS
The following abbreviations are used throughout this part of the specification:

BMT	Base metal thickness
NZMRM	New Zealand Metal Roofing Manufacturers Inc

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZMRM CoP	NZ metal roof and wall cladding Code of Practice

Documents listed above and cited in the clauses that follow are part of this specification. However this specification takes precedence in the event of it being at variance with the cited document.

1.4 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are:
Dimond, Roofing and Cladding Systems Design Manual, (web based Manual with dated update pages)

Copies of the above literature are available from:
Web: www.dimond.co.nz

Warranties

1.5 MANUFACTURER'S WARRANTY
Warrant this work under normal environmental and use conditions against:
Failure of coating adhesion: 5 year manufacturer's standard warranty
Weatherproofing by material penetration: 5 year manufacturer's standard warranty
Weatherproofing by substandard workmanship: 3 years
From: Date of completion of installation

Refer to the general section 1237 WARRANTIES for details of when completed warranty must be submitted.

Requirements

1.6 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and products.

1.7 QUALIFICATIONS
Installers to be experienced competent gutter installers, familiar with the **Dimond** materials and the techniques specified.

1.8 MAINTENANCE INSTRUCTIONS
Provide one bound copy of all relevant **Dimond** maintenance information on completion of the roofing work.

Performance

1.9 TEST
Test the completed rainwater disposal system with water to ensure spoutings are laid to c orrect falls, that both spouting and downpipes are unobstructed and that no ponding occu rs in spoutings.

2. PRODUCTS

Materials

2.1 SPOUTING
Complete with matching brackets to suit the spouting and screws. Refer to SELECTION S for type.

2.2 DOWNPIPES
Complete with stand-off brackets, galvanized screw fixed. Refer to SELECTIONS for typ e.

Components

2.3 DROPPERS
Steel or plastic droppers, sized to fit inside the downpipe.

2.4 DOMES
Wire mesh in round form with legs to clip inside the outlet opening to the downpipe.

2.5 SPOUTING MESH
Flexible plastic mesh fitted into the spouting to the spouting mesh manufacturer's require ments.

3. EXECUTION

Conditions

3.1 HANDLE AND STORE
Handle and store downpipes, spouting and accessories to avoid damage. Store on site u nder cover, on a clean level area, stacked to eliminate movement and away from work in progress. Avoid exposure to sunlight if strippable film is still on the product.

3.2 SUBSTRATE
Check that fascia, barges or cladding are level and true to line and face and will allow wor k of the required standard without distortion to the product alignment. Do not proceed unt il they are up to standard.

3.3 THERMAL MOVEMENT
Make adequate provision in the fixing and jointing of the spouting for thermal movement i n the length of the spouting. Provide an expansion joint in spouting over 12 metres in len gth for steel gutter.

3.4 CORROSION
Separate metals subject to electrolytic action from each other and from treated timber, co ncrete and other lime substances by space, painting of surfaces, taping, or separator strip s.

Check compatibility of metals used for rainwater goods, against the materials being used for roofing and flashings.

Application - metal

3.5 INSTALL METAL SPOUTING
Establish minimum falls necessary (minimum 1:500) to outlets to prevent ponding and scr ew fix brackets true-to-line at 900mm centres maximum or 600mm centres maximum whe

n using profile option Box 300. In areas where snow fall is possible and or high wind area s, the centres should be reduced to 450mm. Lap spouting joints in direction of flow, a min imum of 40mm to seal between and over the top of joint and seal with silicone sealant an d fix with rivets. Ensure the joint is fixed over its full girth. Cut out neatly for and fit the pr e-formed downpipe dropper and rivet and seal around the joint. All installation to **Dimond** details and NZMRM CoP NZ metal roof and wall cladding Code of Practice recommendati ons.

3.6 INSTALL METAL DOWNPIPES
Form downpipes complete with cast zinc 115 degree angle bends as needed with all joint s lapped and silicone sealed and fixed with 2-4mm diameter aluminium blind rivets. Galv anize screw fix with galvanized steel pipe clips to rigidly stand 40mm off the wall plumb a nd discharging into stormwater gully or inlet pipe. All installation to **Dimond** details and N ZMRM CoP NZ metal roof and wall cladding Code of Practice recommendations.

3.7 INSTALL PROTECTION
Fit wire mesh domes to downpipe outlets and plastic mesh to spouting to the spouting ma nufacturer's requirements.

Completion

3.8 REPLACE
Replace damaged or marked elements.

3.9 LEAVE
Leave the whole of this work discharging completely and freely into the stormwater syste m and free of all debris. Leave work to the standard required by following procedures.

3.10 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS
Substitutions are not permitted to the following, unless stated otherwise.

4.1 DIMOND SPOUTING

Profile:	Dimond 175
Size:	175x175
Base material:	Zinc alloy
BMT:	0.55mm
Coating system:	Colorsteel Maxx
Dimond colour:	TBA

4.2 DIMOND DOWNPIPES

Profile:	circular
Size:	80mm Diam
Base material:	Zinc alloy
BMT:	0.55mm
Coating system:	Colorsteel Maxx
Dimond colour:	TBA

4.4 SPOUTING MESH

Brand:	Nylex Gutterguard

SPECIFICATION

of work to be done and materials to be used in carrying out the works shown on the accompanying drawings

BNZ Waipukurau

63
Ruataniwha Street
Waipukurau

BNZ Branch Properties Ltd

Job Number:	4-M0633.00
Date:	**November 2014 R1**
Status:	CONSTRUCTION

1012 TABLE OF CONTENTS (R1)

APPENDICIES:

4612MI METRO GLASSTECH INTERIOR GLAZING (R1)

1. GENERAL

This section relates to the supply and fixing of Metro GlassTech products for interior spaces including:
- partition glazing, framed and frameless
- doors, framed and frameless
- frameless shower and bath screens
- splashbacks / wall linings
- balustrade/barrier systems
- counter tops / furniture
- floors, stair treads and landings
- mirrors and mirror frames

1.1 RELATED WORK
Refer to 5231 for Interior doors and windows.

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

PVB	Polyvinyl Butyral
CIP	Cast in place

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC B1/AS1	Structure
NZBC F2/AS1	Hazardous building materials
NZBC F4/AS1	Safety from falling
AS/NZS 2208	Safety glazing materials in buildings
NZS 4223.1	Glazing in buildings - Glass selection and glazing
NZS 4223.3	Glazing in buildings - Human impact safety requirements
BRANZ BU 337	Protecting window glass from damage

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents relating to this part of the work:

Metro GlassTech Catalogue & Reference Guide - 6th edition

Copies of the above literature are available at

Company:	**Metro GlassTech**
Web:	www.metroglasstech.co.nz
Email:	info@metroglasstech.co.nz
Telephone:	0800 65 89 45

Warranties

1.5 MANUFACTURERS WARRANTY
Provide a material manufacturer/supplier warranty:

10 years:	For insulating glass units
10 years:	For laminated safety glass
10 years:	For toughened safety glass
10 years:	For screen printed glass

- Provide this warranty on the manufacturer/supplier standard form.
- Commence the warranty from the date of completion of this part of the contract work.

Refer to the general section for the required form of 1237WA WARRANTY AGREEMENT and details of when completed warranty must be submitted.

Requirements

1.6 SAMPLES
Submit samples of selected glass for review if required.

2. PRODUCTS

2.1 NO SUBSTITUTIONS
Substitutions are not permitted to any specified **Metro GlassTech**, products or systems.

Materials

2.2 LAMINATED GLASS
Safelite Grade A Safety Glass to AS/NZS 2208 with PVB or CIP resin interlayer.

2.2 TOUGHENED GLASS
Tempafloat Grade A Safety Glass to AS/NZS 2208.

Components, general

2.3 JOINTING, PUTTY AND SEALING MATERIALS
Ensure jointing, putty and sealing materials compatible with glass substrates. Confirm compatibility with laminated glass and coatings.

Components, aluminium glazing

2.4 GLAZING TAPE AND GASKETS
Single/double sided pressure sensitive self-adhesive low/medium/high density foam tapes/butyl tapes selected to suit the glazing detail to window manufacturers' requirements.

2.5 SETTING BLOCKS
Santoprene/Neoprene, 80-90 Shore A hardness, set at quarter points or to detail, to support the weight of glass panes.

3. EXECUTION

Conditions

3.1 GENERAL REQUIREMENTS
To NZS 4223.1, NZS 4223.3 and NZBC B1/AS1, 7.0 **Glazing**.

3.2 DELIVERY
Keep glass dry and clean during delivery and bring on to site when ready to glaze directly into place. Comply also with the storage requirements set out in BRANZ BU 337.

3.3 GLASS CONDITION
All glass to have undamaged edges and surfaces before glazing.

3.4 GLASS THICKNESS
If not specifically stated in the glazing schedule determine the minimum thickness of glass for each sheet as required by NZS 4223.1 and NZS 4223.3.
Determine the final glass thickness based on whether wind loading or human impact considerations govern.

3.5 REBATE DIMENSIONS
Provide rebates for glazing to the widths and depths necessary for each situation including minimum glass edge cover to NZS 4223.1, Section 4 Glazing.

Assembly

3.6 WORKING OF GLASS
All working of glass as required in NZS 4223.1.

3.7 EDGE WORK AND BEVELLING
Edgework other than a clean cut. Refer to SELECTIONS/drawings for type.

3.8 SURFACE TREATMENT
Refer to SELECTIONS/drawings for finish.

3.9 SURFACE CUTTING
Refer to SELECTIONS/drawings for finish.

Application aluminium

3.10 INSTALL GLASS TO ALUMINIUM FRAMES
Install glass to NZS 4223.1.
- Bead glaze to Section 4 Glazing.
- Channel glaze to Section 4 Glazing, and Section 5 for Framed, Unframed, and Partly Framed Glass Assemblies.

3.11 INSTALL SAFETY GLASS
To NZS 4223.3, as modified by NZBC F2/AS1 and NZBC B1/AS1, 7.0 **Glazing**.

Finishing

3.12 SAFETY
Indicate the presence of transparent glass for the construction period, with whiting, tape or signs compatible with the glass type. Indicators other than whiting must not be applied to the glass surface.

3.13 MANIFESTATIONS
To NZS 4223.3, clause 303.1 Manifestation (making glass visible).

Completion

3.14 TRADE CLEAN
Remove safety indicators and trade clean at completion of the building.

3.15 REPLACE
Replace damaged, cracked or marked glass damaged during glazing.

3.16 LEAVE
Leave work to the standard required by following procedures.

3.17 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS

For further details on selections go to www.metroglasstech.co.nz
Substitutions are not permitted to the following, unless stated otherwise.

Glass by type

4.1 PVB LAMINATED GLASS - DOOR VISION PANELS (NON-FIRE RATED)

Location:	Refer to Architectural drawings, A608-Fit-out_Window and Door Schedule.
Brand/type:	SAFELITE PVB
Interlayer:	0.38mm Standard
Thickness:	6.38 mm nominal overall

4.1 TOUGHENED GLASS – GLAZED PARTITIONS

Location:	Refer to Architectural drawings, A608-Fit-out_Window and Door Schedule.
Brand:	Tempafloat Toughened Safety Glass
Thickness:	10mm min thickness to all interior glass. Allow for thicker glass where the code requires.

4721A AUTEX QUIETSTUF® ACOUSTIC INSULATION (R1)

1. GENERAL

This section relates to Autex QuietStuf® polyester fibre insulation installed, laid, hung or fitted as acoustic insulation.

1.1 ABBREVIATIONS

The following abbreviations are relevant to this part of the specification:

STC	Sound Transmission Class
NRC	Noise Reduction Coefficient
IIC	Impact Insulation Class
Rw	Weighted sound reduction index
CAC	Ceiling Attenuation Class

Documents

1.2 DOCUMENTS REFERRED TO

Documents referred to in this section are:

NZBC G6/VM1	Airborne and impact sound
NZBC H1/AS1	Energy Efficiency
NZS 4218:2004	Energy Efficiency - Small building envelope
NZS 4243.1	Energy Efficiency - Large buildings - Building thermal envelope
NZS 4246	Energy Efficiency - Installing insulation in residential buildings
ISO 140	Acoustics Part 4: Field measurements of airborne sound insulation between rooms
NZECP 54	New Zealand Electrical Code of Practice for the Installation of Recessed Luminaires and Auxiliary Equipment

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS

Autex Insulation documents relating to work in this section are:

Autex Insulation Product Manual, including:
- Data sheet QuietStuf® ASB
- Autex Insulation - Acoustic Design Guide
- Installation Instructions - QuietStuf® ASB
- Autex Insulation Warranty Certificate

Copies of the above literature are available from Autex Insulation

Web:	www.autex.co.nz
Telephone:	0800 428 839

Autex Insulation documents are also available on EBOSS

Web:	www.eboss.co.nz

Warranties

1.4 WARRANTY - MANUFACTURERS

Manufacturer's warranty (durability) for Autex polyester acoustic insulation products under normal environmental and use conditions against failure.

Warranty (durability): 50 years

Provide this warranty on the manufacturer's standard form.

Requirements

1.5 NO SUBSTITUTIONS

This specification may relate to NZBC compliant systems and under the building consent

process substitutions are not permitted to any specified Autex **QuietStuf®** acoustic insulation, associated products, components or accessories.

1.6 QUALIFICATIONS
Work to be carried out by tradesmen experienced, competent and familiar with Autex Insulation materials and techniques specified.

1.7 COMPLIANCE SCHEDULES
Provide details of inspections, maintenance and reporting procedures required to demonstrate ongoing compliance with NZBC H1/AS1 and NZBC G6/VM1.

2. PRODUCTS

Materials

2.1 POLYESTER FIBRE ACOUSTIC BLANKET
Autex **QuietStuf® ASB** - 100% polyester fibres thermally bonded to form a flexible acoustic blanket. Refer to SELECTIONS for details.

2.2 POLYESTER FIBRE ACOUSTIC CEILING BAFFLE
Autex **QuietStuf® BaffleBlock®** - 100% polyester fibres thermally bonded to form a flexible blanket/roll for control of ceiling path sound transmission. Refer to SELECTIONS for details.

Components

2.3 TAPES
Proprietary plastic tape, stapled across framing to retain insulation in unlined wall and ceiling locations.

3. EXECUTION

Conditions

3.1 STORAGE
Accept materials undamaged and dry and store in a location that protects them from the weather and damage. Avoid distortion, stretching, puncturing and damage to edges of materials.

3.2 HANDLING
Avoid delamination or distortion of the rectangular form. Maintain full thickness unless compression is an installation system requirement.

3.3 INSPECTION
Before starting installation of **Autex QuietStuf®** blankets, pads and rolls, check that the location and framing are free from moisture, that the cavities are not interconnected and that any required mesh, building papers and vapour barriers are in place.

Application

3.4 INSTALL INSULATION GENERALLY
Lay, install, fit and fix to Autex Insulation requirements as detailed in the Installation Instructions and as per detail. Install in housing to NZS 4218 and NZS4246, and in large buildings to NZS4243.1. Do not cover vents and cut around all recessed light fittings and metal flues to the safety requirements of NZECP 54. Lift up electrical wires and lay the segments underneath.

3.5 FIT POLYESTER FIBRE ACOUSTIC PADS/BLANKET/ROLL - WALLS
After the wall lining is fixed to one side of the wall/partition, friction fit Autex **QuietStuf®** insulation segment / blanket in place to completely fill the whole of the cavities. Leave no gaps. Slightly oversize to retain friction fit, carefully tear by hand across blanket, fit to cavity. Maintain full thickness of acoustic insulation over whole installation and fix to unlined walls with plastic tape as necessary.

3.6 FIT POLYESTER FIBRE ACOUSTIC PADS/BLANKET/ROLL - CEILING OVERLAY
Lay **QuietStuf®** insulation over ceiling grid firmly butting edges and joins to ensure no gaps. Carefully tear across width for length and maintain full thickness of acoustic insulation over whole installation.

Completion

3.7 CLEAN UP
Clean up as the work proceeds, so no spare offcuts or any other matter or item remain behind claddings or linings.

3.8 LEAVE
Leave work to the standard required by following procedures.

3.9 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS
Substitutions are not permitted to the following, unless stated otherwise.

4.1 INSULATION ANCHORS, ACOUSTIC INSULATION PANELS
Distributor: Potter Interior Systems
Brand: CLIM® (or similar)

4.2 ADHESIVE, ACOUSTIC INSULATION PANELS
Distributor: CRC industries
Brand: ADOS F2 (or similar)

4.3 POLYESTER FIBRE ACOUSTIC INSULATION, INTERNAL PARTITIONS (METAL STUD)
Location: Refer to Architectural Drawings
Brand: Autex QuietStuf® ASB
Product: ASB 5, ASB 3
Thickness: 70
Partition STC: 46

4.4 POLYESTER FIBRE ACOUSTIC INSULATION, CEILING OVERLAY
Location: Refer to Architectural Drawings
Brand: Autex QuietStuf® ASB
Product: ASB 6
Thickness: 70
Partition STC: 46

4811S SIKA SEALANTS (R1)

1. GENERAL

This section relates to the selection of sealants and application methods for sealants nominated in other work sections.

Related work

1.1 RELATED SECTIONS
5113G GIB plasterboard linings
5174G GIB plasterboard impact resistant linings
5211 Potter aluminium internal partitions
5311A Acoustic USG Donn. suspended ceilings
5511 Joinery and cabinetry fixture

Documents

1.2 DOCUMENTS
Documents referred to in this section are:

ISO11600	Building construction - Jointing products - Classification and requirements for sealants

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS
Sika (NZ) Ltd product data sheets relating to work in this section are:

Sika Primer Table Sikaflex / Sikabond. Version no: 02/08
Sikaflex® AT-Facade. Version no: 03/08
Sikaflex® Construction. Version no: 05/11
Sikasil® Roofing and Plumbing. Version no: 06/10
Sikasil ® NG. Version no: 17/08/08
Sikasil ® RTV. Version no: 12/10
Sikaflex® 11FC. Version no: 08/99
Sikadur® 51. Version no: 03/99
Sikaflex® Tank Version no: 02/03
Sika® Firerate. Version no: 06/10
Sika® Firerate PU. Version no: 02/08
Sika® Fast Gaps. Version no: 05/11
Sika Boom® Expanding Foam. Version no: 20/03/09
Sika Boom®- FR. Version no: 06/07
Sika Showerbond. Version no: 06/08
SikaBond® T55 (J) Version no.08.05
SikaBond® T53 Version no.08.05
Sika® Primer MB Version no 08.05

Independent VOC test certificates for quantity of VOC in grams per litre in accordance with SCAQMD Rule 1168 to Green Star Office design V2 IEQ-13/ IEQ-03

Copies of the above literature are available from Sika (NZ) Ltd

Web:	www.sika.co.nz
Email:	info@nz.sika.com
Telephone:	0800 SIKA NZ, 0800 745 269
Facsimile:	0800 SIKA FAX, 0800 745 232

1.4 ABBREVIATIONS AND TERMS
The following abbreviations and terms are used throughout this part of the specification:

VOC	Volatile Organic Compound

Requirements

1.5 SEALANT SELECTION
Refer to the **Sika** (NZ) Ltd current Technical Data Sheet before commencing sealant installation. Ensure that the correct sealant has been selected for the intended application and substrates. Check that the joint design allows for movement and or substrate thermal expansion and contraction, and is within the sealants range of service.

1.6 SAMPLE JOINT
Produce a sample joint for substrates or coatings not detailed in Sika (NZ) Ltd current Technical Data Sheet. Upon full cure of the selected **Sika** sealant the test sample is to be used to assess sealant adhesion and compatibility with the substrate or coating. Following review and confirmation that work may proceed, the sample joint becomes the quality control standard for subsequent work of each type. Sample joints may be retained as part of the completed work.

1.7 QUALIFICATIONS
Sealant work, including preparation, to be carried out by competent and experienced sealant applicators, approved by **Sika**. Provide evidence of technical competence and experience for review before commencing work.

1.8 MANUFACTURER'S TECHNICAL SERVICES
Sika (NZ) Ltd provides local testing and research and development assistance for non standard applications. Use the research and development, and the technical information provided by **Sika** throughout the design, development, prototype testing and installation stages of sealant work.

Warranties

1.9 WARRANTY - MANUFACTURER/SUPPLIER
Provide **Sika** (NZ) Ltd warranty for:
~ years: For material

- Provide the warranty in the **Sika** form.
- Commence the warranty from the date of practical completion of the contract works.
- **Sika** (NZ) Ltd will warrant that Sika sealant products will perform in accordance with the information stated in **Sika** (NZ) Ltd current Technical Data Sheets.
- Refer to **Sika** (NZ) Ltd for further information on warranty.

2. PRODUCTS

Materials

Primers

2.1 SIKA CLEANER-205
Sika Cleaner-205, a transparent alkyl titanate in an alcohol solution, one component cleaner with adhesion promoters.

2.2 SIKA PRIMER-3N
Sika Primer-3N, transparent solvent based reactive epoxy resin compound, one component primer.

2.3 SIKA PRIMER MB
Sika Primer MB is a translucent blue 2 component epoxy moisture regulating coating designed specifically for use with SikaBond timber floor bonding systems.

Specialist building concrete floor sealants

2.4 SIKAFLEX®-11 FC
Sikaflex®-11 FC, a fast curing one component polyurethane based, flexible joint sealant and high strength adhesive. A non-slumping material that cures by reaction with atmospheric moisture to form a tough and resilient elastomer.

2.5 SIKADUR® 51
Sikadur® 51, a two component, joint sealing compound based on flexible epoxy resins. When mixed is a thixotropic paste with non slump properties.

2.6 SIKAFLEX® TANK
Sikaflex® Tank, a non sag one component polyurethane based, chemical resistant elastic joint sealant. Sikaflex® Tank, once cured forms permanently elastomeric material.

Acrylic sealants

2.7 FAST GAPS
Fast Gaps, a high performance, acrylic gap filler that cures quickly to form a permanently flexible seal with excellent primer-less adhesion to most building materials. The sealant is non staining and can be painted or papered over approximately one hour after application. Suitable as an acoustic sealant.

PU foams

2.8 SIKA® BOOM
Sika® Boom, a one component, high yield polyurethane based fast curing expanding foam applied with the Sika Boom-G Dispenser gun.

2.9 SIKA® BOOM-FR
Sika® Boom-FR, a one component, high yield, fire rated polyurethane foam applied with the Sika Boom-G Dispenser gun.

Adhesives

2.10 SIKA® SHOWERBOND
Sika® Showerbond, a one component solvent based, fast grab, gun grade adhesive, specifically formulated for bonding plastic shower linings to gypsum plasterboard or fibre cement wall linings, as well as timber.

2.11 SIKABOND® T53
SikaBond® T53, a one component polyurethane based adhesive specifically formulated to strip bond engineered timber flooring. SikaBond® T53 can be used in conjunction with SikaLayer 05 as part of the Sika AcouBond® acoustic timber flooring system

2.12 SIKABOND® T55
SikaBond® T55, a one component polyurethane based adhesive specifically formulated to full surface bond solid and engineered floors.

2.13 SIKABOND® NAILBOND® PREMIUM
SikaBond® Nailbond® Premium, a one component elastomeric polyurethane based adhesive specifically formulated as a general adhesive for internal bonding applications. Used to bond plasterboard, polystyrene, timber, fibre cement, concrete masonry and metals.

2.14 SIKABOND® NAILBOND® FAST
SikaBond® Nailbond® Fast, a one component high performance acrylic based adhesive specifically formulated as a general adhesive for internal bonding applications. Used to bond plasterboard, polystyrene, timber, fibre cement, concrete masonry and metals.

3. EXECUTION

Conditions

3.1 COMPATIBILITY
Ensure compatibility by using only **Sika** branded sealants with **Sika** supplied joint fillers, primers, backing rods, bond breaker tape and cleaning solutions.

3.2 NON SLUMP SEALANTS
Use only thixotropic sealants capable of supporting their own weight (non slump) in vertical applications.

3.3 SELF LEVELLING SEALANTS
Use only self levelling sealants in contained horizontal applications.

3.4 SUBSTRATE STAINING
Note that some silicon sealants can cause silicon oil staining on porous substrates such as concrete and masonry.

3.5 SEALANT PAINTABILITY
Ensure that a paintable sealant is selected when the sealant joint requires painting.
NOTE: This excludes silicon based sealants which are not paintable.

3.6 COLOURS
Refer to SELECTIONS for colour option/s. Where colour is not specified, choose sealant colours from the **Sika** standard/special colour ranges.

3.7 VISIT THE SITE
Arrange for the **Sika** representative to visit the site to examine the site conditions, to inspect the surfaces and joints and to discuss the installation procedures, before any sealing work proceeds.

Preparatory work

3.8 ENSURE
Ensure that joints to receive sealants are suitable for the proposed application. Ensure that surfaces are sound, dry, free from dust, dirt, scale, laitance, corrosion or other loose material, oil, grease, paint, release agents or other contaminants which may affect the bond, or the performance of the sealing material.

Ensure that joints and spaces receiving sealant are within the specified width to depth ratio in accordance with **Sika** sealant product data sheet. Ensure that the joint design allows for movement and/or substrate thermal expansion and contraction that are within the sealants range of service.

3.9 TEST SUBSTRATES
Test substrates for indications of staining or poor adhesion. If poor adhesion is evident from initial tests, consult **Sika** about the application of a suitable primer. Only use combinations of sealants and substrates for which favourable adhesion and compatibility have been confirmed.

Do not apply sealant to concrete or concrete block until concrete and/or mortar has cured.

3.10 CLEAN JOINTS
Clean joints as detailed in application instructions contained in **Sika** (NZ) Ltd product data sheet to achieve acceptable joint surfaces for the application of sealant. Protect adjacent surfaces from abrasion or other damage.

3.11 CLEAN METAL SURFACES
Clean metal surfaces with approved **Sika** (NZ) Ltd cleaners to remove any grease deposits.

3.12 GRIND CONCRETE SURFACES
Grind concrete surfaces to remove concrete laitance and other surface contaminates prior to applying Sika Primers

3.13 MASK
Mask adjacent surfaces alongside joints to prevent contamination. Mask off any surfaces which would be difficult to clean if smeared with sealant, or where excess sealant could not be neatly trimmed off or removed.

3.14 VENTILATION
Ensure adequate ventilation for sealant applicators during the preparation and application of sealant work.

Application

3.15 FINAL PREPARATION
Prepare joints in accordance with approved **Sika** (NZ) Ltd cleaning methods.

3.16 BACKING
Insert **Sika** PEF backing rod or bond breaker tape to avoid three sided adhesion. **Sika** PEF backing rod diameter is be 25% larger than the gap size. Use only blunt instruments to install backing rods to avoid puncturing or damage. Do not twist rods when installing. When using backup material do not leave gaps and do not reduce the depth of the sealant joint to less than the minimum required by Sika.

3.17 PRIMING
Use **Sika** supplied/recommended primers. Allow to cure for **Sika** recommended time (minimum and maximum). Refer to **Sika** for instructions if maximum cure time is exceeded before sealant is applied. Do not contaminate bond breakers with primer.

Allow primer to dry as recommended by the manufacturer. Do not prime more than can be completed in one day. Prevent contamination of the primed surfaces prior to applying sealant.

3.18 JOINT FILLING
Fill joint cavity with sealant in accordance with **Sika** requirements and quality control programmes. Use a pressure gun with a nozzle cut to suit the required joint width. Ensure sealant is deposited in a uniform, continuous bead, without gaps or air pockets and with clean, neat edges.

3.19 TOOLING
Tool sealant to form a smooth, flat bead, or a smooth convex fillet, with a profile as required by **Sika**. Complete tooling before the sealant surface starts to form a skin.

3.20 FINISHING
Remove masking immediately after tooling and before sealant surface starts to skin. Remove excess sealant from adjoining surfaces before the sealant has set, using the cleaning materials and methods required by **Sika**, leaving surfaces clean and the sealant runs undamaged.

3.21 SURROUNDING WORK
Leave surrounding surfaces in a neat, clean condition with no evidence of spill over.

Completion

3.22 CLEAN UP
Clean up as the work proceeds.

3.23 LEAVE
Leave work to the standard required by following procedures.

3.24 REMOVE
Remove masking tape, used packaging and waste products from the site.

4. SELECTIONS

4.1 WALLS/ CEILINGS - SEALANTS

Substrate:	Plasterboard - gap filling
Primer:	n/a
Product:	Sika Fast Gaps
Application area:	Board joints
Location:	Refer to Architectural drawings

Sika interior wall and ceiling bonding

4.4 WALLS/ CEILINGS - BONDING

Substrate:	Plasterboard, timber, concrete
Product:	Sika® NailBond® Premium (VOC content 67 grams/Litre vs. 70 grams /Litre limit for general construction adhesives) or Sika® NailBond® Fast (VOC content 28 grams/Litre vs. 70 grams /Litre limit for general construction adhesives)
Application area:	Wall and ceiling board to frame bonding
Location:	Internal, Refer to Architectural drawings

Sika interior sealants - wet areas

4.5 BATHROOM/ KITCHEN FLOORS - PERIMETER JOINTS
Substrate: Concrete, ceramic
Primer: Sika Primer-3N
Product: Sikaflex® 11FC (VOC content 62 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area: cuts and construction joints, horizontal and vertical
Location: Internal, kitchen, wc

4.6 BATHROOM/ KITCHEN WALLS

Substrate:	Concrete, ceramic, wallboard
Primer:	n/a
Product:	Sikasil ® RTV (VOC content 22 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area:	Panel joints and seams
Location:	Kitchen

4.7 BATHROOM/ KITCHEN CEILINGS

Substrate:	Concrete, ceramic, plasterboard, MDF, glass
Primer:	n/a
Product:	Sikasil ® RTV (VOC content 22 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area:	Panel joints and seams
Location:	Kitchen

4.8 PLUMBING

Substrate:	Metal, plastic
Primer:	n/a
Product:	Sikasil® Roofing and Plumbing (VOC content 35 grams/Litre vs. 250 grams /Litre limit for architectural sealants)
Application area:	Joints and seams
Location:	Kitchen

5113G GIB® PLASTERBOARD LININGS (R1)

1. GENERAL

This section relates to the supply, fixing and jointing of GIB® plasterboard linings and accessories to timber and steel framed walls and ceilings to form:
- standard systems
- superior finish quality systems
- wet area systems

Reads in conjunction with the Architectural documents

1.1 ABBREVIATIONS

The following abbreviations are used throughout this part of the specification:

AWCINZ	Association of Wall and Ceiling Industries New Zealand

Documents

1.2 DOCUMENTS REFERRED TO

Documents referred to in this section are:

NZBC E2/AS1	External moisture
AS 1397	Steel sheet and strip - hot-dipped, zinc-coated, or aluminium/zinc-coated
AS/NZS 2588	Gypsum plasterboard
AS/NZS 2589	Gypsum linings - Application and finishing
NZS 3604	Timber framed buildings
AS/NZS 4600	Cold-formed steel structures

BRANZ technical paper P21: A wall bracing test and evaluation procedure

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents which refer to work in this section are:

GIB® Site Guide (January 2010)
GIB® Noise Control Systems (March 2006)
GIB Aqualine® Wet Area Systems (March 2007)
GIB® Goldline™ Platinum Tape-on Trims
GIB® UltraFlex high impact corner mould
BRANZ Appraisal 427 - GIB Aqualine® Wet Area Systems
BRANZ Appraisal 97/008 - Standard 10 and 13mm GIB® plasterboard

Copies of the above literature are available at

Web:	www.gib.co.nz
Telephone:	0800 100 442

Requirements

1.4 NO SUBSTITUTIONS

Substitutions are not permitted to any specified GIB® systems, GIB® system components, GIB® plasterboard, associated GIB® products or GIB® accessories.

1.5 INSTALLER WORK SKILLS AND QUALIFICATIONS

GIB® plasterboard fixers and plasterers to be experienced competent workers, familiar with GIB® plasterboard lining systems installation and finishing techniques. Submit evidence of experience on request. For example:
- National Certificate of Interior Systems; or
- Certified Business member of AWCINZ.

Performance

1.6 INSPECTIONS AND ACCEPTANCE
Allow for inspection of the finished plasterboard surface:
- before applying sealer and
- before applying finish coatings or decorative papers,
so that after assessment of the type and/or angle of illumination and its effect on the completed decorative treatment, group approval and acceptance of the surface can be given.

2. PRODUCTS

Materials

2.1 GIB® PLASTERBOARD
Gypsum plaster core encased in a face and backing paper formed for standard and water resistance use to AS/NZS 2588. Refer to SELECTIONS for location, type, thickness and finish.
GIB® Standard plasterboard
GIB Fyreline® fire resistant plasterboard
GIB Toughline®

Components

2.2 SCREWS
GIB® Grabber® drywall screws.

2.3 NAILS
GIB® Nails (gold passivated).
Size: 30mm, 40mm

2.4 METAL ANGLE TRIMS
GIB® galvanized steel slim angle trims.

2.5 TAPE ON TRIMS AND EDGES
GIB® Goldline™ tape-on trims
GIB® UltraFlex high impact corner mould.

Accessories

Accessories

2.6 ADHESIVE
Timber frame and/or steel frame:
GIBFix® One ultra low VOC water based wallboard adhesive
GIBFix® All-Bond solvent based wallboard adhesive

2.7 JOINTING COMPOUND

Bedding compound:	GIB Tradeset®, GIB Lite Blue®, GIB MaxSet®, GIB ProMix® All Purpose, GIB Plus 4®
Finishing compound:	GIB ProMix® All Purpose, GIB® Trade Finish®, GIB® Trade Finish® Lite, GIB ProMix® Lite, GIB® U-Mix, GIB Plus 4®
Cove:	GIB-Cove® Bond

2.8 JOINTING TAPE
GIB® paper jointing tape.

2.9 ACOUSTIC SEALANT
GIB Soundseal® ultra low VOC water based highly flexible acoustic sealant.

2.10 GAP FILLER
GIB® Gap Filler ultra low VOC multi-purpose acrylic flexible filler

3. EXECUTION

Conditions

3.1 STORAGE
Store GIB® plasterboard sheets and accessories in dry conditions stored indoors out of direct sunlight in neat flat stacks on either an impervious plastic sheet or clear of the floor with no sagging and avoiding damage to ends, edges and surfaces. Reject damaged material. Refer to GIB® Site Guide.

3.2 LEVELS OF PLASTERBOARD FINISH
Provide the selected plasterboard surfaces to the pre decorative levels of finish as noted in documentation.

3.3 CONFIRM LEVELS OF PLASTERBOARD FINISH ACCEPTANCE
Before commencing work, agree in writing upon the surface finish assessment procedure towards ensuring that the quality of finish expectations are reasonable and are subsequently obtained and acceptable.

Do not apply decorative treatment until it is agreed in writing by the contractor, subcontractors and decorator that the specified plasterboard Level of Finish has been achieved.

3.4 SUBSTRATE
Do not commence work until the substrate is plumb, level and to the standard required by the sheet manufacturer's requirements. Refer to GIB® Site Guide.

3.5 TIMBER FRAME MOISTURE CONTENT
Maximum allowable moisture content to AS/NZS 2589 for timber framing at lining: 18% or less for plasterboard linings. Refer to NZBC E2/AS1 and GIB® Site Guide.

3.6 METAL FRAMING
Metal framing, to which gypsum lining is fixed, shall comply with AS 1397or AS/NZS 4600, as applicable. Where adhesion of gypsum linings is required, surfaces shall be free of oil, grease, dust and other foreign materials. Refer to the metal framing manufacturers specifications where high density gypsum linings (>800 kg/m^3) such as GIB® Braceline and GIB® Noiseline are specified for fixing to light gauge steel framing.

3.7 PROTECTION
Protect surfaces; cabinetwork, fittings, equipment and finishes already in place from the possibility of water staining and stopping damage. Refer to GIB® Site Guide.

Application

3.8 LINING WALLS AND CEILINGS GENERALLY
Form to GIB® Site Guide. Ensure bulk insulation thickness shall not exceed that of the wall framing.

3.9 BOARD ORIENTATION
Minimise joints by careful sheet layout using the largest sheet sizes possible, and generally fixing horizontally. Where part sheets are required for various stud heights they should be positioned so the cut sheet is as low as possible to keep joints below eye level.

3.10 FORM WET AREA SYSTEMS
Form to GIB Aqualine® Wet Area Systems.

3.11 INSTALL TAPE-ON TRIMS
Install to GIB® Goldline™ Tape-on trims literature and/or GIB® Ultraflex high impact corner mould literature.

Finishing

3.12 FINISHING GENERALLY
To GIB® Site Guide and documentation.

Completion

3.13 REPLACE
Replace damaged sheets or elements.

3.14 CLEAN DOWN
Clean down completed surfaces to remove irregularities and finally sand down with fine paper to the sheet manufacturer's requirements, to leave completely smooth and clean.

3.15 REMOVE
Remove debris, unused materials and elements from the site.

3.16 LEAVE
Leave work to the standard required by following procedures.

4. SELECTIONS
Refer to Architectural Drawings

Plasterboard

4.1 STANDARD SYSTEM WALLS

Location	Plasterboard type / Lining requirements	Thickness	Finish Level
BOH	GIB® Standard plasterboard	13mm	4
Kitchen and Bathroom	GIB Aqualine® plasterboard	13mm	4
FOH walls	GIB® Standard plasterboard 13mm	13mm	5

4.2 STANDARD SYSTEMS CEILINGS

Location	Plasterboard type / Lining requirements	Thickness	Finish Level
Kitchen and Bathroom	GIB Aqualine® plasterboard	13mm	4
FOH ceiling (excluding after hours lobby area)	GIB Ultraline® PLUS plasterboard	13mm	5
FOH ceiling (entrance lobby areas excluding curved edges)	GIB® Standard plasterboard 13mm	13mm	5

Accessories

4.4 ACCESS HATCHES
Brand: Potters Unihatch
Type: 530 x 530 (unless otherwise specified) Fitted with NZ manufactured 16mm High Moisture Resistance and preprimed MDF Medium Density Fibre board.
Edge detail: Set bead

4.5 TAPE ON EDGE OR CORNER TRIMS
Brand/type: GIB® Goldline® Internal 90 Degree Corner TrimGIB® Goldline® External 90 Degree Corner TrimGIB® Slim Arch bead (To all curved plaster bulkhead edges)

4.6 EDGE PROFILES
Brand/type: GIB® Rondo® Casing Beads

5211P POTTER STEEL STUD FRAMING (R1)

1. GENERAL

This section relates to the supply and installation of **Potter Interior Systems** steel stud and track sections of dry construction for internal light steel framing:
- wall framing
- ceiling framing

1.1 RELATED WORK

Refer to GIB PLASTERBOARD LININGS for wall linings.

1.2 ABBREVIATIONS AND DEFINITIONS

The following abbreviations are used throughout this part of the specification:

BMT	Base Metal Thickness
FRR	Fire Resistance Rating
STC	Sound Transmission Class

Documents

1.3 DOCUMENTS REFERRED TO

Documents referred to in this section are:

AS/NZS 1170.1	Structural design actions - Permanent, imposed and other actions
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
NZS/AS 1530.3	Method for fire tests on building materials, components and structures - Simultaneous determination of ignitability, flame propagation, heat release and smoke release
AS/NZS 2588	Gypsum plasterboard
AS/NZS 2589	Gypsum linings - Application and finishing
NZS 3404 (1997)	Steel Structures Standard
NZS 4219	Seismic performance of engineering systems in buildings
AS/NZS 4600	Cold-formed steel structures
ISO 140	Acoustics - Measurement of sound insulation in building and of building elements Part 4: Field measurements of airborne sound between rooms
ISO 9001	Quality management systems - requirements

Documents listed above and cited in the clauses that follow are part of this specification. However this specification takes precedence in the event of it being at variance with the cited document.

1.4 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:
USG Steel stud and track system
USG Revoe clip - partition to ceiling

Copies of the above literature are available at:

Web:	www.potters.co.nz
Email:	info@potters.co.nz
Telephone:	0800 POTTER (0800 768 837)
Facsimile:	09 579 5661

Requirements

1.5 NO SUBSTITUTIONS

Substitutions are not permitted to any specified system, or associated components and products.

1.6 QUALIFICATIONS

Work to be carried out by tradespeople experienced, competent and familiar with the materials and techniques specified.

1.7 ACCEPTABLE INSTALLERS
Use only accredited workers/installers skilled and experienced in the building system specified. To AS/NZS 1170.1. Provide evidence of experience, listing completed projects of similar size and complexity.

1.8 SAMPLE SECTION
Erect a sample section of the stud framing system. Subject to confirmation in writing, the sample section may form part of the completed installation.

Performance

1.9 LOADING CODE REQUIREMENT
To AS/NZS 1170.1, NZS 1170.5, AS/NZS 4600, NZS 4219, NZS 3404.

1.10 LOAD-CARRYING MEMBERS
Select sections that will satisfy the transverse, dead and live load requirements by complying with the manufacturer's design data. To AS/NZS 1170.1.

1.11 FIRE RATING REQUIREMENT
To NZS/AS 1530.3. Refer to appropriate lining board manufacturer's technical literature for detailed instructions on installation of fire-rated drywall systems.

1.12 ACOUSTIC REQUIREMENT
To ISO 140. Include all openings and penetrations and ensure absence of adjoining leak paths. Refer to appropriate lining board manufacturer's technical literature for detailed instructions on installation of acoustic drywall systems.

1.13 CERTIFICATION
Provide certificates and other evidence that the system complies with the standards of performance specified.

2. PRODUCTS

Materials

2.1 STEEL FRAMING
Manufactured in New Zealand to ISO 9001:2000 by USG Interiors Pacific Ltd.

Consisting of studs, track, nogs and opening trims of precision roll-formed galvanized 0.50/0.55 BMT minimum gauge steel sections. Stud webs to have pre-punched coined holes for services. Refer to SELECTIONS for type and size.

Components

2.2 SCREWS
Refer to steel stud framing systems installation manual for screw fixing data tables, application and recommended screw and sizes.

2.3 ACCESS PANEL
Refer to SELECTIONS for location, edge detail and lock.

3. EXECUTION

Conditions

3.1 DELIVERY
Take delivery of steel stud framing systems undamaged. Reject all damaged materials.

3.2 STORAGE
Store materials and accessories on a level, firm base, completely protected from and damage. Ensure storage areas are away from current work areas. Ensure frames are clean and dry when lining.

3.3 HANDLING
Avoid distortion and contact with potentially damaging surfaces/substances. Do not drag steel stud framing systems across each other, or across other materials. Protect edges, corners and surfaces from damage.

3.4 ADJOINING SURFACES
Do not commence work until the adjoining structure and/or surfaces are of a standard required by the manufacturer for the specified installation; plumb, level and in true alignment.

3.5 SETTING OUT
Set out the framing work true to line and square, before starting erection.

3.6 PROTECT
Protect surfaces, cabinetwork, fittings, equipment and finishes already in place from the possibility of damage during the building process.

Application

3.7 STUD AND TRACK SECTIONS
Fix, erect and fit to finish rigid, plumb, square and true to line and face to the USG steel stud framing systems installation manual.

3.8 NOGGING
Screw or crimp noggings to both flanges of the studs where required to manufacturer's steel stud framing systems installation manual. Confirm with manufacturer that individual noggings may be cut from continuous lengths.

3.9 BRACING TO PARTITIONS AND DOORS

Allow to provide bracing from top of partitioning to underside of structure using TrackLok PT @ 2.4m centres max. To be installed as per manufacturers specifications.

- Diagonal brace at 2400mm centres for solid partitions
- Diagonal brace at 1200mm centres for full height glazing in 25mm slimline glazing channels
- Return wing walls; brace at end of wall when wall exceeds 700mm long
- Diagonal brace to each top corner of full height door frames and openings for full height sliding doors
-Diagonal brace at 1200mm centres to top of top hung sliding door tracks and at 1400mm centres to top track guide channels (bottom hung doors).

Minimum brace sizes:
Up to 1200mm ceiling void; USG 40x40mm wall angle
Over 1200mm ceiling void: USG Steel Stud - 64mm .55BMT

Braces above doors are to be secured to ply or stud profile inlays which have been laid In between tee rails directly above ceiling tiles. Inlays in turn are to be securely fixed to door head framing below.

Above ceiling partition bracing is to be diagonally braced off nearest suitable structure.

3.9 DOOR FRAMING
Fix, erect and fit USG steel stud framing system to drawings and to manufacturer's installation manual.

Where door mullion adjoins full height slimline glazing profiles, make allowance for additional concealed fixings to the floor slab. Fit 2 no. aluminium angle stakes of approximately 50x50x1.6mm angle per mullion. Each stake to be epoxy glued and 2x shot fired to slab. Glue fix vertical legs into slots inside mullion before completing enclosure of mullion.

3.10 PLUMBING AND ELECTRICAL SERVICES
Fix, erect and fit to steel stud framing systems installation manual.

3.11 DRILLING
Drilling to stud framing systems installation manual. Where extra service holes are required they may be positioned using a hole saw or similar and fit grommets. Additional service holes should be positioned as close as practical to the centreline of the stud.

3.12 ACCESS PANEL
Install to manufacturer's recommendations and installation requirements.

Completion

3.13 REPLACE
Replace damaged or marked elements.

3.14 LEAVE
Leave installation free of any marks or blemishes. Leave all work to the standard required following procedures.

3.15 REMOVE
Remove debris, unused materials and elements from the site.

3.16 MAKE GOOD
Make good damage to surrounding surfaces.

4. SELECTIONS

Materials

4.1 USG STEEL STUD AND TRACK SECTIONS

Width size:	92mm
Stud Type:	single stud, boxed stud. Contractor to ensure that a double boxed steel stud is located either side of door openings. Generally all non load bearing partitions are to be 92mm wide, spacing and stud thickness to be determined by contractor based on the internal wind pressures.
Stud Thickness	.55mm BMT & .75 BMT

4.2 TRACK FASTENERS
Number of fasteners: refer to manufacturers specification and installation guide

4.1 FASTENER TYPE: refer to manufacturers specification and installation guide

4.2 TRACK FASTENERS
Number of fasteners: refer to manufacturers specification and installation guide
Fastener type: refer to manufacturers specification and installation guide

4.4 LINING
Refer to 5113G GIB Plasterboard lining

5211PP POTTER ALUMINIUM INTERNAL PARTITIONS (R1)

1. GENERAL

This section relates to the supply and installation of **Potter Interior Systems Softline** and **Sapphire** aluminium internal partitioning.

1.1 RELATED WORK

Refer to POTTER STEEL STUD FRAMING for light steel framing

1.2 ABBREVIATIONS AND DEFINITIONS

The following abbreviations are used throughout this part of the specification:

BMT	Base Metal Thickness
FRR	Fire Resistance Rating
STC	Sound Transmission Class
AWCINZ	Association of Wall and Ceiling Industries of New Zealand

Documents

1.3 DOCUMENTS REFERRED TO

Documents referred to in this section are:

AS/NZS 1170.1	Structural design actions - Permanent, imposed and other actions
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
NZS 1530.3	Method for test on building materials, components and structures - Simultaneous determination of ignitability, flame propagation, heat release and smoke release
AS/NZS 1866	Aluminium and aluminium alloys - Extruded rod, bar, solid and hollow
AS/NZS 2588	Gypsum plasterboard
AS/NZS 2589	Gypsum linings - Application and finishing
NZS 3404 (1997)	Steel Structures Standard
NZS 4219	Seismic performance of engineering systems in buildings
NZS 4223.1	Glazing in buildings - Glass selection and glazing
NZS 4223.3	Glazing in buildings - Human impact safety requirements
AS/NZS 4600	Cold-formed steel structures
ISO 140	Acoustics - Measurement of sound insulation in building and of building elements Part 4: Field measurements of airborne sound between rooms
ISO 9001:2000	Quality management systems - requirements

Documents listed above and cited in the clauses that follow are part of this specification. However this specification takes precedence in the event of it being at variance with the cited document.

1.4 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:
Potter Interior Systems Ltd aluminium catalogue
Standard specification for Sapphire partitioning systems
Specification for Softline aluminium partitioning suite
USG Steel stud and track system

Copies of the above literature are available at Potter Interior Systems Ltd:

Web:	www.potters.co.nz
Email:	info@potters.co.nz
Telephone:	0800 POTTER (0800 768 837)
Facsimile:	09 579 5661

Requirements

1.5 NO SUBSTITUTIONS

Substitutions are not permitted to any specified system, or associated components and products.

1.6 QUALIFICATIONS
Work to be carried out by tradespeople experienced, competent and familiar with the materials and techniques specified.

1.7 ACCEPTABLE INSTALLERS
Use only accredited workers/installers skilled and experienced in the building system specified. Provide evidence of experience, listing completed projects of similar size and complexity.

1.8 SHOP DRAWINGS
Provide shop drawings for review. Shop drawings to show, but not be limited to:
- Plans of each floor showing all essential elements and dimensions.
- Elevations of all partitions indicating type, individual materials and finishes.
- Details of all junctions within the partitioning system and between the partitions and surrounding elements.
- Details of all fixing methods and systems.
- Confirmation of all required fire and acoustic ratings, including associated baffles to ceiling/floor spaces.
- All associated services.
- All hardware and accessories.

Refer to the general section SHOP DRAWINGS for the requirements for submission and review and the provision of final shop drawings.

1.9 SAMPLE SECTION
Erect a sample section of the partitioning system. Subject to confirmation in writing, the sample section may form part of the completed installation.

Performance

1.10 LOADING CODE REQUIREMENT
To AS/NZS 1170.1, NZS 1170.5, AS/NZS 4600, NZS 4219, NZS 3404.

1.11 LOAD-CARRYING MEMBERS
Select sections that will satisfy the transverse, dead and live load requirements by complying with the manufacturer's design data. To AS/NZS 1170.1.

1.12 FIRE RATING REQUIREMENT
To NZS/AS 1530.3. Refer to appropriate lining board manufacturer's technical literature for detailed instructions on installation of fire-rated drywall systems.

1.13 ACOUSTIC REQUIREMENT
To ISO 140. Include all openings and penetrations and ensure absence of adjoining leak paths. Refer to appropriate lining board manufacturer's technical literature for detailed instructions on installation of acoustic drywall systems.

1.14 CERTIFICATION
Provide certificates and other evidence that the system complies with the standards of performance specified.

2. PRODUCTS

Materials

2.1 ALUMINIUM FRAMED PARTITIONS
Alloy designation to comply with AS/NZS 1866. Aluminium sections branded and extruded for anodising or powder coating. Door sections complete with PVC or vinyl inserts. Glazing frames complete with glazing gaskets. Refer to SELECTIONS.

2.2 STEEL FRAMING
Manufactured in New Zealand to ISO 9001:2000 by USG Interiors Pacific Ltd.

Consisting of studs, track, nogs and opening trims of precision roll-formed galvanized

0.50/0.55 BMT minimum gauge steel sections. Stud webs to have pre-punched coined holes for services. Refer to SELECTIONS for type and size.

2.3 POTTERS ALUMINIUM DOORS AND FRAMES
Refer to SELECTIONS.

2.4 TIMBER DOORS AND FRAMES
Refer to section TIMBER DOORS.

2.5 RESILIENT CLIP AND CHANNEL
ST-001 resilient sound insulation clip and USG FC37 furring channel for sound rated systems.

2.6 GLASS
Refer to section GENERAL GLAZING.

2.7 LININGS
To AS/NZS 2588. Refer to SELECTIONS for type, thickness and finish.

2.8 INSULATION
Refer to SELECTIONS for type and thickness.

Components

2.9 GLAZING GASKETS
Thermoplastic rubber.

2.10 SETTING BLOCKS
Neoprene 80-90 Shore hardness, set at quarter points. All to comply with NZS 4223.1, section 105.6 and NZS 4223.2, clause 203.

Components

2.11 SCREWS TO STEEL FRAMING
Refer to steel stud framing systems installation manual for screw fixing data tables, application and recommended screw and sizes.

Accessories

2.12 ACOUSTIC SEALANT AND CAULKING
Acoustic sealant and caulking to ISO 140.

3. EXECUTION

Conditions

3.1 DELIVERY
Keep components dry in transit. Take delivery of all components dry and undamaged. Reject all damaged materials.

3.2 SITE CONDITIONS
Do not begin installation until the building is closed in, fully glazed and the roof weathertight.

3.3 STORAGE
Store materials and accessories on a level, firm base, in dry conditions, well ventilated, out of direct sunlight and completely protected from weather and damage. Ensure storage areas are away from current work areas. Cover to keep dry until fixed.

3.4 HANDLING
Avoid distortion and contact with potentially damaging surfaces/substances. Do not drag components across each other, or across other materials. Protect edges, corners and surfaces from damage.

3.5 ADJOINING SURFACES
Do not commence work until the adjoining structure and/or surfaces are of a standard required by the manufacturer for the specified installation; plumb, level and in true alignment.

3.6 SETTING OUT
Set out the partitioning work true to line and square, before starting erection.

3.7 PROTECT
Protect surfaces, cabinetwork, fittings, equipment and finishes already in place from the possibility of damage during the building process.

Application

3.8 INSTALLATION GENERALLY
Fabricate and install in accordance with Potter Interior Systems Ltd installation instructions.

3.9 PARTITION ERECTION
Set out true to line and square before commencing erection. Carry out all fixing, erection and fitting to finish rigid, plumb, square and true to line and face. All to Potter Interior Systems Ltd installation instructions.

Fit floor and ceiling channels square and true to line. Butt joint corners and intersections. Before fixing apply suitable barriers of bituminous coatings, stops or underlays between dissimilar metals in contact, or between aluminium in contact with concrete.

3.10 STEEL STUD AND TRACK SECTIONS
Fix, erect and fit to finish rigid, plumb, square and true to line and face to the USG steel stud framing systems installation manual.

3.11 NOGGING TO STEEL FRAMING
Screw or crimp noggings to both flanges of the studs where required to manufacturer's steel stud framing systems installation manual. Confirm with manufacturer that individual noggings may be cut from continuous lengths.

3.12 BRACING TO PARTITIONS AND DOORS
Allow to provide bracing from top of partitioning to underside of structure above as follows
- Diagonal brace at 1400mm centres for solid partitions
- Diagonal brace at 1200mm centres for full height glazing in 25mm slimline glazing channels
- Return wing walls; brace at end of wall when wall exceeds 700mm long
- Diagonal brace to each top corner of full height door frames and openings for full height sliding doors
-Diagonal brace at 1200mm centres to top of top hung sliding door tracks and at 1400mm centres to top track guide channels (bottom hung doors).
Minimum brace sizes:
Up to 1200mm ceiling void; USG 40x40mm wall angle
Over 1200mm ceiling void: USG Steel Stud
Braces above doors are to be secured to ply or stud profile inlays which have been layed inbetween tee rails directly above ceiling tiles. Inlays in turn are to be securely fixed to door head framing below.

3.13 SECURE DOOR FRAMES TO FLOOR
Where door mullion adjoins full height slimline glazing profiles, make allowance for additional concealed fixings to the floor slab. Fit 2 no.aluminium angle stakes of approximately 50x50x1.6mm angle per mullion. Each stake to be epoxy glued and 2x shot fired to slab. Glue fix vertical legs into slots inside mullion before completing enclosure of mullion.

3.12 DRILLING TO STEEL FRAMING
Drilling to stud framing systems installation manual. Where extra service holes are required they may be positioned using a hole saw or similar and fit grommets. Additional service holes should be positioned as close as practical to the centreline of the stud.

3.13 LINING
To AS/NZS 2589. Fix and finish lining boards to manufacturer's recommendations.

3.14 POTTERS ALUMINIUM DOORS AND FRAMES
Install in accordance with Potter Interior Systems Ltd installation requirements, complete with all hinges, Potters sliding door gear and door furniture as specified.

3.15 GLAZING
Install in accordance with Glazing Manufacturer's installation instructions.

3.16 PLUMBING AND ELECTRICAL SERVICES
Fix, erect and fit to Manufacturer's installation instructions.

Completion

3.17 REPLACE
Replace damaged or marked elements.

3.18 LEAVE
Leave installation free of any marks or blemishes. Leave all work to the standard required following procedures.

3.19 REMOVE
Remove debris, unused materials and elements from the site.

3.20 MAKE GOOD
Make good damage to surrounding surfaces.

4. SELECTIONS

Materials

4.1 POTTERS ALUMINIUM FRAMED PARTITIONS

System:	A Series 132
Stud Size:	92mm
Lining thickness:	13mm
Finish:	Anodised
Colour:	Natural

System:	C Series 45
Aluminium Track type:	PAS012
Lining thickness	13mm / 12mm
Finish	Anodised

4.2 GLAZING
Refer to Architectural drawings.

4.3 POTTERS ALUMINIUM HINGED DOORS
75mm stiles and 100mm top and bottom rails. Main contractor to confirm on site to match existing throughout Partners and Retail.

4.4 TIMBER DOORS
40mm solid core, paint finish

4.5 DOOR HARDWARE AND FURNITURE
Refer to Architectural documentation.

5225 OPERABLE WALLS (R1)

1. GENERAL

This section relates to the supply and installation of operable walls.

1.1 RELATED WORK

Refer to 5231 Interior doors and windows

1.2 ABBREVIATIONS AND DEFINITIONS

The following abbreviations apply specifically to this section:
STC sound transmission class rating
Rw weighted sound reduction index

Documents

1.3 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:
NZBC C/AS1-AS7 Protection from fire
AS 1191 Acoustics - method of laboratory measurement of airborne sound transmission insulation of building elements.
ISO 717.1 Acoustics - rating of sound insulation in buildings and of building elements - airborne sound insulation.

1.4 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:
Dynamic Closures Technical Guides
Dynamic Closures Folding Closures IR Door Specification
Dynamic Closures Warranty

Manufacturer/supplier contact details

Manufacturer/ supplier:	Dynamic Closures (Aust.) Pty. Ltd
Web:	www.dynamicclosures.com.au
Email:	administration@dynamicclosures.com.au
Telephone:	+61 3 9739 5222
Installer/ NZ agent:	Leaweld Perimeter Solutions.Ltd
Email:	Steve.Evans@leaweld.co.nz
Telephone:	+64 9 827 1904

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER

Provide a material manufacturer/supplier warranty:
1 year: For supply and installation

- Provide this warranty on manufacturer's standard form.
- Commence the warranty from the date of completion of this part of the contract work.

Refer to **Dynamic Closures Warranty** (in Manufacturers Information) for warranty requirements.

Requirements

1.6 NO SUBSTITUTIONS

Substitutions are not permitted to any specified products, components or accessories.

1.7 SAMPLES

Submit on request samples of panels for approval of colour and finishes.

1.8 QUALIFICATIONS

Installation to be carried out by certified installers.

1.9 SERVICE REQUIREMENTS
Operable Wall System to be serviced at a frequency specified by the manufacturer, and in accordance with manufacturer's recommendations. Provide service plan in writing with tender.

1.10 FIRE PERFORMANCE
Surface finish Group Number to NZBC C/AS2-AS7, Table 4.1 for the appropriate fire risk group.

2. PRODUCTS

Materials

2.1 WALL PANEL
Operable wall panel frames to be torsionally stiff aluminium profiles. The large vertical panel frames to have magnetic strips for positive panel locking and sealing, and fitted with mechanical or sweep top and bottom seals.
Refer to SELECTIONS for panel options.

2.2 STACKING LAYOUT
Either centre, side and remote stacking. Refer to SELECTIONS for stacking options.

2.3 DOOR STORAGE CUPBOARD
Piano hinges must be fitted to the door storage pocket/ cupboard.
The storage pocket / cupboard door and piano hinges MUST provide a minimum of 175mm from centre of track on both sides.
Only piano hingers are to be used. Cabinet hinges are NOT to be used. Cabinet hinges will damage the concertina door, restrict movement of the door, void the concertina door warranty and create unnecessary difficulty operating the door.

THE DOOR INSTALLATION AND COMPLIANCE CERTIFICATE WILL ONLY BE ISSUED IF PIANO HINGES ARE FITTED TO THE STORAGE POCKET / CUPBOARD DOOR.

Storage Pocket Height:
Minimum Internal Height Clearance inside the door storage pocket / cupboard must be the same level as or less (lower) than the Finished Floor Level (FFL) across the opening so the door can fit into the storage pocket. NB: The various clearances and track support details apply equally to curved and straight openings.

Storage Pocket Depth:
Minimum Internal Depth Clearance is based on the door configuration (number of panels & posts) & layout design. To ensure accurate clearance depth, please check with Dynamic Closures

2.4 TRACK SYSTEM
Refer to Dynamic Closures Technical Guides for further details

2.5 ACCESSORIES
Egress door for emergency exit
Refer to SELECTIONS for the various panel accessories.

3. EXECUTION

Conditions

3.1 HANDLE AND STORE
Handle and store tracks, studs, panels and accessories to avoid damage. Keep dry in transit, store clear of and on a level floor and cover for protection.
Refer to SELECTONS for acoustic rating options.

3.2 SUBSTRATE
Ensure substrate is plumb, level and in true alignment. Check that structure to hang

operable wall is in place, and is secure and adequate.
Refer to Dynamic Closrues Technical Guides for further details

3.3 PROTECT
Protect adjoining areas, surfaces and finish from damage.

Application

3.4 INSTALL OPERABLE WALL
Carry out the fixing, erection and fitting to finish rigid, plumb, true to line and face and square, to the manufacturer's requirements.

3.5 INSTALL COMPONENTS
Hang movable operable wall system and fit hardware to manufacturer's requirements.

Completion

3.6 TRADE CLEAN
Trade clean operable doors, tracks and other related surfaces inside and out at the time of installation to remove marks, dust and dirt, to enable a visual inspection of all surfaces.

3.7 REPLACE
Replace damaged or marked elements

3.8 LEAVE
Leave work with parts fully and freely working and to the standard required by following procedures.

3.9 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS

Operable wall system

4.1 OPERABLE WALL SYSTEM

Manufacturer:	Dynamic Closures (Aust.) Pty. Ltd
Type:	PARAVENT Intruder Resistant WIDEBODY
Track/Stacking system:	Refer to Dynamic Closures Technical Guides, Appendix 08, 09, 10.
Operation:	Manual
Option:	Egress door for emergency exit
Door Storage Cupboard:	Refer to clause 2.3 DOOR STORAGE CUPBOARD.

4.2 STRUCTURE
Refer to Architectural drawing and Dynamic Closures Technical Guides.

5231 INTERIOR DOORS AND WINDOWS (R1)

1. GENERAL

This section relates to the supply and installation of interior:
- doors
- windows
- door frames
- doorsets

1.1 RELATED WORK

Refer to GLAZING INTERIOR for glass type.

Documents

1.2 DOCUMENTS REFERRED TO

Documents referred to in this section are:

NZBC C/AS1	Fire safety
AS/NZS 1170.1	Structural design actions - Permanent, imposed and other actions
NZS 3602	Timber and wood-based products for use in building
NZS 3604	Timber framed buildings
NZS 3610	Specification for profiles of mouldings and joinery
NZS 4211	Specifications for performance of windows
NZS 4223.3	Glazing in buildings - Human impact safety requirements

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are available from the manufacturer.

2. PRODUCTS

Materials - door and window frames general

2.1 ALUMINIUM EXTRUSIONS

Alloy designation to comply with AS/NZS 1866. Branded and extruded for anodising or powder coating.

Materials - doors general

2.2 TIMBER

To NZS 3602. Moisture content 10-14%. To NZS 3610. Solid or hollow core.

2.3 ALUMINIUM

Alloy designation to comply with AS/NZS 1866. Branded and extruded for anodising or powder coating.

Materials - doorsets

2.4 STANDARD DOORSETS, SIDE HUNG DOOR

Frames to profile as detailed and dimensioned, fitted with solid or hollow core door. Refer to SELECTIONS.

2.5 STANDARD DOORSETS, SLIDING

Frames to profile as detailed and dimensioned, fitted with solid or hollow core door. Refer to SELECTIONS.

Components

2.6 WINDOW AND DOOR FURNITURE
Refer to HARDWARE for type and finish.

2.7 SCREWS
Stainless steel or non-corrodible metal. Length sufficient to penetrate into the background support up to the shank. Screws for fixing hinges, hardware or furniture to match the item being attached.

2.8 NAILS
Length sufficient to penetrate into the background support at least half the nail length, except if into radiata pine then three-fifths their length.

2.9 DOOR HINGES
Size and gauge to carry door size and weight.
Provide 4 hinges per door leaf @ up to 2200mm high
Provide 5 hinges per door leaf above 2200mm high

Type:	Fast Fix Hinges
Size:	110mm
Material:	Natural Anodised Aluminium
Pin:	MS Fixed

2.7 DOOR HINGES
Size and gauge to carry door size and weight. 3 hinges per door. **Unless specified otherwise**
Type: Loose pin
Size: 89mm
Material: Zinc-plated steel
Pin: Loose-pin zinc-plated steel

2.10 INTERIOR SLIDING DOOR GEAR
To suit door size and weight and as detailed.

2.11 PAINT FINISH

Brand:	Resene
Finish/colours:	See Architectural documentation Solid doors to be painted PA01: Karen Walker, Wan White N93-005-105

Aluminium

2.12 ANODISED ALUMINIUM
To WANZ SFA 3503-03. Refer to SELECTIONS for thickness and colour.

3. EXECUTION

Conditions

3.1 GENERALLY
Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.2 DO NOT DELIVER
Do not deliver any elements which cannot be unloaded immediately into suitable storage conditions.

3.3 HANDLE
Handle, unload and store elements without distortion and avoiding pre-finished surfaces rubbing together, and contact with mud, moisture and other damaging materials.

3.4 PROTECT
Protect all elements against damage to arrises and glazing beads. Store frames and doors flat and away from moisture or direct sunlight.

3.5 FABRICATE DOORSETS
Fabricate doorsets and windows in the factory with doors hung, provision for furniture made, finishes applied and fully operable.

3.6 FABRICATE DOORS
Fabricate doors in the factory, with provision for door furniture.

3.7 CHECK ALL OPENINGS
To NZS 3604.Check all openings on site for size and standard of execution before installing window or door frames. Installation tolerances of windows subject to earthquake design to comply with AS/NZS 1170.1.

Assembly

3.8 TOLERANCES
Construct windows to a dimensional accuracy to comply with NZS 4211, clause 8.

3.9 FABRICATION GENERALLY
Manufacture and fabricate frames and doors as detailed. Install hinges and running gear as scheduled. Provide temporary bracing and protection. Temporarily secure all opening elements for transportation.

Application - generally

3.10 FIXING FRAMES
Fix and assemble frames rigidly in place, plumb, level and true to line and face without distortion and with all opening sashes fully and easily operating. Fit architraves.

3.11 DISTORTION
Do not distort frames when wedging or other packing, or when tightening fixings. If necessary adjust packing and fixings to eliminate binding. Do not cut, plane or sand frames to remedy distortion.

3.12 FIXINGS
Fix frames so that nail heads are covered by applied stops and beads. Punch all nail heads below timber surfaces which will be visible in completed work. Ensure that at least one frame fixing is adjacent to each hanging point.

Application - doorsets

3.13 PROPRIETARY ELEMENTS
Fix in accordance with the door manufacturer's requirements.

3.14 INSTALLATION GENERALLY
Wedge frames into opening and fix through into the wall framing. Locate all wedges and fixing at hinge positions and opposite, with one fixing in the vicinity of the lock. Fixings concealed behind planted stops.

Hang doors on hinges or sliding gear as specified and to operate freely. Fit all hardware and door furniture.

3.15 INSTALL STANDARD DOORSETS
Steel stud walls - steel and aluminium frames
Using a pilot hole in the frame, fix to steel studs with countersunk self-drilling corrosion proof screws. Fix at hinges and opposite, with one fixing in the vicinity of the lock.

3.16 BOTTOM CLEARANCE
Provide for specified floor coverings plus 5mm clearance at any point of swing. When floor covering is not specified, allow 25mm total.

For ventilated and/or air conditioned spaces allow 20mm clearance above finished floor coverings for supply/return air.

3.17 REMOVE DOORS
Remove doors from the frames if necessary to protect them, or for re-finishing, store safely and near completion refit them, all without any damage.

3.18 INSTALL PANELS
Prime rebates and beads, install sealant backing strips or silicone. Install dry beading to outside of panels as selected. Do not mitre corners of beads.

3.19 MANIFESTATIONS
To comply with NZS 4223.3, section 303.1: Manifestation (making glass visible).

3.20 INSTALL FURNITURE
Install latches, locks and door furniture as scheduled.

3.21 CHECK
Check and adjust operation of all doors, hardware and furniture.

Application - windows

3.22 CONFIRM PREPARATION OF WALL OPENINGS
Confirm that wall openings have been prepared ready for the installation of all window frames. Do not proceed with the window installation until required preparatory work has been completed.

3.23 INSTALLATION
Fix to comply with the reviewed shop drawings and installation details including bedding compounds and pointing sealants.

3.24 FIX HARDWARE
Fix all door hardware and furniture as scheduled.

Ensure Mortice locksets and latchsets are through bolted and sealed with 'Loctite'.

Completion

3.25 PROTECTION
Protect all finishes against damage from adjacent and following work.

3.26 REPLACE
Replace damaged, cracked or marked elements.

3.27 TRADE CLEAN
Clean off or remove safety indicators at completion of the building.

3.28 LEAVE
Leave work to the standard required for following procedures.

3.29 REMOVE
Remove safety indicators and protective coverings, and wipe down all doorsets thoroughly to leave them perfectly clean. Remove all debris, unused materials and elements from the site.

4. SELECTIONS – REFER TO ARCHITECTURAL DOCUMENTATION BNZ STORE DESI GN STANDARDS V6.0.

4.2 ALUMINIUM HINGED DOORS

Brand/type:	Potters PAS 500 series, complete with grey acoustic brush seals.
Material:	Aluminium
Finish/colour:	Natural anodised
Size:	40mm thick.

4.3 TIMBER DOORS HINGED

Material:	Solid Core timber
Finish/colour:	Resene,PA:01: Karen Walker, Wan White N93-005-105
Vision Panel:	Refer to Architectural documentation
Size:	40mm thick.

4.1 FOLDING INTRUDER RESISTANT DOOR

Location:	After Hours Lobby
Brand/type:	Dynamic Wide Body Intruder resistant door
Size:	Refer to Architectural documentation and Appendices 08, 09 & 10 for Manufacturers specifications.

5311A ACOUSTICAL USG/DONN® SUSPENDED CEILINGS (R1)

1. GENERAL

This section relates to the manufacture, supply and installation of USG suspended ceiling systems, including all elements offered by the manufacturer to complete the system.

1.1 RELATED WORK
Appendix 3. USG BNZ Kaikohe Seismic Ceiling Design drawing
Appendix 4. USG BNZ Kaikohe Seismic Ceiling Design

1.2 ABBREVIATIONS
The following abbreviations are used throughout this part of the specification:

NRC	Noise reduction coefficient
CAC	Ceiling attenuation class
STC	Sound transmission class
AWCINZ	Association of Wall and Ceiling Industries of New Zealand Inc

Documents

1.3 DOCUMENTS REFERRED TO
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC C/AS1-AS7	Protection from fire
NZBC C/VM2	Protection from fire
AS/NZS 1170.1	Structural design actions - Permanent, imposed and other actions
NZS 1170.5	Structural design actions - Earthquake actions - New Zealand
AS/NZS 1530.3	Methods for fire tests on building materials, components and structures - Simultaneous determination of ignitability, flame propagation, heat release and smoke release
AS 1530.4	Methods for fire tests on building materials, components and structures - Methods of tests on building materials, components and structures - Fire-resistance test of elements of construction
AS/NZS 2589	Gypsum linings - Application and finishing
AS/NZS 2785	Suspended ceilings - Design and installation
AS 2946	Suspended ceilings, recessed luminaires and air diffusers - Interface requirements for physical compatibility
AS/NZS 3837	Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter (cone test)
NZS 4219	Seismic performance of engineering systems in buildings
NZS 4221	Fibrous plaster sheet
ISO 6308	Gypsum plasterboard - Specification
ASTM C423	Test method for sound absorption and sound absorption coefficients by the reverberation room method
ASTM C 635	Standard specification for the manufacture, performance and testing of metal suspension systems for acoustical tile and lay-in panel ceilings
ASTM E1414	Standard test method for airborne sound attenuation between rooms sharing a common ceiling plenum (two room method)
ASTM E1477	Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers.

1.4 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are:
USG Lifetime Warranty
USG Donn® Brand Grid Suspension Systems
USG Seismic Design Guide
USG ScrewFix™ Plasterboard Suspension System
USG Drywall Grid Suspension System

Copies of the above literature, information and technical support are available from USG
Telephone: 0-9-270 2595 (upper North Island)

0-4-560 4528 (lower North Island/South Island)
Web: www.usg.co.nz

Pricing and availability are available from:
Telephone: 0800 POTTER (0800 768 837)
0800 666 556, T&R Distributors

Requirements

1.5 NO SUBSTITUTIONS
Substitutions are not permitted to any specified USG system, or associated components and products.

1.6 SAMPLE SECTION
Allow to erect a sample section of the suspended ceiling system offered. Subject to confirmation in writing, the sample section may form part of the completed installation. Refer to SELECTIONS for location.

1.7 INSTALLATION
To AS/NZS 2785. Installation by a manufacturer's approved installer, using the manufacturer's technical services. Installers must be members of the AWCINZ. Provide evidence of experience, listing completed projects of similar size and complexity.

Installation to comply with the requirements of NZS 4219; with related building services installations complying specifically with clauses 5.13 and 5.14.

1.8 CLEANING INSTRUCTIONS
Supply information on the materials and method of cleaning the ceiling system over its expected life.

1.9 SPARES
Provide spare matching ceiling elements in the quantities specified below. Deliver into a dry store at the site or elsewhere as directed and at agreed times. Refer to SELECTIONS for quantity.

1.10 SUPPLY WARRANTY
Supply a warranty as follows:
Type: USG's System Lifetime Warranty
(maximum 30 years - exposed grid and acoustical panel)
Donn® suspension system (15 years)
USG acoustical ceiling panels (15 years)
USG Drywall Grid suspension system (15 years)
USG ScrewFix suspension system (15 years)

Performance

1.11 LOADING CODE REQUIREMENT
Comply with the requirements of NZS 1170, section 8.

1.12 CERTIFICATION
Provide:
- certification of compliance with NZS 1170, section 8 for evaluation
- certificates and other evidence that the system offered complies with the standards of performance specified
- a Producer Statement on completion.

1.13 ACOUSTIC REQUIREMENTS
Use an independent testing authority to test a specimen of the ceiling system to ASTM C423 and ASTM E1414. Refer to SELECTIONS for acoustic performance requirements. Submit the results if requested.

1.14 EARLY FIRE HAZARD PROPERTIES
Early fire hazard properties of internal surface materials/systems when tested to NZBC C/AS1, Appendix C, **Test Methods**, must not exceed the following indices to NZBC C/AS1, Table 6.2.
When tested in accordance with AS/NZS 3837
Group: 1

NOTE: To be read in conjunction with the Fire Report. Contractor to ensure that all aspects of the specifications outlined in the Fire Report are satisfied.

1.14 ENVIRONMENTAL REQUIREMENTS
Design the ceiling system for use over its expected life without deterioration within the required temperature and humidity range. Refer to SELECTIONS for details.

1.18 REFLECTANCE
To ASTM E1477. Refer to SELECTIONS for reflectance and colour.

2. PRODUCTS

Substitutions are not permitted to the following, unless stated otherwise.

Materials - exposed grid systems

2.1 GRID SUSPENSION SYSTEM
Manufactured in New Zealand by USG Interiors Pacific Limited. Hot-dip galvanized steel elements to ASTM C635 for carrying ceiling panels, light fixtures and air distribution elements and complying with NZS 1170, section 8.
Brand: USG Donn®
Grid finish/colour: Pacific White

2.2 PERIMETER TRIM
Manufactured by USG Interiors Pacific Limited. Hot-dip galvanized pre-painted steel.
Brand/form: USG Donn®
Material: Hot-dip galvanized steel
Finish/colour: Pacific White

2.3 CEILING TILES
Brand: USG
Edge profile: to suit grid
Performance: ASTM C423, ASTM E1414

Materials - suspended flush ceilings

2.4 SUSPENSION SYSTEM
System: USG Drywall Grid suspension system or USG ScrewFix™ plasterboard suspension system
Finish: Hot-dip galvanized steel
Compliance: AS/NZS 2785, AS/NZS 1170, NZS 1170.5, ASTM C635

2.6 PLASTERBOARD SHEET
Manufactured by a member of the AWCI drywall division. Gypsum plaster core encased in a durable face and backing papers to ISO 6308.

2.6 FIBROUS PLASTER SHEET
Manufactured by a member of the AWCI Fibrous Plaster Association. Gypsum plaster, casting grade reinforced with fibreglass or sisal hemp to NZS 4221.

Materials - specialty ceilings

2.7 METAL PAN
Manufactured from pre-painted aluminium
Brand: USG Geometrix 3D Metal Ceiling
Colour: Flat white/silver satin/custom

Grid system: USG Donn Centricitee.

Components

2.7 SCREWS
Screws to suit the lining manufacturer.

3. EXECUTION

Conditions

3.1 CO-ORDINATE SERVICES
Co-ordinate and co-operate with electrical and mechanical work to avoid conflict between suspension members and luminaires, diffusers, pipework and ducting. Confirm the provision of extra hangers and fixings.

Ensure co-operation with work in and above the ceiling, including the marking of specific ceiling tiles below major access points to above-ceiling services. Colour coded markings to follow the standards laid down by mechanical and electrical services.

3.2 SITE CONDITIONS
Do not begin installation until the building is closed in, fully glazed, the roof watertight, and mechanical and electrical duct work above the ceiling completed.

3.3 COMPLY
Comply with AS 2946 for interface requirements for physical compatibility.

3.4 RESPONSIBILITY
Ensure that conditions are suitable for the ceiling installation. Arrange for the programming of the work to suit required practice.

Application

3.5 INSTALL
Install the system to AS/NZS 2785 minimum standards and the ceiling manufacturer's requirements.

3.6 ACCESSIBILITY
Provide access to the ceiling system and the in-ceiling and above-ceiling services so that maintenance and removal of any part can be carried out without damage to the ceiling system or panels.

3.7 PENETRATIONS
Accommodate recessed light fittings, air conditioning outlets and other electrical and/or mechanical services that are fixed to or pass through the ceiling system. Provide independent support for these as necessary. Such fittings are not to be supported by the acoustical ceiling panels.

3.8 RETURN AIR PLENUM
Tiles to prevent release of fibres into the ceiling space, air conditioning or ventilation system. Clip tile down to the grid to stop lifting if required.

3.9 FLUSH CEILING
Install the suspension system to USG Interiors Pacific Limited requirements and AS/NZS 2785 minimum standards. Screw-fix sheets to sections at the centres required by the ceiling lining manufacturer to AS/NZS 2589. Stagger joints and fully support on sections, at centres to suit the load and the ceiling system manufacturer's requirements. Refer to 5112 FIBROUS PLASTER LININGS for fibrous plaster stopping, or to 5113 PLASTERBOARD LININGS for plasterboard stopping.

3.10 PROTECT EXISTING WORK
Protect adjacent existing work from damage during the installation.

Completion

3.11 REPLACE
Replace damaged or marked elements.

3.12 LEAVE
Leave work to the standard required by following procedures.

3.13 REMOVE
Remove debris, unused elements and elements from the site.

3.14 CLEAN
Clean soiled or marked units.

4. SELECTIONS
Substitutions are not permitted to the following, unless stated otherwise.

4.1 SUSPENSION SYSTEM - ACOUSTICAL
Type: USG Donn® DXT Centricitee Grid
Module: 1200mm x 400mm
Rail face: 15mm

4.2 SEISMIC RESTRAINT DESIGN
NOTE; Main Tee Rail to run in same direction as the purlins at 1200 mm Centres.
Main T Rail; Donn DXT38D-3600
Cross T Rail; Donn DXT38D-1200
Wall Angle; Donn MSL 45-3600 Shadowline ;
Fixed Sides; Main Tee Rail Secured with USG ACM7 Clip USG Detail PA9 2 Screws ; Cross Tee Rail Secured with USG ACM7 Clip USG Detail PA9 1 Screw
Floating Sides; Secured with USG ACM7 Seismic Clip (USG PA2)

Substitutions are not permitted to any specified USG system, components or products

4.3 PERIMETER TRIM
Type: Type: USG MSL 45

4.1 CEILING TILES
Main contractor to confirm existing ceiling tile type on site from the following selection.

Location: FOH & BOH – Refer to Architectural documentation.
Type: VT15 AMF Thermatex acoustic ceiling tiles.
Thickness: 15mm
Size: 400x 1200mm
Location: refer Architectural documentation.

Materials - suspended flush ceilings

4.7 SUSPENSION SYSTEM
Ceiling lining: USG Screwfix

4.8 CEILING LINING
Refer to:
5113G GIB plasterboard linings

4.9 ACCESS HATCHES
Refer to 5113G GIB Plasterboard linings

5511 JOINERY AND CABINETRY FIXTURES (R1)

1. GENERAL

This section relates to custom joinery fittings and cabinetwork, purpose made in a factory and fitted on site.

Documents

1.1 DOCUMENTS REFERRED TO
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

AS/NZS 1859.1	Reconstituted wood based panels - Specifications - Particleboard
AS/NZS 1859.2	Reconstituted wood based panels - Specifications - Dry processed fibreboard
AS/NZS 1859.3	Reconstituted wood based panels - Specifications - decorative overlaid wood panels

1.2 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are available from the manufacturer.

2. PRODUCTS

Materials

2.1 MEDIUM DENSITY FIBRE BOARD
Urea-formaldehyde resin bonded wood fibre sheet to AS/NZS 1859.2.

2.2 MEDIUM DENSITY FIBRE BOARD - PRINTED
Urea-formaldehyde resin bonded wood fibre sheet to AS/NZS 1859.2 with a dry stamping foil of polyester film with barrier and adhesive layers impregnated with a decorated photo gravure print.

2.3 MEDIUM DENSITY FIBRE BOARD - MELAMINE VENEER
Urea-formaldehyde resin bonded wood fibre sheet to AS/NZS 1859.2 and AS/NZS 1859.3 veneered both sides with melamine sheet.

2.4 MEDIUM DENSITY FIBRE BOARD - WOOD VENEER
Urea-formaldehyde resin bonded wood fibre sheet to AS/NZS 1859.2 and AS/NZS 1859.3 veneered with selected wood veneer.

2.5 HIGH PRESSURE LAMINATE
High pressure decorative laminate bonded to a high density oil-tempered hardboard sheet to AS/NZS 1859.3 and AS/NZS 1859.4, with melamine backing.

2.5 LAMINATE
Resin impregnated decorative paper overlaid on high density oil-tempered hardboard to AS/NZS 1859.3 and AS/NZS 1859.4..

2.5 BACKING BOARD
Urea-formaldehyde resin bonded very fine wood fibre sheet to AS/NZS 1859.2.
Minimum thickness: 6mm

2.6 PRE-FINISHED BACKING BOARD
Urea-formaldehyde resin bonded fine wood fibre sheet to AS/NZS 1859.2 and AS/NZS 1859.3, veneered one side with melamine sheet.
Minimum thickness: 6mm

Components

Accessories

2.7 ADHESIVES
As approved by the manufacturer for the timber product or pre-finished timber product joi nt being used.

Finishes

3. EXECUTION

Conditions

3.1 JOINERY FIXTURES GENERALLY
Execution to include those methods, practices and processes contained in the current syll abus for the National Certificate in Carpentry and the National Certificate in Joinery (cabin etry, exterior joinery, stairs). Take responsibility for the completed joinery fixtures includin g fittings included within fixtures and the on site installation.

3.2 SITE MEASURE
Site check and confirm dimensions after wall linings have been fixed. Verify positions of electric power outlets, wiring to light fittings included in joinery fixtures, water supplies and waste pipe locations.

3.3 SHRINKAGE
Arrange jointing and fixing so that shrinkage in any part and direction does not impair the strength or appearance of the finished work or damage the adjoining work.

3.4 TOLERANCES
Provide reasonable tolerances at connections between the joinery fittings and the buildin g fabric so that any irregularities are adequately compensated for in the site fixing.

3.5 PRE-FINISH WOOD VENEER
Select veneer board for match or uniformity, or symmetry of colour or grain of adjacent pi eces. Finish to same standard on all faces. Clash exposed edges with solid matching ti mber strips.

3.6 PRE-FINISH MELAMINE VENEER
Select and match all adjacent pieces. Clash exposed edges of wood grains with solid ma tching timber strips and with selected PVC strips to other patterns.

Conditions - site

3.7 TRANSIT
Load, transport and unload fittings without distortion or damage and keep covered to prot ect from the weather.

3.8 DELIVERY
Deliver fittings to the site only when floor, wall and ceiling surfaces are in place and the fitt ings can be immediately placed in their final location.

Assembly

3.9 MACHINING
Carry out machining within the practices required for the particular timber, wood product o r pre-finished wood product being used. Machine drill holes, cut recesses and form joints ready for assembly to the componentry manufacturer's requirements. Ensure work is acc urate, square and true to line.

3.10 MAKE CUT OUTS FOR APPLIANCES AND FITTINGS
Obtain fitting templates from the appliances and other fittings to be installed within joinery fixtures and bench tops. Ensure appliances and fittings can be installed with the required tolerances and clearances. Where bench tops are being provided under other work secti ons, provide templates and confirm dimensions to others.

3.11 ASSEMBLY

Carry out gluing, dowelling, and other operations necessary for the proper assembly of th e fittings as detailed with fixings concealed unless detailed otherwise. Scribe fit adjustabl e shelves with 4 shelf pins to each and with force fit pin holes at 50mm maximum centres in solid cheeks. Construct drawers and using groove mounting runners, fit them with 3m m clearance into drawer space. Hang doors on concealed hinges with 115 degree openi ngs except where detailed for 170 degrees.

3.12 GLUE JOINTS

Use glue joints where provision for shrinkage is not required. Cross-tongue or otherwise r einforce. Surfaces in contact to have an even sawn or planed finish and be free of conta mination. Mix, apply and set to the glue manufacturer's requirements with adequate pres sure applied to ensure intimate contact that will be maintained while the glue sets.

Application

3.13 FIXING ON SITE

- Scribe fit and conceal fix rigidly in place square, level, plumb and true to line and face a s detailed and to the required standard.
- Assemble fittings on-site if brought in sections.
- Fit counter and bench tops and upstands.
- Complete with moveable parts in place and freely moving in their proper range.

Completion

3.14 REPLACE

Replace damaged or marked elements.

3.15 LEAVE

Leave work complete, clean and without blemish and to the standard required by followin g procedures.

3.16 REMOVE

Remove debris, unused materials and elements from the site.

5521 HARDWARE (R1)

1. GENERAL

This section covers the supply and installation of door and window hardware and furniture.

Related work

1.1 RELATED SECTIONS
Refer to INTERIOR DOORS AND WINDOWS

Documents

1.2 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are available from the manufacturer.

Requirements

1.3 SUPPLIER
As described in the Architectural documentation and BNZ Store Design Standards

1.4 SAMPLES
Submit samples on request of nominated hardware elements, along with the relevant manufacturers' technical literature for review.

2. PRODUCTS

2.1 DOOR HARDWARE
Refer to SELECTIONS for product selection.

2.2 CABINET WORK HARDWARE
Refer to SELECTIONS for product selection.

Components

2.3 FIXINGS
Provide matching fixings, including screws, clips, bolts and brackets for hardware supplied.

3. EXECUTION

Conditions

3.1 RETAIN
Retain hardware in the manufacturer's original packaging. Ensure that units are complete with fixings and installation instructions. Label each unit separately with its hardware number and door/window number to match the submitted and approved schedule.

3.2 PACKAGE
Package required hardware units in clear plastic and label each package with its hardware and door/window number and location to match the drawings and the submitted and approved schedule. Place packages in cartons selected for "level", "location", and/or "sector" and label the packages and the cartons similarly.

3.3 STORE
Store hardware packages in a shelved, dry and securely locked area. Provide supervision when the secure area is unlocked and packages and cartons are being distributed; signing off each package from the schedule as released.

Installation

3.4 INSPECTION
Before starting the hardware installation, check frames, doors, sashes and adjacent

finishes are ready for the proper installation of the hardware.

3.5 LOCATE
Locate hardware units at heights and/or locations shown on the drawings, or as required to comply with relevant Codes and Standards. Before proceeding, confirm any dimension not shown or known.

3.6 CUTTING AND FITTING
Carry out cutting and fitting of the substrate necessary for installing any hardware unit before painting or finishing of that surface. Remove hardware when required for painting, placing it in the packaging or carton originally supplied and returning it to the secure store until ready for re-installation.

3.7 INSTALL HARDWARE
Install each hardware unit in accordance with the hardware manufacturer's requirements using templates and tools supplied or recommended by them. Set units level, plumb and true to line and required location, with all moving parts and actions freely and easily operating. Do not make any modifications to supplied units.

Ensure Mortice locksets and latchsets are through bolted and sealed with 'Loctite'.

Completion

3.8 ADJUST
Adjust and check each operating hardware unit for correct and smooth functioning. Replace those units that cannot be adjusted if they do not function correctly. Clean units and adjoining surfaces upon completing their installation. Only use lubricant if and when recommended by the hardware manufacturer/supplier.

3.9 REPLACE
Replace damaged or marked elements.

3.10 LEAVE
Leave work with parts fully and freely working and to the standard required by following procedures.

3.11 REMOVE
Remove debris, unused materials and elements from the site.

3.12 PROTECT
Protect hardware units from damage or marking.

3.13 FINAL ADJUSTMENT
Where hardware is installed more than a month prior to project completion, return and make a final check and adjustment of hardware units to ensure they are operating correctly, fitted properly and are undamaged.

4. SELECTIONS

4.1 MATERIALS - DOOR HARDWARE

Refer to Architectural drawing.
A608 – Fit Out - Window and Door Schedule.

5811 SIGNS AND DISPLAYS (R1)

1. GENERAL

This section relates to the supply and fixing of signs and displays, for internal and external applications, this includes:

- Vinyl sign systems
- Engraved, individual letter, Braille, traffic and pylon sign systems
- Illuminated sign systems, general signs and emergency exit signs
- Custom design and made signs

Documents

1.1 DOCUMENTS REFERRED TO

Documents referred to in this section are:

NZBC F6/AS1	Lighting for emergency
NZBC F8/AS1	Signs
AS/NZS 2293	Emergency escape lighting and exit signs for buildings
NZS 4223.3	Glazing in buildings - Human impact safety requirements
NZS 9201.8	Model general bylaws - control of advertising signs
AS/NZS 1428.4	Design for access and mobility - tactile indicators

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.2 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are available from the manufacturer.

Requirements

1.3 QUALIFICATIONS

Work to be carried out by tradespeople experienced, competent and familiar with the materials and techniques specified.

1.4 NO SUBSTITUTIONS

Substitutions are not permitted to any of the specified systems, components and associated products listed in this section.

1.5 INFORMATION FOR OPERATION AND MAINTENANCE

Provide general operation and maintenance information as electronic PDF format documents.

Provide this information prior to practical completion.

1.6 OPERATION AND MAINTENANCE MANUALS

Refer to the general section OPERATION AND MAINTENANCE for the requirements for submission and review of operation and maintenance manuals.

Provide the following operation and maintenance manual(s):
Illuminated signs

1.7 SPARES AND MAINTENANCE MATERIALS

Provide spares and maintenance materials listed in SELECTIONS to the Principal for ongoing maintenance requirements.

Compliance information

1.8 INFORMATION REQUIRED FOR CODE COMPLIANCE

Provide the following compliance documentation: -

- Applicators approval certificate from the manufacturer / importer / distributor Manufacturer's, importer's or distributors warranty

- Installer / applicator's warranty
- Producer Statement - Construction from the applicator / installer
- Producer Statement - Construction Review from an acceptable suitably qualified person

Performance

1.9 DESIGN - GENERAL
Signage to comply with NZBC F8/AS1 for escape routes, emergency related safety features, potential hazards and accessible routes and facilities for people with disabilities. Emergency illuminated signs also to NZBC F6/AS1 and AS/NZS 2293.
Glass manifestations to NZS4223.2.

1.10 DESIGN - ADVERTISING
Design the signage to comply with NZS 9201.8.

2. PRODUCTS

Vinyl film graphics

2.1 VINYL FILM DIRECT APPLICATION
Vinyl film to NZS 4223.303.1, cut out to graphic requirements using computer based design, plotting and cutting. Applied by an approved applicator to any appropriate building surface on or off site. Refer to SELECTIONS for substrates, type and colour.

2.2 VINYL FILM ON A PLAQUE
Vinyl film cut out to graphic requirements using computer based design, plotting and cutting. Applied in the factory to a plaque, selected from a wide range of materials. The plaque can be fixed to any appropriate building surface on or off site. Refer to SELECTIONS for type, colour and plaque materials.

Poster holders

2.3 POSTER HOLDERS
Graphic display unit to accept printed matter larger than A4 in size with optional proprietary locking mechanism available for internal use. An aluminium backing panel, a U-channel frame at the top and bottom and a clear non glare acrylic face. Change contents via top access. Refer to SELECTIONS for sizes and system application.

Braille signage

2.4 BRAILLE SIGNAGE
Tactile letters and Braille dots for the blind and visually impaired to AS/NZS 1428.4 - Grade 1 Braille.
Tactile lettering and Braille dots constructed out of various selected sheet materials. Refer to SELECTIONS for options.

Engraved plaques

2.5 ENGRAVED PLAQUES
Engraving materials to graphic requirements using computer based design, plotting and laser engraving/cutting. Engraved recess can be colour filled with enamel. The plaque can be from a wide range of materials and fixed to any appropriate building surface on or off site. Refer to SELECTIONS for type, size, colour and plaque materials.

Individual letters

2.6 INDIVIDUAL LETTERS CUSTOM MADE
Individual letters, numbers or symbols to graphic requirements using computer based design and laser or router cutting. They can also be fabricated from metals and plastics. The letters can be from a wide range of materials and finishes, and fixed to any appropriate building surface on or off site. They can be illuminated in various ways. Refer to SELECTIONS for type, colour, materials, and illumination.

Illuminated signs

2.7 EMERGENCY EVACUATION ILLUMINATED SIGNS
Illuminated exit signs, LED based, to AS/NZS 2293, maintained or non-maintained. Graphics and sign size to NZBC F8/AS1. Refer to SELECTIONS for type, model, mounting.

2.8 ILLUMINATED SIGNS CUSTOM MADE
Illuminated signs custom made to suit sign requirements. Either, face illuminated (box with translucent face) or edge lit (plastic or glass). Refer to SELECTIONS for type, size, mounting.

2.9 VINYL TAPE
Vinyl Tapes with dead stretch properties and chemical and abrasion resistance. The transfer resistant rubber adhesive system is to provide immediate adhesion properties.

2.10 LIQUID ADHESIVES
Structural and non structural strength adhesives to suit system requirements.

3. EXECUTION

Conditions

3.1 DELIVERY
Only deliver to the site signs that can be immediately unloaded in to suitable storage or be placed for direct installation.

3.2 INSTALLATION
Install to manufacturers requirements, firmly and securely in locations specified on drawings.

3.3 FIXINGS
Ensure fixings for signage elements are appropriate for the substrate being fixed into. Fixings are to be sized to suit the load of signage elements and theier associated brackets and framing.

3.3 COORDINATE
Confirm appropriate fixing points needed for each sign have been provided. Do not proceed if the appropriate fixing points or services do not match the sign requirements.

3.4 SUBSTRATES
Ensure substrates and fixings will allow work of the specified standard. Ensure finishes are complete as appropriate.

3.5 MATERIALS, FITTINGS AND EQUIPMENT
New and undamaged, of the required standard and complying with the relevant Standards, Codes and Regulations.

3.6 SIGNAGE LOCATIONS
Signage locations shown on the drawings are their actual location, but subject to verification for final height and position. Clarify the location of all elements and units relative to surrounding materials and finishes. Confirm final positioning.

Application

3.7 MOUNTING SIGNAGE
Locate and fix, ensuring they are positioned as designed, and relative to plumb and level requirements.

Completion

3.8 REPLACE DAMAGED WORK
Replace damaged, cracked or marked elements.

3.9 LEAVE CLEAN
Leave units and fittings clean and in full working order, wiring concealed and fire protected as required and with adjacent surface finishes unmarked. Leave work to the standard required by following procedures.

3.10 ENSURE CORRECT OPERATION
Ensure work is operating correctly, with equipment clean and light bulbs and tubes operational.

3.11 PROTECT
Protect items from damage or marking.

4. SELECTIONS
Refer to Architectural drawings and BNZ Store Design Guidelines / Marketing and Signage V6.1.

6122A ARDEX FLOOR LEVELLING (R1)

1. GENERAL

This section relates to preparing for and carrying out floor levelling work over a range of substrates, prior to the installation of floor coverings.

1.1 RELATED WORK
Refer to:
6512 Carpet Tiles
6612A Advance entry mats and carpet
6411 Polyflor vinyl surfacing

Documents

1.2 DOCUMENTS
Refer to the following related documents when preparing this section:
Ardex floor levelling compounds manual
Ardex Technical Bulletins
AS/NZS 1884 Floor coverings - Resilient sheet and tiles - Installation practices
NZS 3114 Specification for concrete surface finishes
BRANZ BU 330 Thin flooring materials - 2 Preparation and laying
BRANZ BU 360 Floor levelling compounds
Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS
Manufacturer's and supplier's documents relating to work in this section are:

Ardex floor levelling compounds manual

Copies of the above literature are available from Ardex

Web:	www.ardex.com
Telephone:	0-9-296 7690 Auckland
	0-4-568 5949 Wellington
	0-3-373 6900 Christchurch

Warranties

1.4 WARRANTY - MATERIALS
Warrant this work under normal environmental and use conditions against failure of materials.

Warranty period: 10 years
Form of warranty: Ardex standard form

Refer to the general section 1237 WARRANTIES for details of when completed warranties must be submitted.

Requirements

1.5 NO SUBSTITUTIONS
Substitutions are not permitted to any specified Ardex materials, or associated products.

1.6 QUALIFICATIONS
Applicators to be experienced in the application of floor levelling compounds. Application to be strictly in accordance with Ardex technical literature.

1.7 SYSTEMS ARDEX PROJECT
Contact Ardex with any relevant key dates and for a list of approved applicators. The contractor is to contact Ardex prior to starting the contract.

2. PRODUCTS

Materials

2.1 ARDEX MOISTURE BARRIER - HYDREPOXY 300
Provides a moisture barrier over both old and new concrete floors where moisture exceeds New Zealand Standards. Also for curing seepage and dampness problems on internal cement based surfaces of basements, tunnels, lift shafts, below grade retaining walls, car parks and as a primer for floors requiring a degree of consolidation.

2.2 ARDEX P51 PRIMER
Water inhibiting primer, bonding agent and pore closer.

2.3 ARDEX P82 PRIMER
Synthetic resin based primer.

2.4 ARDEX E25 RESILIENT EMULSION / MORTAR ADMIX
Synthetic resin admixture.

2.5 ARDEX A55 LEVELLING COMPOUND
Ultra rapid drying self-levelling and self-smoothing cement with Ardurapid effect - dry internal use only.

2.6 ARDEX K80 INDUSTRIAL WEAR SURFACE
Self-smoothing/levelling compound. Produces wearing surfaces in commercial and industrial areas with Ardurapid effect - dry internal use only.

2.7 ARDEX K15 LEVELLING COMPOUND
Self-levelling and self-smoothing cement with Ardurapid effect - dry internal use only.

2.8 ARDEX K11
Commercial levelling compound - dry internal use only.

2.9 ARDEX K12
Commercial levelling/smoothing compound - dry internal use only.

2.10 ARDEX A45
Rapid hardening and drying internal repair mortar with Ardurapid effect - dry internal use only.

2.11 ARDEX K10
Synthetic resin improved levelling, smoothing & repairing compound - internal use only.

2.12 ARDEX FEATHER FINISH
Cement-based finishing underlayment with Ardurapid effect - dry internal use only.

2.13 ARDEX B12
Internal/external concrete finishing compound.

3. EXECUTION

Conditions

3.1 COMPLY
Comply with all Ardex requirements and instructions.

3.2 STORE
Store materials under conditions that ensure no deterioration or damage.

3.3 CHECK SUBSTRATE
Check that the substrate will allow work of the required standard. Complete any remedial work identified before commencing any floor levelling work.

Application - substrate preparation

3.4 PREPARATION - GENERAL
Ensure that all surfaces are sound, clean and free of oil, grease, wax dirt, asphalt, curing compounds, latex and gypsum compounds, dust, paint, or any contaminants which might act as a bond breaker. Refer to the Ardex floor levelling compounds manual for specific and detailed instructions for various substrates and their condition.

3.5 PREPARE CONCRETE SUBSTRATE
Ensure that floors are solid, with any contaminants, over-watered, frozen or otherwise weak concrete removed mechanically to provide a sound base.

3.6 PREPARE TIMBER SUBSTRATE
Sand, using a course abrasive, to remove all foreign matter and any existing protective coatings to provide a clean, mechanical surface. Vacuum all dust and debris. Do not use solvents, strippers, or cleaners to remove contamination.

3.7 PREPARING SPECIAL SUBSTRATES
Refer to the Ardex floor levelling compounds manual for preparation of non-porous and metal substrates.

3.8 CRACK REPAIR
Repair all dormant cracks in new and old concrete. Contact Ardex for a suitable crack repair system.

Application - priming and floor levelling

3.9 PRIMING
Prepare for and apply primer strictly in accordance with the manufacturer's instructions

3.10 FLOOR LEVELLING
Prepare materials and carry out floor levelling strictly in accordance with the manufacturer's instructions.

Completion

3.11 REMOVE
Remove all debris, unused materials and elements from the site.

3.12 PROTECT
Protect completed work from damage for the period between completion of the floor levelling work and completion of flooring.

4. SELECTIONS
Substitutions are not permitted to the following, unless stated otherwise.

Internal applications

4.1 FLOOR LEVELLING

Location:	Refer to architectural drawings. As required to ensure a level floor
Substrate:	New concrete floor
Primer:	Prepare for and apply primer strictly in accordance with the manufacturer's instructions
Ardex product:	Ardex K15

6141 GROUND, SEALED OR POLISHED CONCRETE (R1)

1. GENERAL

This section relates to the provision of a high quality concrete finish to new or existing concrete surfaces incorporating mixed design aggregates and plain concrete.
It includes:
- plain polish
- grind and seal
- grind and polish

1.1 RELATED WORK
Refer to appropriate concrete section(s) for mix design and placement.

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.
The following definitions apply specifically to this section:

Plain polish:	The concrete is mechanically ground just enough to clean it (virtually no aggregate exposed) and clear sealed.
Grind:	The concrete is mechanically ground to expose aggregate
Grind and seal:	The concrete is mechanically ground and clear sealed.
Grind and polish:	The concrete is mechanically ground, then hardened, then polished, then sealed and finally burnished.

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZS 3114	Specification for concrete surface finishes
AS/NZS 3661.1	Slip resistance of pedestrian surfaces - Requirements

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents relating to this part of the work:
Appendix 2. Lesa Polished Concrete Floor Specification

Manufacturer/supplier contact details
Company: Lesa Systems Ltd
Web: www.lesasystems.co.nz
Email: stu@lesasystems.co.nz
Telephone: 09 526 7135

Requirements

1.5 QUALIFICATIONS
Workers to be experienced, competent and familiar with the materials and techniques specified.

1.6 PROVIDE SAMPLE
Provide a sample of specified finishes before commencing work. Sample to be of similar mix to the proposed construction. Refer to SELECTIONS. Keep sample on site until concrete polishing is completed.

1.7 TECHNIQUE DISCUSSION - CONCRETE PLACEMENT
Advise the concrete placer of the areas scheduled for ground/polished finishes. Ensure the placed concrete to be ground is not overworked resulting excess sand /cement pasts at the concrete surface

1.8 TECHNIQUE DISCUSSION AND FINISH STANDARD
Before commencing work, arrange a meeting to confirm the method of carrying out the work. Select an area on site, grind and finish the selected area to achieve the agreed

finish. When agreement is reached, this then becomes the finish standard for the balance of the work.

1.9 SAMPLE SLIP RESISTANCE
Test sample to AS/NZS 3661.1 for slip resistance, to comply with NZBC D1/VM1 and NZBC D1/AS1, 2.0, **Level access routes**; 3.14 **Slip resistance** for ramps and 4.14 **Stair treads**.
- when in place on a level access route, to have a mean coefficient of friction (μ) not less than 0.4.
- when in place on a sloping access route, to have a coefficient of friction (μ) not less than 0.4 + 0.0125S (S = slope of surface expressed as a percentage).
- when in place on stair treads, to NZBC D1/AS1, Table 2.

Provide certificates and any other evidence that the surface complies with the standard of performance specified.

2. PRODUCTS

2.1 PENETRATING SEALER
Refer to SELECTIONS.

2.2 SURFACE SEALER
Refer to SELECTIONS.

2.3 GROUT
Cement base slurry grout.

3. EXECUTION

Conditions

3.1 CONFIRM CONCRETE SURFACE
Confirm concrete surface is of the required standard for the concrete polishing and finishing processes. Do not proceed if placed concrete is not capable of delivering the specified finish. Seek written direction as to what action is required.

3.2 PLACING THE CONCRETE
Place concrete with light vibrate only, do not over vibrate. The concrete pavement or floor must be to NZS 3114:1987, a Class U3 finish. Very light power float (1 or 2 light passes).

3.3 PROTECTION
Cover glass, anodised aluminium and other surfaces to protect from damage that is caused from cementitious dust.

Application - grind and polish

3.4 GRIND TYPE - GRIND AND POLISH
For type and depth of grind refer to SELECTIONS.

3.5 FIRST GRIND - GRIND AND POLISH
For new slabs grind 7 -10 days minimum after placing the concrete. Grind the floor to expose the aggregate using a 20/40 grit steel bonded diamond. Aggregate should be consistent over the surface.

3.6 APPLY DENSIFIER - GRIND AND POLISH
Apply selected densifier to manufacturer's requirements.

3.7 SECOND GRIND - GRIND AND POLISH
When the building is appropriately enclosed, linings completed before fittings, fixtures and skirtings are installed, grind the residue off the floor and start polishing the surface using a 50 grit resin bonded diamond, progressing by approximately doubling the grit each pass up to 800 to 3000 grit resin bonded diamond, depending on gloss level required. Refer to SELECTIONS for gloss levels.

3.8 APPLY CONCRETE SEALER - GRIND AND POLISH
Apply selected concrete penetrating sealer to manufacturer's requirements.

3.9 BURNISH
Burnish to remove final residue and polish with purpose made pad.

Application - holes and cuts

3.10 GROUT HOLES
Grout slurry the air holes left in the concrete surface. Polish to remove grout within 24 hours of application using a 120 grit diamond.

3.11 GROUTING CONCRETE CUTS
Grout construction cuts and decorative cuts. Polish to remove excess grout within 24 hours of application using a 120 grit diamond.

Protect slab

3.12 PROTECT SURFACE AFTER FIRST GRIND
Fully cover and protect from damage after the first grind and once the building is enclosed. Ensure material allows the floor to breath and is non-staining.

3.13 PROTECT FINISHED POLISHED CONCRETE
Protect floor from damage. Provide protection by laying breathable, non staining sheet material for the period between completion of polishing and completion of the contract works.

Completion

3.14 LEAVE
Leave work to the standard required by following procedures.

3.15 REMOVE
Remove debris, unused materials and elements from the site.

4. SELECTIONS

Grind and polish

4.1 GRIND AND POLISH
Alternative products are to be submitted separately with tender including full technical details showing compliance/comparison with standard in specification and subject to further review if necessary.

Final concrete finish must be tested against AS/NZS 3661.1, AS/NZS 4586 & 4663 for slip resistance, and to comply with NZBC D1/VM1 and NZBC D1/AS1, 2.0, Level access routes. Concrete finish must have sufficient slip resistance when wet as a result of testing.

Refer to Appendix 01. Lesa Polished Concrete Floor Specification for Selections and Execution.

Location:	Afterhours lobby area
Time first grind:	within 14 days after pour
Depth of grind:	Light grind 1mm to 2mm (salt and pepper finish)
Finish level:	400 grit semi gloss finish
Densifier:	Pentra-Sil (Refer to Appendix 2. Lesa Polished Concrete Floor Specification)
Jointing filler:	Lesa SPAL-PRO-RS88 Rapid Set Polyurea Joint Filler - Intellectual Grey(Refer to Appendix 2. Lesa Polished Concrete Floor Specification)

6411P POLYFLOR® VINYL SURFACING (R1)

1. GENERAL

This section relates to the supply and installation of Polyflor® vinyl surfacing complete with skirtings, nosings, trims and edgings and static control sheet to floors.
It includes:
- PVC sheet

Documents

1.1 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC D1/VM1	Access routes
NZBC D1/AS1	Access routes
NZS/AS 1884	Floor coverings - Resilient sheet and tiles - Installation practices
AS/NZS 3661.1	Slip resistance of pedestrian surfaces - Requirements
IEC 61340.4.1	Electrostatics - Part 4.1: Standard test methods for specific applications - Electrical resistance of floor coverings and installed floors
EN 1081	Resilient Floor Coverings - Determination of the Electrical Resistance
BRANZ BU 330	Thin flooring materials - 2 Preparation and laying

Manual of practices and conditions for the NZ flooring industry: Resilient flooring

1.2 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents relating to this part of the work:
Polyflor® technical information manual

Manufacturer/supplier contact details

Company:	James Halstead Flooring New Zealand Ltd
Web:	www.polyflor.co.nz
Telephone:	0-9-269 1110 or 0800 765 935

Warranties

1.3 WARRANTY - INSTALLER/APPLICATOR
Provide an installer/applicator warranty:

1 year:	For work under normal environmental and use conditions against failure.

- Provide this warranty on the installer/applicator standard form.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

1.4 WARRANTY - MANUFACTURER/SUPPLIER - STANDARD
Provide a material manufacturer/supplier warranty:

10 years:	For materials

- Provide this warranty on the manufacturer/supplier standard form.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

1.5 WARRANTY - MANUFACTURER/SUPPLIER - POLYFLOR TOTAL SYSTEM
Provide a material manufacturer/supplier warranty:

15 years:	For materials covered by the Polyflor Total System

- Provide this warranty on the manufacturer/supplier standard form.
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Requirements

1.6 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and products.

1.7 QUALIFICATIONS
Vinyl laying to be carried out by competent, experienced layers familiar with the materials and techniques specified.

1.8 SAMPLES
Submit on request samples of sheet, tile and accessories offered sufficient to show the pattern and the range of colour finish.

1.9 POLYFLOR TOTAL SYSTEM
To the project specific, written Polyflor Total System Specification from James Halstead Flooring NZ and this section.

Performance

2. PRODUCTS

Materials - flooring

2.1 VINYL SHEET
Polyflor® high performance homogeneous monolayer flexible PVC sheet flooring, and **Polyflor®** heterogeneous vinyl sheet flooring.

2.2 COVINGS

Commercial:	Pencil cove or fillet cove as specified with butterfly mitres to all external and internal corners. Fillet cove for safety flooring.

2.3 WALL AND FLOOR VINYL JOINING STRIP
Wet wall white PVC floor to wall finishing strip.

2.4 TRIMS AND EDGING
PVC as required to complete the work.

Accessories

2.5 PRIMERS
For general purpose, Kiesel Okatmos EG20, solvent free, very low emission primer.
For special areas, Kiesel Okapox GF, solvent and water free, very low emission, thin two component epoxy primer.
To the adhesive manufacturer's requirements for the particular substrate and location.

2.6 SCREEDS

Kiesel F333	For minor imperfections, patching and ramping
Kiesel R300S	For ramping, patching and forming falls (unlimited depth limitation)
Kiesel BF850	Bulk fill (5mm - 100mm) for filling large holes and uneven floors
Kiesel FS101	Levelling compound (0 - 5mm)
Kiesel P200 Plus	Levelling compound (1mm - 30mm)
Kiesel S444	Levelling compound for wood substrates (3mm - 15mm)

2.7 ADHESIVE
Standard acrylic and waterproof adhesives to suit the material and substrate and to the vinyl manufacturer's requirements.

General purpose: Kiesel Okatmos Megastar, Kiesel Okatmos Star 100 or Okamul K5 vinyl adhesive

Wet area: Kiesel Okatmos PU. polyurethane adhesive
VC tile: Kiesel Okatmos Star 150
Vinyl/Acoustifoam: Kiesel Okatmos Megastar or Kiesel Okatmos Star 100 (for over Acoustifoam when using resilient vinyl)
LVT: Kiesel Star 100 or Kiesel Star 110 (high sunlight areas)
Conductive Sheet Vinyl: Kiesel Megastar L Conductive adhesive
Polyclad: Kiesel Okatmos Megastar, Kiesel Okatmos Star 100 or plasticiser resistant contact adhesive.

2.8 THERMOWELDING
Polyflor® supplied colour matched weld rod.

3. EXECUTION

Conditions

3.1 GENERALLY
To manufacturer's requirements and NZS/AS 1884.

3.2 STORAGE
Accept rolls of sheet, packages of tiles and accessories undamaged and dry. Store rolls upright with other material on level surfaces in non-traffic, non-work areas that are enclosed, clean and dry.

3.3 HANDLING
Avoid distortion, stretching, marking and damage to edges while shifting unrolling and handling sheet, tiles and accessories.

3.4 PREPARATION
Check each individual colour supplied is from the same batch. Follow **Polyflor®** requirements for preparatory conditioning of rolls and working temperatures and conditions before, during and after laying the selected vinyl. Protect work from solar heat gain. Switch off under-floor heating during and for 48 hours either side of the work period.

3.5 DO NOT START
Do not start work before the building is enclosed, all wet work is complete, doors are hung and lockable, finishes and trim complete and good lighting is available.

3.6 INSPECT
Inspect the substrate to ensure it is a suitable finish.

3.7 PROTECTION
Protect adjoining work surfaces and finishes during the vinyl installation.

3.8 LAYING GENERALLY
Carry out the whole of this work to NZS/AS 1884, BRANZ BU 330, the Manual of practices and conditions for the NZ flooring industry: Resilient flooring and the flooring manufacturer's requirements.

3.9 TECHNIQUE
Before beginning the installation confirm the proposed layout of material, location of seams and other visual considerations of the finished work.

Application - substrate preparation

3.10 PREPARING NEW CONCRETE
Check moisture content to NZS/AS 1884, Appendix A and do not commence laying vinyl until readings for the whole area show 75% relative humidity or less.

Clear substrate of all debris, clean off surface contamination and carry out surface repairs using a proprietary levelling compound. Carefully feather out at perimeters of repaired areas. Grind level, then vacuum to remove dust.

3.11 APPLYING PRIMER FOR VINYL SHEET
Prime porous plaster, concrete and timber substrates to the adhesive manufacturer's requirements.

Application - Laying

3.12 APPLICATION OF ADHESIVE
Apply approved adhesive either by trowel and/or "wetted" roller as required by the vinyl manufacturer and without trowel marks after setting. Follow requirements for open time, taking note of the substrate porosity, ambient temperature and relative humidity. Remove excess adhesive as the work proceeds using required techniques.

3.13 LAYING FOAM BACKING SHEET
Plan layout of foam to run in the same direction as the vinyl upper layer with seams offset by at least 150mm from the seam of the vinyl sheet. Lay sheet shiny side up and fix with Kiesel Okatmos Megastar or Kiesel Okatmos Star 100 to dry areas or Kiesel Okatmos PU. to wet areas. Overlap seams and cut through to achieve tight joints. Leave to dry for 24 hours with traffic restricted during this period.

3.14 LAYING FLOOR SHEET
Roll out, cut, leave to condition and install sheet vinyl to manufacturer's requirements. Ensure there are no air bubbles or twisting and that the seams are kept clear of adhesive. Immediately sheet is adhered roll with a 45 kg roller.

3.15 WELDING FLOORS
After grooving, thermoweld seams, heating the sheet and weld rod to a sufficient temperature to melt and fuse them together in a single mass. Trim and glaze the weld to leave a smooth, flush surface with the sheet. The width of the weld to be 2.66mm.

3.16 CROSS JOINS
Plan and allow cuts to avoid cross joins. Review position before proceeding if cross joins are unavoidable. Cross joins are not acceptable in wet areas.

3.17 COVING VINYL
Pencil cove or fillet cove flooring to the specified height and finish off as detailed. Fillet cove for safety floors.

3.18 COMPLETE MITRES
Perform butterfly method to internal and external mitres, allowing to thermoweld mitres.

3.19 INSTALLING ACCESSORIES
Scribe fit, adhere or otherwise fix true to line and face to **Polyflor®** requirements for each particular location.

Completion

3.20 REPLACE
Replace damaged or marked elements.

3.21 CLEAN AND POLISH
Vacuum off, damp mop with a low foam neutral detergent, with a pH level of 7 to 8. Allow to dry and finally buff with a rotary machine using suitable pads at 300 rpm. Use polymer polishes only where approved by **Polyflor®**. Leave vinyl flooring surfaces free of adhesive, dirt and debris and to the standard required by following procedures.
Do not polish or seal vinyl safety flooring.

3.22 REMOVE
Remove debris, unused materials and elements from the site.

3.23 PROTECT
Protect completed work from damage for the period between completion of laying and completion of the contract works.

4. SELECTIONS

For further details on selections go to www.polyflor.co.nz.
Substitutions are not permitted to the following, unless stated otherwise.

4.1 VINYL SHEET

Manufacturer:	Polyflor
Type:	2000 PUR
Colour/number:	Shadow
Gauge:	2mm
Location:	Refer to architectural drawings.

4.2 COVING

Height:	100mm

Accessories

4.3 TRIMS AND EDGING

Profile:	Ullrich alluminium coving trim UA1491
Colour:	mill finish
Profile:	Tredsafe DT036 Trim
Colour:	mill finish

4.4 FLOOR LEVELLING COMPOUND

Brand/Type:	Ardex K15 or Kiesel

4.5 ADHESIVE

Brand/Type:	Kiesel

4.6 PRIMER

Brand/Type:	Kiesel

6512 CARPET TILES (R1)

1. GENERAL

This section relates to the supply and installation of carpet tiles.
It includes:
- nylon
- wool fibre
- polymer-backed

1.1 RELATED WORK
Refer to:
6122A Ardex Floor levelling
6192 FLOORING SUBSTRATE PREPARTION for preparation of flooring substrate.

1.2 ABBREVIATIONS AND DEFINITIONS
Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

Documents

1.3 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:
AS/NZS 2455.1 Textile floor coverings - installation practice - General
AS/NZS 2455.2 Textile floor coverings - installation practice - Carpet tiles

1.4 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents relating to this part of the work:

Interface Installation Manual
Interface Carpet Care manual
Interface warranty

Manufacturer/supplier contact details
Company: Inzide Commercial Ltd
Web: http://inzide.co.nz
Email: enquiries@inzide.co.nz
Telephone: 09 441 9850

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER
Provide a material manufacturer/supplier warranty:

15 years: In accordance with terms (refer to interface warranty)

- Provide this warranty on the manufacturer/supplier standard form.
- Commence the warranty from the date of practical completion of the contract works.

Refer to **Interface Warranty** (in Manufacturers Information) for warranty requirements.

Refer to the general section 1237 WARRANTIES for additional requirements.

1.6 WARRANTY - INSTALLER/APPLICATOR
Provide an installer/applicator warranty:

2 years: The flooring contractor shall furnish a written warranty that the flooring and carpet installation and associated builders work will remain free from any defects as listed below after completion.Warranty shall commence from the date of practical completion and shall be for both

materials and workmanship and shall cover the replacement of any defective materials and the reinstatement of any work found to be defective through faulty workmanship or materials.

- Provide this warranty on the installer/applicator standard form.
- Commence the warranty from the date of practical completion of the contract works.

Requirements

1.7 QUALIFICATIONS
Carpet tile layers to be experienced, competent trades people familiar with the materials and techniques specified.

1.8 MOISTURE CONTENT OF CONCRETE SLAB
Concrete slab is be cured and dried to a relative humidity of not exceeding 75% or until the moisture content does not exceed 5.5%, in accordance with AS/NZS 2455.1, refer to section 6192 FLOORING SUBSTRATE PREPARATION.

1.9 RESERVE MATERIAL
Supply reserve carpet tiles, suitably packaged for delivery and storage. Refer to SELECTIONS.

2. PRODUCTS

Materials

2.1 CARPET TILES
Nylon/wool fibre fusion-bonded to a polymer, PVC or bitumen backing.

2.2 ADHESIVE
A pressure release adhesive. Refer to SELECTIONS for brand.

3. EXECUTION

Conditions

3.1 INSPECTION
Before starting work inspect the substrate to ensure that it will allow work of the required standard and that fittings and fixtures, around which the carpet is to be scribed, are in place.

3.2 PROTECTION
Protect adjoining work surfaces and finishes during the carpet installation.

3.3 LAYOUT
Plan the general layout to:
- to conform with any special pattern requirements as detailed
- to maximise perimeter and cut module sizes and
- subject to any specific design instructions, to ensure that tiles are laid parallel to the longest wall.

3.4 TEMPERATURE
Floor temperature: Minimum 16°C.
Concrete pH: No more than 10.0.
Carpet tiles: Conditioned at 16°C for a minimum of 24 hours prior to installation.

3.5 HANDLE AND STORE
Keep carpet tiles dry. Protect from damage.

Application - substrate preparation

3.6 PREPARING NEW CONCRETE FLOOR
Refer to Interface Installation Manual

Refer to 6192 FLOORING SUBSTRATE PREPARATION for preparation of flooring substrate.

Remove paint, sealer, grease, oil, adhesive and any harmful materials, especially bituminous based substances which are not compatible with GlasBac modular carpet products. All existing adhesive must be removed from the floor. Fill and level all cracks and holes. Bring surface up to specification as in Appendix 1 from Interface Installation Manual using an approved latex levelling compound eg. Ardex K15 or equivalent, in accordance with manufacturer's directions. This levelling compound needs to be compatible with the backing system.

Notwithstanding provision in other sections of the specification it shall be the responsibility of this trade to ensure that all surfaces including underlays are in a suitable condition to enable a first class finished job.

The contractor shall clean all surfaces, remove imperfections by filling and the like and apply such sealers, neutralisers or other materials as are necessary in accordance with sound trade practise and all such preparatory work shall be deemed to be included in the contract.

If, in the opinion of the floor coverings subcontractor, any portions of the concrete floors are such that they will not provide a first class base for the floor covering material, they shall then be ground with a floor grinding machine, hacked back, replaced or otherwise made good by the contractor at his own expense, to the complete satisfaction of the floor covering subcontractor and the architects.

The laying of any flooring shall be taken as acceptance by the flooring contractor that the floor surface is satisfactory to produce a first class finished job.

Application - carpet tile laying

3.7 LAYING GENERALLY
Lay in accordance with AS/NZS 2455.1, AS/NZS 2455.2 and the carpet tile manufacturer's own installation instructions.

All joints shall be neatly and tightly made so as to be as nearly invisible as possible. At all wall lines fit carpets neatly and tightly up to the skirtings or fittings, over smooth edge.

All carpet shall be planned and laid for best wear and pattern appearance and no end jointing of carpet will be allowed other than at doorways where roll length limitations make continuation impossible.

A plan for the laying of the carpet on each floor shall be approved by the Architects prior to any laying work on site being commenced.

3.8 LAYING DIRECTION
Refer to architectural drawings.

3.9 CUTTING OF TILES
Cut tiles from the back, using the carpet tile manufacturer's required cutting technique.

Completion

3.10 ROUTINE CLEANING
Carry out routine trade cleaning of this part of the work including periodic removal all debris, unused and temporary materials and elements from the site.

3.11 DEFECTIVE OR DAMAGED WORK
Repair damaged or marked elements. Replace damaged or marked elements where repair is not possible or will not be acceptable. Leave work to the standard required for following procedures.

3.12 PROTECTION

Provide the following temporary protection of the finished work:

It shall be the responsibility of the contractor to protect finished carpeted areas from marking and damage.

The carpet layer shall be responsible for the care of the carpet during handling and laying and shall make good or replace any carpet marked or damaged prior to its being laid finally in place.

3.13 SPECIAL PROTECTION

Cover the complete carpeted area with self adhesive clear plastic protective film.

4. SELECTIONS

Substitutions are not permitted to the following, unless stated otherwise.

Materials

4.1

Location:	FOH - Refer A602 - Carpet Tile Layout	
Product:	Inteface NZ Carpet tiles	
Installation:	Specifically designed layout. Refer A602- Fit Out - Carpet Tile Layout	
Colour:	Assorted	
	Carpet Tile 1	Interface 'Urban Retreat Planks' Carpet Tile - Stone #7267-012-000
	Carpet Tile 2	Interface 'Urban Retreat Planks' Carpet Tile - Granite #7267-015-000
	Carpet Tile 3	Interface 'On Line' Carpet Tile - Indigo #7335-013-000
	Carpet Tile 4	Interface 'On Line' Carpet Tile - Lapis #7335-013-000
	Carpet Tile 5	Interface 'Urban Retreat Planks' Carpet tile - Navy #7267-010-000

4.2

Location:	FOH – Refer A601 - Fit Out - Floor and Wall Finishes Plan
Product:	Advance Entry Mat
Range:	Coral Brush Active
Colour:	Black Code: CBA 5830
Installation:	Flush Laid Recessed

4.3

Location:	BOH Refer A602 - Carpet Tile Layout
Product:	Interface NZ Carpet Tiles
Installation:	Specifically designed layout. Refer A602 - Fit Out - Carpet Tile Layout
Colour/Style:	Carpet Tile 2 Interface 'Urban Retreat Planks' Carpet Tile - Granite #7267-015-000

4.3 ACCESSORIES

TRIMS AND EDGING

Location:	For uncovered floor to carpet transition areas (after hours lobby area)
Profile:	Tredsafe DT032
Finish:	Natural Satin

Location:	For vinyl to carpet transition
Profile:	Tredsafe DT036
Finish:	Mill finish

6612A ADVANCE ENTRY MATS AND CARPET (R1)

1. GENERAL

This section relates to the supply and installation of **Advance** entry mats and carpet.
It includes:
- modular / custom-made entrance matting systems
- custom-made entrance carpets (in sheet and tile format)
- associated trims and frames

1.1 RELATED WORK
Refer to
6141 Ground sealed or polished concrete
6122A Ardex floor levelling
6129 Flooring substrate preparation

Documents

1.2 DOCUMENTS
Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:
NZBC C/AS1-AS7 Protection from fire
ISO 9239.1 Reaction to fire tests for floorings - Determination of the burning behaviour using a radiant heat source.

1.3 MANUFACTURER/SUPPLIER DOCUMENTS
Manufacturer's and supplier's documents relating to this part of the work:
Advance Technical Product Literature
Advance Zeno Protect Fire Test Report
Data Sheet Zeno Protect Excellence

Manufacturer/supplier contact details
Company: **Advance Flooring Company**
Web: www.advancefloors.co.nz
Email: sales@advancefloors.co.nz
Telephone: 09 634 4455

Warranties

1.4 WARRANTY - MANUFACTURER/SUPPLIER
Provide a material manufacturer/supplier warranty:
5 years: For materials

- Provide this warranty on Advance standard form.
- Commence the warranty from the date of practical completion of the contract works.

1.5 WARRANTY - INSTALLER
Provide an installer warranty:
1 year: For installation

- Provide this warranty on the installer standard form.
- Commence the warranty from the date of practical completion of the contract works.

Requirements

1.6 NO SUBSTITUTIONS
Substitutions are not permitted to any specified system, or associated components and products.

1.7 QUALIFICATIONS
Entrance matting and carpet installers to be competent, experienced workers familiar with the materials and techniques specified.

1.8 RESERVE MATERIAL
Supply reserve matting, suitably packaged for delivery and storage. Refer to SELECTIONS for details.

Performance

1.9 FIRE SAFETY
Product tested to ISO 9239.1 and acheives the minimum critical radiant flux requirements of NZBC C/AS2-AS6, Table 4.2, Critical radiant flux requirements for flooring.
Requirement not applicable if product is non-combustible, or if area of product has an aggregate surface area of not greater than 5m².

2. PRODUCTS

Materials - entry mat

2.1 ZENO PROTECT EXCELLENCE CARPET
Zeno Protect Excellence entry carpet, made of specially textured polyamide yarns tufted into an impervious vinyl backing, with a thickness of 9.7mm. Available in rolls 2m wide x
2.1 M LONG AND A RANGE OF PATTERNS AND COLOURS. REFER TO SELECTIONS.

Components

2.7 ENTRY CARPET ALUMINIUM FRAME AND RAMPING
2.2 PROPRIETARY ADVANCE ALUMINIUM FRAME AND RAMPING. REFER TO SELECTI ONS FOR OPTIONS.

Accessories

2.7 ADHESIVE - FOR BONDING ENTRY CARPET TO SUBSTRATE
Adhesive suitable for bonding to vinyl to the particular substrate. Refer to SELECTIONS for options.

3. EXECUTION

Conditions

3.1 INSPECTION
Before starting work inspect the substrate to ensure that it will allow work of the required standard where the matting/carpet/tiles are to be installed.

3.2 PROTECTION
Protect adjoining work surfaces and finishes during the installation.

3.3 LAYOUT
Plan the general layout to:
- to conform with pattern orientation requirements as specified
- to maximize perimeter and mat/carpet/tiles sizes

3.4 TEMPERATURE
Floor temperature: Minimum 16°C.
Concrete pH: No more than 10.0.

3.5 HANDLE AND STORE
Keep matting dry. Protect from damage.

Installation - substrate preparation

3.6 PREPARE FLOOR SUBSTRATE
Refer to 6192 FLOORING SUBSTRATE PREPARATION for preparation of flooring substrate.
Must be over dry, clean, firm, smooth, even surface; free of cracks, dirt, oil, or loose paint.

6700R RESENE PAINTING GENERAL (R1)

1. GENERAL

This section relates to the general matters related to **Resene** painting work.

1.1 RELATED WORK

Refer to **RESENE** INTERIOR PAINTING

1.2 ABBREVIATIONS AND DEFINITIONS

Refer to the general section INTERPRETATION AND DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

MPNZA	Master Painters New Zealand Association Inc.

Documents

1.3 DOCUMENTS REFERRED TO

Documents referred to in this section are:

Health and Safety in Employment Act 1992

MPNZA	Specification manual

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.4 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer's and supplier's documents related to this section are:

Resene	One-Line specifications and product data manual (hard copy or at www.resene.co.nz)
Resene	Putting your safety first

Copies of the above literature are available from **Resene**

Telephone: 0800 **RESENE** (0800 737 363)

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER

Warrant this work under normal conditions of use against failure referring to the **Resene** Promise of Quality in the **Resene** One-Line specifications and product data manual.

Requirements

This painting specification is written based on information available at the time of writing.

1.6 NO SUBSTITUTIONS

Substitutions are not permitted to any specified **Resene** coating system, or associated components and products. Do not combine paints from different manufacturers in a paint system.

If in the applicator's own expertise and judgement an amendment to this specification is required, or where a substrate preparation, or required painting system is not covered in this specification, this shall be brought to the attention of the contract administrator and any amendment agreed before work proceeds any further.

1.7 QUALIFICATIONS

Painters to be experienced competent workers, familiar with the materials and the techniques specified and with the **Resene** coating systems and be members of the Master Painters New Zealand Association Inc.

The applicator is to have the necessary skill, experience and equipment to undertake the work. The applicator remains responsible for ensuring proper completion of the work.

Painters to be selected from the **Resene** Eco.Decorator programme. The **Resene** Eco.Decorator programme is designed to recognise a nationwide network of environmentally responsible, quality focussed painting contractors.
Refer to www.resene.co.nz/ecodecorator.htm for a list of Eco.Decorators in your area.

1.8 CONTROL SAMPLES
Prepare samples of the finished work, including the specified preparation. Refer to SELECTIONS for location and type. Obtain approval in writing of the appearance before proceeding. Use the **Resene** Architectural Sample Box as a basis of standard where appropriate.

1.9 COLOUR SAMPLES
Control reference: Check colours to Resene colour samples prior to application and keep the Resene colour samples on site as a control reference. Colour matches are not permitted as they will differ in appearance, durability and performance to the original selected colour over the life of the coating. Samples of Resene colours may be ordered online from https://secure.clearfield.com/resene/SelectChart.asp?productType=3 or by calling 0800 RESENE (737 363). Use the Resene Architectural Sample Box as a basis of standard where appropriate.

1.10 PRIOR TO WORK COMMENCING
Before any work commences painters should verify, with Architects or specifying authority, that their paint matches a previously supplied standard card or panel. Differently coloured paints will vary in price, opacity and durability. Resene normally only specify two coats of colour but with certain colours, such as yellows and oranges, three coats may be needed. Refer to SELECTIONS for location and type.

1.11 SUPERVISED CONTROL SAMPLES
Prepare samples of the finished work including the specified preparation. Refer to SELECTIONS for location and type. Make arrangements for the supervision of the relevant stages. Obtain written approval before proceeding.

Supervised control samples may, after written approval, be used for comparative testing of dry film thicknesses of the complete coating systems.

1.12 HEALTH AND SAFETY
Refer to and comply with the requirements of the Health and Safety in Employment Act 1992 including the obligation to:

- Eliminate hazards and if hazards cannot be eliminated or isolated, then minimise the hazards in this work by using the proper equipment and techniques as required by the MPNZA Painters hazard handbook and **Resene** Putting your safety first handbook.
- Supply protective clothing and equipment.
- Inform the contractor as well as the employees and others on site of those hazards and put in place procedures for dealing with emergencies.

1.13 SAFETY DATA SHEETS
Obtain from **Resene** (phone 0800 **RESENE**, or www.resene.co.nz) the safety data sheet for each product used and comply with the required safety procedures. Keep sheets on site.

Performance

1.14 RESENE INSPECTION
Permit representatives of **Resene** to inspect the work in progress and to take samples of their products from site if requested. **Resene** will take care when inspecting the work, but does not accept any responsibility for the proper completion of the work before or after such inspection.

1.15 INSPECTION OF THE WORK
Inspection of the whole of the work at each of the stages set out in SELECTIONS may be made. Agree on a programme that will facilitate such inspection, including notification when

each part and stage of the work is ready for inspection.

2. PRODUCTS

Materials

2.1 MATERIALS GENERALLY
Do not combine paints from different manufacturer's in a paint system.

Use only Resene products (which are guaranteed for consistency and performance under ISO 9001 and APAS) prepared, mixed and applied as directed in the Resene One-Line Specifications and Product Data Manual. This specification has been written using where practical and available both low/no VOC and Environmental Choice approved products.

2.2 EXPOSED DARK COLOURS
Darker colours in areas of high sun exposure place significant stress on the coating and substrate. **Resene** 'Cool Colour' technology reducing heat absorption of a wide range of colours. Contact your local Resene Representative or visit www.resene.co.nz for more information. View a list of Resene colours available as Resene Cool Colours online at www.resene.co.nz/swatches/index.php.

2.3 THINNERS/ADDITIVES
Use only if and when expressly directed by Resene for their particular product in a particular application. Always wear gloves when handling any solvents including turpentine as harmful chemicals may be absorbed into the body through the skin.

Accessories

2.4 ACCESSORIES
Contact your local **Resene ColorShop** for a full range of accessories and usage advice.

3. EXECUTION

Conditions

3.1 EXECUTION
To conform to required trade practice, which shall be deemed to include those methods, practices and techniques contained in the Master Painters New Zealand Association Inc. Specification manual.

3.2 TREATED SURFACES
Where surfaces have been treated with preservatives or fire retardants, check with the treatment manufacturer that coating materials are compatible with the treatment and do not inhibit its performance. If they are not compatible, obtain instructions before proceeding.

3.3 ANCILLARY SURFACES
The descriptions of areas in schedules and elsewhere are of necessity simplified. Coat ancillary exposed surfaces to match similar or adjacent materials or areas, except where a fair-faced natural finish is required or items are completely prefinished. In cases of doubt obtain written instructions before proceeding.

3.4 HARDWARE
Do not paint hinges or hardware that cannot be removed. Before commencing work carefully remove hardware, fixtures and fittings, set aside where they cannot be damaged or misplaced and replace on completion. Refer to SELECTIONS for hardware, fixtures and fittings for removal.

3.5 PROTECTION
Supply, lay and fix dropsheets, coverings and masking necessary to protect adjoining, fixtures, fittings and spaces from paint drops, spots, spray and damage.

Application - preparatory work

3.6 SURFACE PREPARATION

Refer to the **Resene** One-Line specifications and product data manual for surface preparation sheets (or obtain them by phoning 0800 **RESENE**, or at www.resene.co.nz) listed in the materials systems schedule clauses. Carry out the preparatory work required by them for each of the substrates.

3.7 LEAD-BASED PAINT, ASBESTOS

Handle cautiously lead-based paint and asbestos, if present, as outlined in the preamble of the **Resene** One-Line specifications and product data manual and the Putting your safety first brochure.

3.8 SHARP EDGES, CRACKS AND HOLES

Remove and/or repair sharp edges, cracks and holes if present, as outlined in the preamble of the **Resene** One-Line specifications and product data manual.

Elastomeric sealants, if used, should not be painted. The paint film will not match the flexibility of the sealant and may severely limit its effectiveness.

3.9 REMEDIAL WORK

If any substrate or surface, that even with the preparation work called for in this section, cannot be brought up to a standard that will allow painting or clear finishing of the required standard then do not proceed until remedial work is carried out.

3.10 GAP FILLING

Make good cracks, holes, indented and damaged surfaces. Use suitable gap fillers to match the surface being prepared. Any special priming requirements of the fillers must be satisfied. Allow to dry or set before sanding back level with the surface. Prime or seal timber before using putty.

Exterior and wet areas: Use only Portland cement base or water-insoluble organic base gap fillers.

3.11 OFF-SITE WORK

Carry out this work under cover in a suitable environment with suitable lighting. Store items, both before and after coating, in a clean, dry area protected from the weather and mechanical damage, properly stacked and spaced to allow air circulation and to prevent sticking.

3.12 PRIMING JOINERY

Pre-treat any cut surfaces of preservative treated timber before priming. Ensure L.O.S.P. treated joinery has dried sufficiently to lose solvent odour. Pre-treat bare timber with **Resene** TimberLock (see Data Sheet D48) to improve the durability of subsequent coats.

Liberally coat end grain, allow to soak in and then recoat.

3.13 CONCEALED JOINERY SURFACES

Where off-site coatings are specified they must be applied to surfaces including those concealed when incorporated into the building.

3.14 CONCEALED METAL SURFACES

Apply primer to suit the coating system to surfaces which will be concealed when incorporated into the building.

3.15 EXTERNAL DOORS

Prime or seal and paint bottom edges before hanging.

3.16 BEAD GLAZING

Stained, varnished, or painted joinery to have the first two coats, or the primer and one undercoat, applied to rebates and beads before glazing.

3.17 PUTTY FRONTING

According to the putty manufacturer's instructions allow putty to set, then prime with **Resene** Wood Primer (see Data Sheet D40). Fully protect the putty by completing the

Resene coating system as soon as it is sufficiently firm.

Application - generally

3.18 PAINTING GENERALLY
Comply with the **Resene** One-Line specifications and product data manual data sheets and the additional requirements of this work section.

Ensure large wall areas that require more than one container of paint per coat, have enough paint boxed (mixed) together to complete the final coat. This will not apply if a single factory batch of paint, rather than shop tinted paint, is applied.

3.19 MIXING
Although generally supplied ready-mixed, thoroughly mix paints. Lift any settled pigment and ensure the paint is homogenous.

3.20 ENVIRONMENT
Defer painting of exterior surfaces until weather conditions are favourable - warm dry days without frost or heavy dews. Avoid painting in direct sunlight any surfaces that absorb heat excessively. As far as possible apply paint in the temperature range 15°C to 25°C. If temperatures fall outside the range of 10°C and 35°C do not paint unless paints with the necessary temperature tolerance have been specified. Do not apply solvent borne paint if moisture is present on the surface.

3.21 SEQUENCE OF OPERATIONS
Painting work to generally follow the following sequences:
- Complete surface preparation before commencing painting.
- Apply primers, sealers, stains, undercoats, paints and clear coatings in the sequences laid down by **Resene**.
- Allow the full drying time between coats laid down by **Resene**.
- Do not expose primers, undercoats and intermediate coats beyond **Resene's** recommendations before applying the next coat.
- Finish broad areas before painting trim.
- Ensure batch numbers of tins are matched for whole areas.
- Internally, paint ceilings before walls and walls before joinery, trim and other items.

3.22 APPLICATION
Select brush, roller, or pad and apply coatings to the requirements of **Resene** to obtain a smooth, even coating of the specified thickness, uniform gloss and colour.

3.23 LIGHTLY SAND
Lightly sand primers, sealers, undercoats and intermediate coats to remove dust pick-up, protruding fibres and coarse particles. Complete by removing dust immediately before applying the next coat.

3.24 DEFECTIVE WORK
Correct defective work immediately and recoat as required, following precisely the **Resene** system being applied.

3.25 EACH COAT
Each coat of paint and the completed paint system to have the following qualities and properties:
- Uniform finish, colour, texture, sheen and hiding power and the proper number of coats applied.
- No blemishes such as runs, sags, crinkling, fat edges, entrained paint skins, hairs, dust, bare or starved patches, cracks, brush marks, ladder marks and blistering.
- Proper covering of corners, crannies, thin edges, cracks, end grain and other difficult places of application.

Completion

3.26 CLEAN
Clean adjoining surfaces, glass and fittings of any paint contamination. Clean off glass

indicators at the completion of the building works. Clean glass inside and out to a shining finish. Use the Resene Washwise on site 'paint equipment clean-up water' reclamation system to minimise the environmental impact of cleaning paint application tools.

3.27 LEAVE

Leave the whole of this work uniform in gloss and colour, of correct thickness, free from painting defects, clean and unmarked and to the standard required by following procedures.

3.28 REMOVE

Remove dropsheets, coverings and masking to leave surrounding surfaces and areas clean, tidy and undamaged. Remove debris, unused materials and elements from the site.

3.29 REPLACE

Replace hardware without damage to it or the adjoining surface and leave hardware properly fitted and in working order.

3.30 DISPOSAL OF PAINTS AND THINNERS

Note: The use and disposal of paint and thinners represents a significant environmental hazard.

Ensure all paint and thinners are disposed of in the following manner:

- When requested hand over part used paint containers to client for maintenance touch ups.
- Recycle leftover paint at a Resene ColorShop as part of the Resene "Paintwise programme". Contact your local Resene ColorShop for details or view information online at www.resene.co.nz/paintwise.htm.
- Donate left over paint to local community groups.
- Solvent based paints, paint thinners, turpentine, mineral spirits and solvents require special disposal procedures. Do not pour down sewer or storm water drains, sinks or into the ground. If they cannot be recycled they must be disposed of in a refuse dump licensed to take toxic waste.

3.31 MAINTENANCE

Good maintenance of coating systems involves a routine of regular cleaning as well as regular inspections. Regular inspections of the coating systems are recommended to identify breakdown, accidental damage to or undesirable deterioration of the paint.

Refer the Resene Caring for your paint finish brochure and the Resene website, www.resene.co.nz/comn/services/maintenance.htm.

4. SELECTIONS

4.1 SELECTIONS

Refer to Architectural documentation:
A601 - Fit Out - Floor and Wall Finishes Plan.

6721R RESENE PAINTING INTERIOR

1. GENERAL

This section relates to the surface preparation, painting and clear finishing of new and existing interior substrates using **Resene** architectural and decorative coating systems.

1.1 RELATED WORK

Refer to 6700R RESENE PAINTING GENERAL for general matters related to painting work.

2. PRODUCTS

Materials

2.1 PAINT TYPES GENERALLY/ THINNERS AND ADDITIVES

Refer to 6700R RESENE PAINTING GENERAL for product clauses.

3. EXECUTION

Conditions

3.1 EXECUTION

Refer to 6700R RESENE PAINTING GENERAL for execution clauses.

4. SELECTIONS

Substitutions are not permitted to the following, unless stated otherwise.

4.1 CONTROL SAMPLES

Prepare samples of the finished work, including the specified preparation if required by the architect or designer. Obtain written approval from the Principal's representative before proceeding. Use the **Resene** Architectural Sample Box as a basis of standard where appropriate.

Control samples may, after written approval, be used for comparative testing of dry film thicknesses of the complete coating systems.

4.4 HARDWARE

Hardware for removal: Remove all hardware prior to painting doors.

Paint system schedules

4.5 INTERIOR FINISHES

Room name	Ref	Substrate	RESENE Spec Number	Colour

Resene interior paint systems

4.7 INTERIOR TIMBER JOINERY, DOORS AND WINDOWS, WATERBORNE SEMI-GLOSS

Description:	**Interior timber joinery, waterborne semi-gloss**
System:	**Resene** One-Line Spec. No. 3i 1.2 (EC)
Surface prep:	D82; and **Resene** TimberLock D48[NEC], solventborne preserver/conditioner
1st coat:	**Resene** Quick Dry D45, waterborne primer/undercoat; or For timber that stains - **Resene** Wood Primer D40[NEC], solventborne primer;
2nd coat:	**Resene** Lustacryl D310, waterborne semi-gloss enamel
3rd coat:	**Resene** Lustacryl D310, waterborne semi-gloss enamel

4.8 GIB PLASTERBOARD WALLS, WATERBORNE LOW SHEEN FINISH

Description:	**Interior paperfaced plaster/solid plaster/fibrous plaster, waterborne low sheen**
System:	**Resene** One-Line Spec. No. 15i 1.4 SC Level 5 (EC)
Surface prep:	D84; D85;
1st coat:	**Resene** Broadwall Waterborne Wallboard Sealer D403, waterborne sealer
2nd coat:	**Resene** SpaceCote Low Sheen D311, waterborne low sheen enamel
3rd coat:	**Resene** SpaceCote Low Sheen D311, waterborne low sheen enamel

4.9 GIB PLASTERBOARD CEILINGS, WATERBORNE FLAT FINISH

Description:	**Interior paperfaced plaster/solid plaster/fibrous plaster, waterborne flat- ceiling**
System:	**Resene** One-Line Spec. No. 15i 1.5 Level 5 Ceiling (EC)
Surface prep:	D84; D85; D87;
1st coat (if reqd):	**Resene** Broadwall Waterborne Wallboard Sealer D403, waterborne sealer
2nd coat:	**Resene** Ceiling Paint D305, waterborne flat
3rd coat:	**Resene** Ceiling Paint D305, waterborne flat

4.10 CLEAR FINISH HUB TIMBER FINS

Description:	**Interior timber, stains and clear finishes, waterborne urethane**
System:	Resene One-Line Spec. No. 2i 3.3 Satin **(EC)**
Surface prep:	Resene D82:
1st coat:	**Resene Aquaclear** D59, waterborne urethane, thinned 10%
2nd coat:	**Resene Aquaclear** D59, waterborne urethane, satin
3rd coat:	**Resene Aquaclear** D59, waterborne urethane, satin
4th coat:	**Resene Aquaclear** D59, waterborne urethane, satin

APPENDIX

Lesa Pentra-Floor Polished floor

The Pentra-Floor Polished Floor System is a floor system under taken by certified Applicators to Lesa Systems Ltd Specifications

Warranty information is provided below. All warrants will only be valid if system is applied by a Platinum Certified Lesa Pentra-Floor Applicator. The Pentra-Floor cleaning program is also provided and must be followed for warranty to be valid.

DESCRIPTION The Pentra Floor concrete floor treatment utilizes a systems approach requiring application of Pentra-Sil chemical hardener and a treatment of the Pentra-Guard protective high gloss surface coating that is applied after light grinding and polishing then mechanically burnished into an extremely reflective high gloss shine that is both durable and stain resistant. This approach requires grinding or polishing and imparts a reflectance range from 50-75 as a gloss reading, depending on the number of Pentra-Polish coat applications.

The degree of shine and gloss level is determined by the number of applications and burnishing steps (protective surface hardener gloss coat).

1. 2 coat application 45-60 Gloss Reading Semi-Gloss

Specification:: **Lobby Floor.**

Pentra-Floor-

(Salt&Pepper 400 grit)

1. Light Grind floor with metal bond diamond discs as per Pentra-Floor Grinding process
2. Apply Lesa Pentra-Fill Grouting slurry coat (fills pin holes)
3. Apply Lesa Pentra-Sil 244+ to harden and densifier for concrete

3. Polish floor with diamond resin discs as per Pentra-Floor Polishing process for Gloss
4. Apply 2 coats of Lesa Pentra-Polish and Burnish minimum 1500-3000 RPM

Using Lesa Gorilla 800 diamond polishing pad

Pentra-Floor is a certified applicator only system. Contactor must be a platinum certified Lesa Systems applicator.

LESA PENTRA-Floor

Maintaining Polished Concrete

Recommended Maintenance / Products

Maintenance will vary depending on the environment and type of use.
See the following recommendations below!
(Approved Cleaning Product: Lesa Pentra-Clean)

Using the acquired Lesa Pentra-Floor Cleaning kit
1, Micro-Fibre Finishing Mop
2. 5 litres Pentra-Clean
3. 500ml Applicator bottle

Daily
Lightly mist the areas to be treated with the supplied Lesa Clean. Using the micro fibre finishing mop evenly

with the supplied micro fibre mop.

Result will be a clean and conditioned floor.

DO NOT use cleaners that contain citrus (de-limonene) or butyl compounds (also called 2 butoxyethanol) butyl glycol, butal cellosolve, ethylene glycol, monobutyl ether, dowanol, bane-clene, Eastman EB solvent, BH-33 industrial cleaner, acids, hydroxides or sulfates as cleaning detergents.

TECHNICAL SERVICES
A staff of factory trained service personnel offers design assistance and technical support. For technical assistance, contact our Technical Service Department: Technical Service Customer Care Toll Free 0800 74 LESA. www.lesasystems.co.nz.

CONCRETE FLOOR JOINT FILLER

Lesa Spall-Pro RS88

PART 1 – GENERAL

Saw cuts to be minimum 5mm x 40mm deep.

1.01 GENERAL DESCRIPTION OF WORK

A. Provide all labour, products and equipment required to properly install semi-rigid filler in joints in the interior concrete floor slabs.

1.02 SCOPE OF WORK

A. Fill all contraction (control) and construction (formed) joints in the interior concrete floor slab where the joints will be exposed to material handling vehicle wheels.
B. Refer to drawings for additional joints possibly requiring filler.

1.03 CONTRACTOR QUALIFICATIONS

A. Installer shall have a minimum of three (3) years experience in the installation of semi-rigid fillers on industrial floors.
B. Use only Manufacturer Approved Applicators for work covered by this section.
C. Approved Applicator shall use tools and equipment specifically designed for the preparation and placement of industrial joint fillers.
D.

SUBMITTALS

A. Joint Filler Materials: Submit Manufacturer's data describing joint filler proposed for use on the project.
B. Submit Manufacturer's Approved Applicator Certificate.

PART 2 – PRODUCTS

2.01 CONTROL JOINT FILLER:

1. Joint filler for all areas shall be
2. **"Lesa SPAL-PRO RS88 Rapid Set Polyurea Joint Filler – Intellectual Grey"**.

B. No joint filler substitutions will be allowed.

2.02 ACCESSORIES

A. Compressible foam backer rod may be used in through slab construction joints only but MUST be placed at a minimum depth of 50mm. No other use of backer rod will be allowed. Refer to installation section and product technical data for additional information.
B. Joint Cleanout and preparation should be done utilizing dust-free, diamond blade equipped cleanout saws.

PART 3 – EXECUTION

3.01 PROJECT CONDITIONS

A. Work area should be free of obstructions and other trades.
B. Slab should be visibly dry and all floor scrubbing/washing activities should be suspended at least 48 hours prior to filler installation.
C.

3.02 TIMING OF INSTALLATION

A. The American Concrete Institute (ACI) recommends that filling be deferred as long as possible to allow for maximum slab shrinkage and joint widening. Deferring filler installation as long as possible will help to minimize the occurrence of joint filler separation due to excessive joint widening during concrete cure (and shrinkage).
B. For ambient temperatures a 90-120 day slab cure is advisable. Deferring filling until after facility is under permanent temperature control is best, if possible.

3.03 EXAMINATION OF CONDITIONS

A. It is the responsibility of the installer to inspect project and joint conditions and notify on-site management in writing of any deficiencies that might adversely affect the quality or durability of the work performed or his contract price.
B. Start of work by the installer implies acceptance of conditions.

3.04 PRE-INSTALLATION SAMPLE

A. Before start of actual work the applicator shall install samples to demonstrate his intended procedures and finished product. Sample shall include at least 10metres each of both contraction and construction joints and be performed in the presence of on-site management.
B. If procedures and finished product are approved they will be considered a standard for the entire project.

A. Installation of **Lesa SPAL-PRO RS88 Rapid Set Polyurea Joint Filler:**

1. Pre-mix Part "A" component (polyol) to re-distribute any settlement that may have occurred during shipping or storage.
2. Lesa Spal-Pro RS88 is supplied in 600ml dual cartridges or Lesa Polyurea Pump.
3. Fill joint in one pass, from bottom to top, slightly overfilling the joint.
4. After "Spal-Pro RS88" has fully cured, razor off excess to leave a flush filler profile. Timing of the razoring (30 min. to 1 hour typically) can affect flushness; test for shave time that will result in flush shave.
5. If low spots exist or if the finish profile is not flush, abrade the filler surface with a wire brush, wire wheel, or other means and apply an additional cap bead of RS88 filler. Allow to cure, and razor flush to the floor surface. NOTE: Do not attempt to saw cut RS88 filler as it will likely soften and may revert back to a gum like liquid.

PART 4 -QUALITY ASSURANCE

4.01 JOINT FILLER DEFICIENCIES:

A. Installer is advised that significant deficiencies in workmanship, including: Less than proper filler depth, inadequate joint cleaning, concave filler profile, etc., shall be removed and properly replaced.

END OF SECTION

Friction test results
Convergent Concrete Technologies

This series of tests were conducted according to ASTM C-1028-96 guidelines. All samples had a machine trowel finish. The Pentra-Guard sample was also polished with diamond discs up to 1000 grit.

Results:

Pentra-Floor (polished floor) treated specimen

Dry = 0.690

Wet = 0.360

Interpretation:

The dynamics of friction on concrete are very complex. This testing can only be interpreted to mean that Pentra-sil products do not significantly alter the friction qualities of the surface they are applied to. All standard methods for accident prevention must be used in situations where slip and fall or traction concerns exist.

Test Engineer

Lee Barrus

Pentra-Floor - Warranty

Pentra-Floor is warranted to harden and chemically densify the structurally sound concrete surface for a period of 10-years from the date of application by a factory certified contractor. If the Pentra-Floor fails to perform as outlined in this warranty, either enough Pentra-Sil or Pentra-Guard ™ to re-treat the non-performing area or the original purchase price of material will be refunded, at the discretion of Convergent Concrete Technologies & Lesa Systems Ltd. This warranty does not cover concrete deterioration caused by chemical spills or staining, accidents, carbonation, cracking, or improper placement or maintenance. Th warranty also does not cover incidental damages or damages or harm caused by misuse of this product and refund or replacement of product is the sole remedy.

It is strongly recommended a Sample is carried out on site prior to full works carried out. All treated and polished floor area should be kept protected after application prior to Store opening.

CONVERGENT
CONCRETE TECHNOLOGIES

450 South 1325 West | Orem, Utah 84058 | convergentconcrete.com
phone.801.375.2280 | fax.801.375.2971

Friction test results
Convergent Concrete Technologies

This series of tests were conducted according to ASTM C-1028-96 guidelines. All samples had a machine trowel finish. The Pentra-Guard sample was also polished with diamond discs up to 1000 grit.

Results:

Dry untreated specimen = 0.710
Wet untreated specimen = 0.480

Pentra-sil treated specimen
Dry =0 .770
Wet =0 .470

Pentra-sil 244+ treated specimen
Dry =0 .731
Wet =0.470

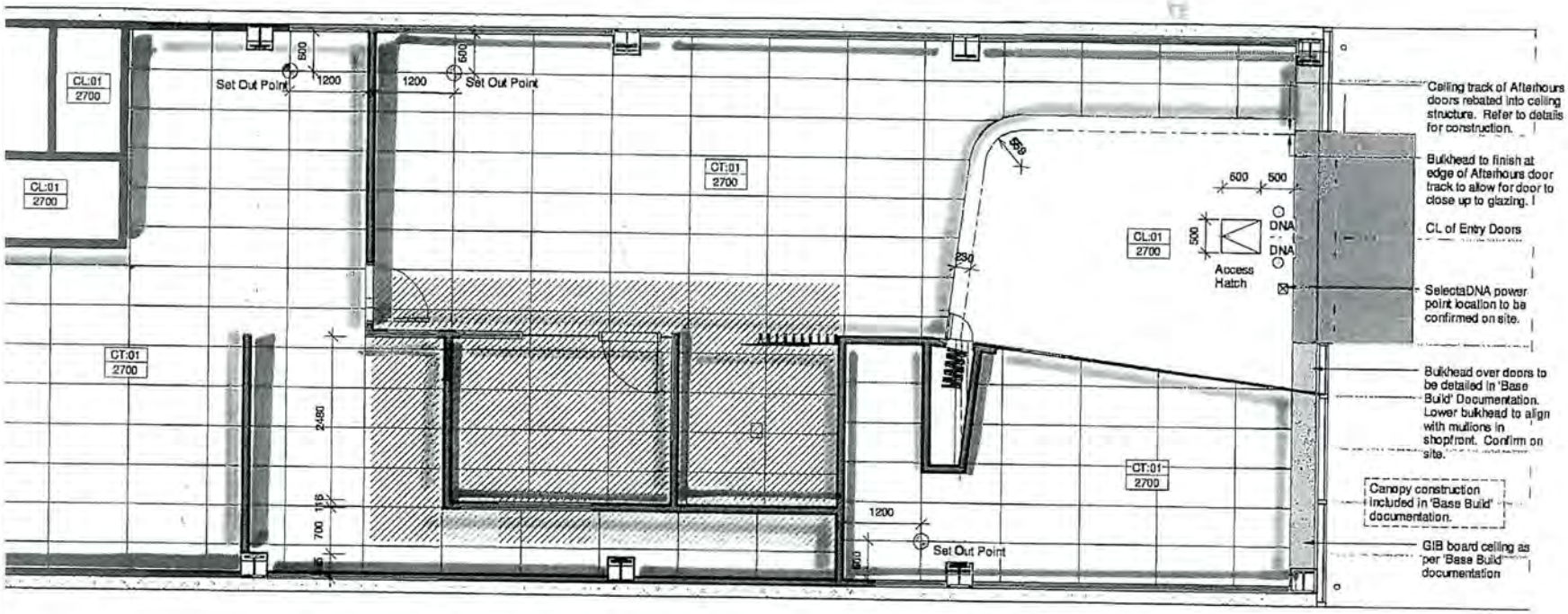
Pentra-Guard treated specimen
Dry = 0.690
Wet = 0.360

Interpretation:

The dynamics of friction on concrete are very complex. This testing can only be interpreted to mean that Pentra-sil products do not significantly alter the friction qualities of the surface they are applied to. All standard methods for accident prevention must be used in situations where slip and fall or traction concerns exist.

Test Engineer

Lee Barrus



CL:03 height — MDF Ceiling with lacquer paint finish. Refer to 'Base Build' Documentation.

CL:04 height — Alcubond ceiling. Refer to 'Base Build' Documentation.

Ceiling access hatch. Location and no. required are to be confirmed onsite.

DNA — SelectaDNA Spray heads (supply & install by others).
Note: Contractor to allow to liaise with the security contractor regarding installation.

SelectaDNA Spray Heads power point GPO for control panel. Installed within ceiling space. Supply and installation forms part of the main contractor works.

Acoustic insulation, 2 layers of Autex ASB6 insulation over ceiling. Ensure 100mm gap between insulation and recessed downlights. Butt edges and joins to ensure no gaps. Insulation to extend past walls 1m in every direction.

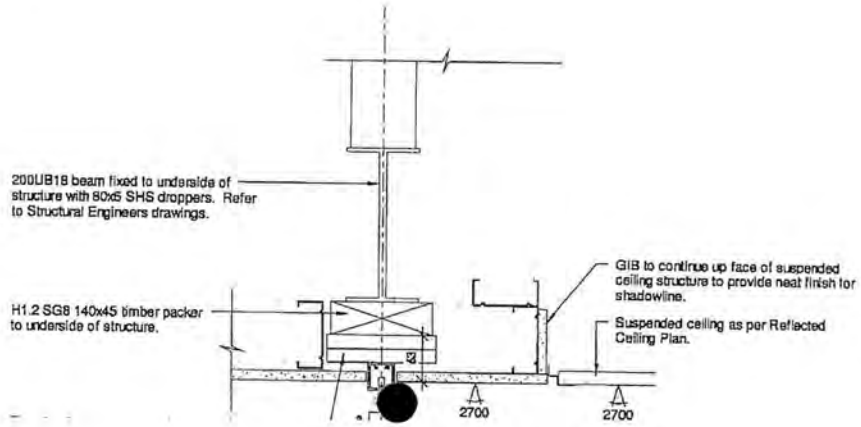
Indicates ceiling which is to be detailed in 'Base Build' documentation.

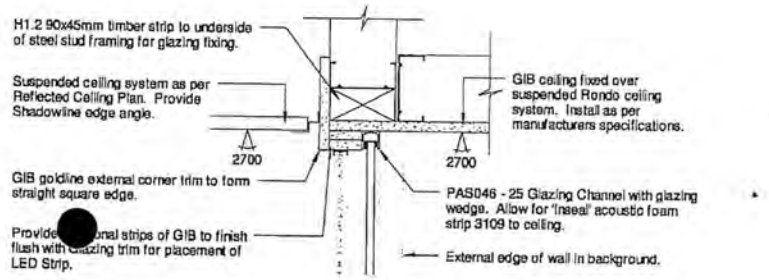
RETAIL - CEILING NOTES

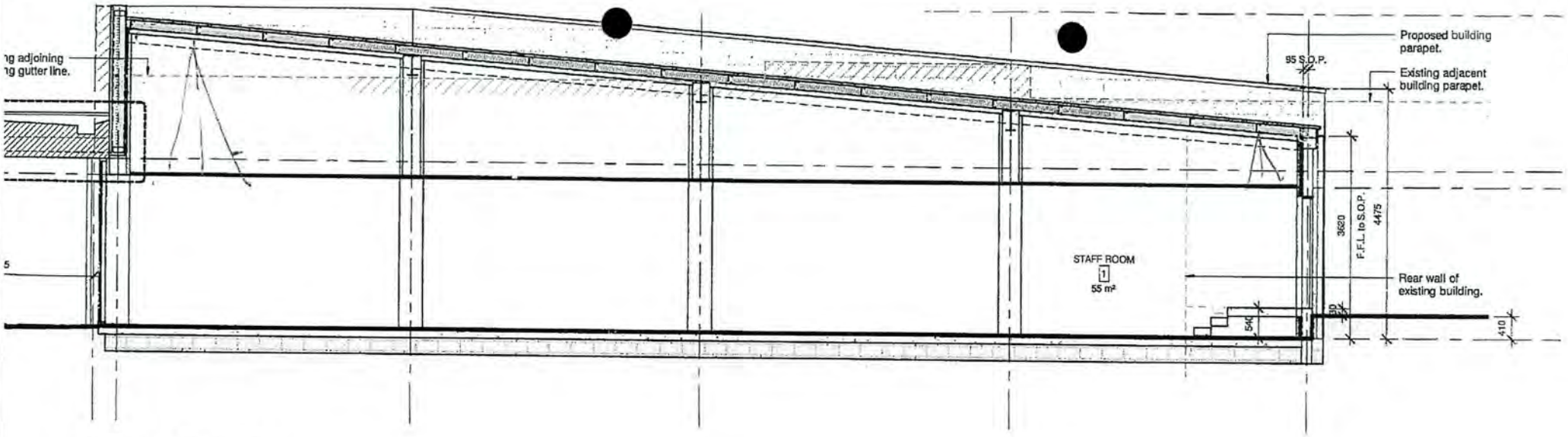
- Ceiling plan to be read in conjunction with Mechanical and Electrical services.
- Ceiling plan to be read in conjunction with 'Base Build' Documentation.
- Setout for entry bulkhead to be set out on site and confirmed with Architect and Client.

NOTE
...NT DIRECTION TO LINE UP
...NDER PURLINS @ 1200 ⊄

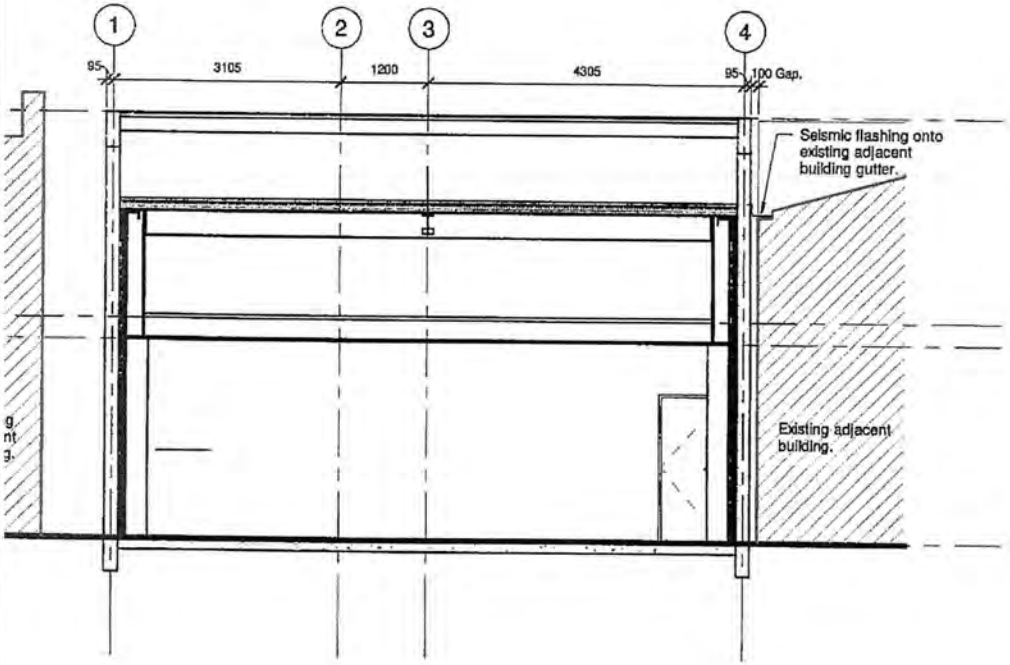
...ING PLAN

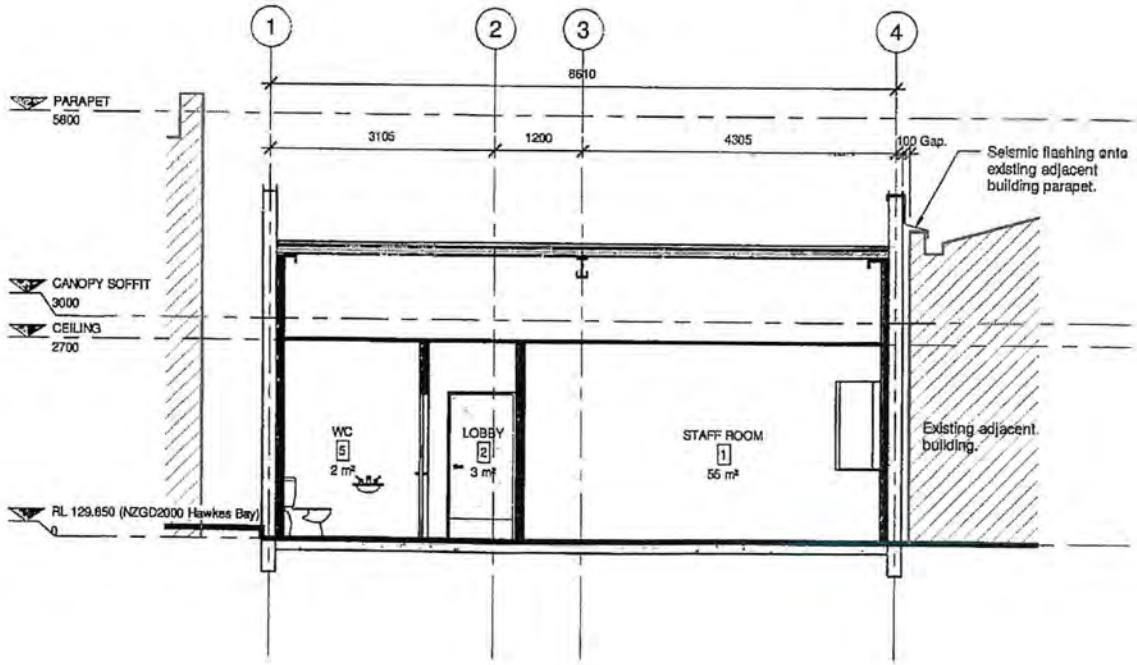






A-A / A100 G.A. Section A-A
1 : 50 @ A1





USG BORAL

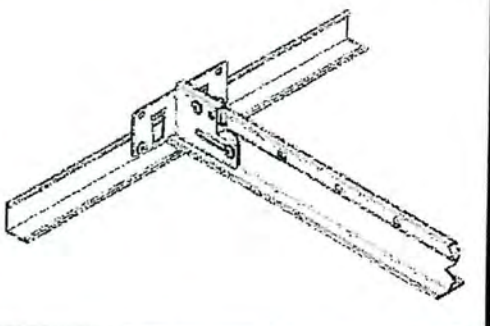
AS/NZS 2785 : 2000
NZS 1170.5 : 2004

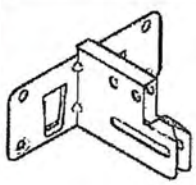
BNZ WAIPUKURA.
DESIGN TO ULS 1:500
PANEL AMF 1200 x 400 CT-02 - ALL AREAS.
07/11/14.

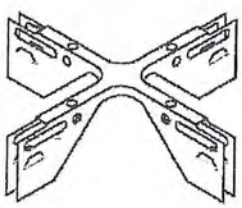
March 2014

Generic Seismic Design

for USG DONN® Exposed Grid Suspended Ceilings







Seismic Design
- USG Suspended Ceilings

These generic designs are specifically for :
USG DONN® Grid and USG Tile Suspension Systems

Earthquake forces need to be considered for all suspended ceilings in New Zealand and Australia, to comply with AS/NZS 2785:2000 – Suspended Ceilings, Design & Installation. Earthquake forces can act in the vertical and/or horizontal direction. The most common method of horizontal restraint is to fix the ceiling to the building structure around its perimeter. If perimeter fixing is not sufficient or appropriate, the ceiling may be back braced by fixing to the structure above.

Simple perimeter fixed or back-braced ceilings in low risk locations can be designed using this brochure which has been developed to comply with NZS1170.5 and AS/NZS2785. The ceiling installer must ensure that the ceiling is no larger than the maximum dimensions prescribed in the following tables, and complies with all of the Assumptions & Limitations stated in this brochure. For ceilings which fall outside the scope of these limitations, seismic design of the ceiling must be undertaken by a qualified structural engineer with experience in ceiling design, using USG's Seismic Guidelines brochure.

It should be noted that ceilings in low risk locations are designed to withstand a serviceability level earthquake only (25 year return period), without incurring significant damage to ceiling components or allowing tiles to fall out. If a ceiling tee is rigidly perimeter fixed to the supporting structure at both ends, there is the possibility that the ceiling will be damaged by differential movement of the building. To avoid this, it is recommended that a 10-15mm gap is created between one end of each ceiling tee and the adjacent building structure. A similar isolation gap is also required around rigid objects that penetrate through the ceiling (eg. central columns).

USG has introduced the ACM7 Seismic Clip as an alternative option of creating this seismic isolation gap, while increasing the strength of the ceiling. Details are illustrated on page 10.



Standards and Building Codes

USG uses the following Standards in its manufacturing, testing and marketing policies for compliance with the respective Building Codes of Australia and New Zealand

AS/NZS 2785	- Suspended Ceilings, Design and Installation
ASTM C635	- Standard Specification for the Manufacture, Performance and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings
AS/NZS 1397	- Steel Sheet and Strip
AS1530.4	- Fire Resistance of Elements of Building Construction
AS/NZS 4600	- Cold Formed Steel Structures Code
AS 1170.4	- Earthquake Loads (Australia)
NZS 1170.5	- Earthquake Loads (New Zealand)
NZS 4219	- Specification for Seismic Resistance of Engineered Systems in Buildings
AS 2946	- Suspended Ceilings, Recessed Luminaires and Air Diffusers Interface
NZBC – B1/VM1	- NZ Building Code Verification Method B1/VM1 Clause 2
NZBC – B2 Durability	- DONN DX and DONN Centricitee will have a minimum serviceable life of 15 years when installed in a dry, non-corrosive, interior installation

ISO 9000 Quality Assurance

USG Interiors Pacific Ltd is an accredited ISO 9001 – 2008 manufacturer
Licence No. 5044

Certified System

Quality
ISO 9001
SAI GLOBAL

Seismic Design
- USG Suspended Ceilings

Contents

SEISMIC DESIGN STATEMENT

Sinclair Knight Merz (*SKM*) has provided USG Boral with structural design services in respect of Clause B1 of the New Zealand Building Code to assist with the development of this USG Generic Seismic Design brochure, dated March 2012.
The services provided by SKM have been undertaken in accordance with compliance documents issued by the Department of Building & Housing, Verification Method B1/VM1 as follows:

- Compression and tension testing of main tee and cross tee components was carried out by Materials & Testing Laboratories Limited in Auckland in 2007.
- Perimeter fixing connection tests were performed at USG Interiors Pacific Limited, Penrose, in 2011. An early sample of the testing was carried out under SKM's observation.
- SKM has analysed the results of these tests to determine the performance capability of the DONN DX® and DXT® systems under axial loads, in accordance with AS/NZS4600:2005, Section 8: Testing. In carrying out this analysis, SKM has relied upon, and presumed to be accurate, the results of this testing carried out by third parties.
- SKM has undertaken design calculations to determine the performance capability of the direct fixed, K-braced and seismic strut ceiling braces, in accordance with AS/NZS4600:2005. For the USG Compression Post, SKM has relied on and presumed to be accurate, the minimum compressive load capacity published in USG's USA Seismic Technical Guide for the post
- Design loads for seismic performance were determined in accordance with NZS1170.5:2004, as modified by the New Zealand Building Code, Clause B1 (Amdt 10, May 2011).

On the basis of the assumptions and limitations set out in this statement and elsewhere in this Generic Seismic Design brochure, SKM considers that suspended ceilings that are designed and constructed in accordance with this Generic Seismic Design brochure will meet the requirements of the relevant provisions of the New Zealand Building Code as at March 2012.

SKM's services have been provided in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose of assisting USG Boral to prepare this Generic Seismic Design brochure. Interpretation and application of this Generic Seismic Design guide for specific applications is outside the control of SKM and is the user's responsibility. Anyone using this guide must be well trained or qualified in the principles of seismic design of ceilings (e.g. a Chartered Professional Structural Engineer, or an approved USG Boral ceiling contractor and installer).

Sinclair Knight Merz Date: March 2012

SINCLAIR KNIGHT MERZ
SKM

Seismic Design
- USG Suspended Ceilings

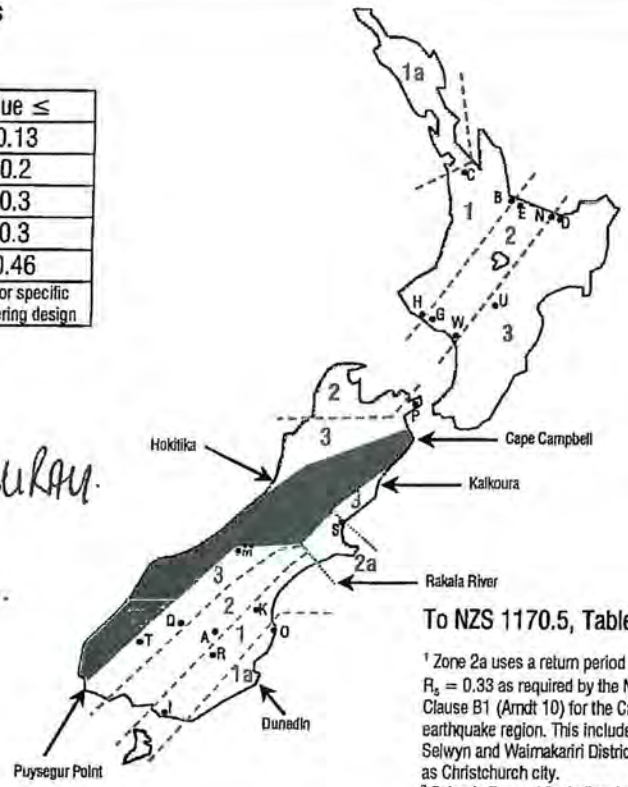
Assumption & Limitations

Building in which ceiling is installed	▪ Building must be located within New Zealand ▪ Building must be no more than 40 metres tall ▪ Building must not be Building Importance Level 4 having special requirements for "post disaster" functionality (eg. hospital, police station) – refer to AS/NZS 1170.0 for full definition ▪ For perimeter fixed ceilings, a continuous nogging must be provided at the same level as the perimeter angle trim along all fixed edges of the ceiling (a continuous concrete or block masonry wall/beam is also acceptable) ▪ The support structure (including nogging, associated wall/bulkhead, and building superstructure) must be strong and stiff enough to carry the seismic bracing loads from the ceiling without suffering any damage. This must be confirmed by a qualified structural engineer
Ceiling & Services	▪ Main Tees must be either : DONN DX30D, DXL38D, DX38D, DXT30D, DXT38D ▪ Cross Tees must be either : DONN DX30M, DX30D, DX38D, DXT30D, DXT38D ▪ Rivet strengths allow for use with 6 and 10mm Teg Tabs, and no Teg Tabs (refer to Seismic Force Calculator) ▪ End connections must be detailed as shown in this Design Guide. No substitution is permitted without specific engineering design ▪ Maximum tee spacing must be 1200mm in any direction ▪ Ceiling must be non-trafficable ▪ Ceiling must be non-structural (ceiling system does not provide structural stability to the building e.g. acting as a ceiling diaphragm) ▪ Install and fix all lay-in ceiling panels with correct hold-down clips in full conformance with USG specifications. Where point accessibility is required, nominate unclipped panels with a visual marker eg. coloured sticker / board pin etc) ▪ Ceiling weight must include ceiling tiles, suspension grid, lighting, any other services, and insulation if laid on the grid ▪ Individual ceiling tiles must not weigh more than 10kg. All items weighing more than 10kg must be supported independently from the ceiling (including recessed or surface mounted luminaires, air conditioning cassettes etc) unless covered by specific engineering design (refer to page 6 for further guidance) ▪ All interior partition walls must be supported independently from the ceiling (including independent horizontal restraint to top of wall), or their weight must be included in the ceiling seismic mass calculations, including specific consideration of the seismic load on each individual ceiling tee (obtain specific advice from a structural engineer) ▪ All evacuation and life safety systems must be supported independently from the ceiling, and must be likely to remain functional even if the ceiling collapses ▪ There must be no other reason why ceiling movement/damage or falling tiles would cause an unusually high level of hazard or damage (e.g. cause release of hazardous substances/organisms, damage to electrical reticulation). ▪ Ceilings must be installed in accordance with: AS/NZS2785; USG DONN Brand Grid Suspension Systems brochure*; USG Fire Rated Exposed Grid Ceiling System brochure; and this document. *Note: Seismic Design may require heavier grid options than required for vertical loads ▪ Perimeter fixing rivets must be aluminium. No substitution is permitted
Key Technical and Engineering Assumptions	▪ AS/NZS2785:2000 has been interpreted in light of the more detailed guidance in NZS1170.5:2004, Section 8 "Requirements for Parts and Components". It is assumed that non-structural, non-trafficable suspended ceilings that satisfy the definition of a Category P.7 part in NZS1170.5, Table 8.1 are only required to satisfy **Serviceability Limit State** criteria. The generic ceilings specified on pages 7-23 of this brochure have not been designed to satisfy the requirements in AS/NZS2785, Section 3.3.4 during an ultimate limit state seismic event ▪ For design of ceilings for **Ultimate Limit State** loads, refer to pages 24-25 for further detailed technical and engineering assumptions and guidance on specific engineering design ▪ Annual probability of exceedance for design earthquake is 1/25 (for serviceability level earthquake) ▪ The ceiling ductility is assumed to be μ=1.0 (for serviceability level earthquake)

Seismic Design
- USG Suspended Ceilings

Seismic Zones

ZONE	Z Value ≤
1a	0.13
1	0.2
2	0.3
2a[1]	0.3
3	0.46
	Zone for specific engineering design



Location Key	
C	Mercer/Onewhero
B	Papamoa
E	Te Puke
N	Whakatane
D	Ohope
U	Waiouru
H	Hawera
G	Patea
W	Wanganui
P	Picton
S	Sefton
K	Kurow
O	Oamaru
R	Roxburgh
I	Invercargill
T	Te Anau
Q	Queenstown
A	Alexandra
M	Mt Cook

To NZS 1170.5, Table 3.3

[1] Zone 2a uses a return period factor of R_s = 0.33 as required by the NZBC, Clause B1 (Amdt 10) for the Canterbury earthquake region. This includes the Selwyn and Waimakariri Districts as well as Christchurch city.

[2] Seismic Zones 1 (including 1a), 2, & 3 are generally as defined in NZS 3604:2011

BNZ WAIPUKURAU
DESIGN TO
NZS 1:500
07/11/14

Ceiling Weight

Ceiling Panel	3.6	Dead Load
DONN Grid	1.0	
Lighting[4]		Services Load
Other[4]	3.0	
TOTAL[3]	7.6 kg/m²	

Lighting Weight Calculation Details [4]

Size: _____ X _____ mm

Weight: _____ kg

Spacing Centres: _____ X _____ m

W ÷ SC = _____

[3] NZS1170.5 requires that the ceiling is designed for the actual mass of components that will be installed in the ceiling. If AS/NZS 2785:2000 is also specified, the ceiling must make allowance for a total Services Load of not less than 3kg/m²

[4] Where lighting or other loads greater than 10kg are concentrated along one or more tee lines, the ceiling components that provide horizontal seismic restraint must be designed for this higher intensity of loading.

Seismic Force Calculator (Transfer values to Summary Page)

Ceiling Weight		Height[5] (metres)	ZONE FACTOR 1a	1	2	2a	3
7.6 kg/m²	x	0-3	0.8	1.2	1.8	2.3	2.7
		3.1-6	1.0	1.6	2.4	3.1	3.6
		6.1-9	1.3	2.0	2.9	3.9	5.0
		9.1-12	1.5	2.4	3.5	4.6	6.0
		12.1-20	1.5	2.4	3.5	4.6	7.3
		20.1-40	1.5	2.4	3.5	4.6	8.5[6]

TEG TABS FACTOR [7]			Tee Spacing			SEISMIC FORCE
6mm with rivet	1.7	x	1.2	m	=	8.8
10mm with rivet	2.0		0.6	m		2.9
With ACM7 Clip (no rivet)	-					
No Teg Tabs	-					

Use this Factor ONLY for Perimeter Fixing graph

0.6

1200 x 600 TILE

SEE CALS SEISMIC DESIGN

[5] For Perimeter Attachment – height of ceiling from ground level, or
For Back Braced - height of structure where ceiling is attached, from ground level

[6] Provide rigid hangers to prevent uplift

[7] The Teg Tab Factor ONLY applies for calculation for Perimeter Fixing design table on page 9. Do not include in Seismic Force calculation for the Main or Cross tee tables, or for back braced designs

Seismic Design
- USG Suspended Ceilings

Ceiling Weight	
7.6	kg/m²

(From page 7)

X

Height [1] (metres)	ZONE FACTOR[5]				
	1a	1	2	2a	3
0-3	0.8	1.2	1.8	2.3	2.7
3.1-6	1.0	1.6	2.4	3.1	3.6
6.1-9	1.3	2.0	2.9	3.9	5.0
9.1-12	1.5	2.4	3.5	4.6	6.0
12.1-20	1.5	2.4	3.5	4.6	7.3
20.1-40	1.5	2.4	3.5	4.6	8.5[2]

X

TEG TABS FACTOR[3]	
6mm with rivet	1.7
10mm with rivet	2.0
With ACM7 Clip (no rivet)	-
No Teg Tabs	-

Use this Factor ONLY for Perimeter Fixing graph

[1] For Perimeter Attachment – height of ceiling from ground level, or For Back Braced - height of structure where ceiling is attached, from ground level

[2] If the result of the Zone Factor x ULS Design Factor x Ceiling Ductility Factor is greater than 8, provide rigid hangers to prevent uplift

[3] The Teg Tabs Factor only applies to design of Perimeter Fixings. Do not include in Seismic Force for design of ceiling tees or for braced ceilings

X

Category Classification
(NZS1170.5, Section 8, Table 8.1)

- P.1 - Part representing a hazard to life outside the structure
- P.2 – Part representing a hazard to a crowd of greater than 100 people within the structure
- P.3 – Part representing a hazard to individual life within the structure
- P.4 - Part necessary for the continuing function of the evacuation and life safety systems within the structure
- P.5 – Part required for operational continuity of the structure
- P.6 – Part for which the consequential damage caused by its failure are disproportionately high
- P.7 – All other parts

Ceiling Category	Building Importance Level (APE*)	Earthquake Zone (see page 7)	ULS DESIGN FACTOR[5]
P.7	1 & 2 & 3 (1/25)	1a & 1 & 2 & 2a & 3	1.0
P.6	1 & 2 & 3 (1/25)	1a & 1 & 2 & 2a & 3	2.0
P.5	4 (1/500)	SPECIFIC ENGINEERING DESIGN	
P.4 & P.2 & P.1	2 (1/500)	1a & 1 & 2 & 3	4.0
		2a	3.1
	3 (1/1000)	1a & 1 & 2 & 3	5.2
		2a	4.0
P.3	2 (1/500)	1a & 1 & 2 & 3	3.6
		2a	2.8
	3 (1/1000)	1a & 1 & 2 & 3	4.7
		2a	3.6

* Annual Probability of Exceedance

X

Ductility (μ)[4]	CEILING DUCTILITY FACTOR[5]
1.0	1.0
1.25	0.85
2.0	0.55

[4] A ductility of 1.0 must be assumed, except on the advice of a Chartered professional structural engineer for a specific ceiling

X

Tee Spacing	
1.2	m
0.6	m

[5] **If the result of Zone Factor x ULS Design Factor x Ceiling Ductility Factor is greater than 21 before multiplying the Tee Spacing, use 21.** This reflects the horizontal seismic force limit of 3.6g in NZS1170.5, equation 8.5(1).

=

SEISMIC FORCE
88.64
29.54

Seismic Design - USG Suspended Ceilings

Summary

Project Name: BN2 WAIPUKURAU Project No. : Ceiling Level: 0.3 floor

Location: WAIPUKURAU · Seismic Zone: 3 Ground

Seismic Force Calculator Details

	Ceiling Weight kg/m²:		Ceiling Height Factor:		Teg Tab Factor: (N/A)		ULS Design Factor:		Ductility Factor:		Tee Spacing:		SEISMIC FORCE :
Tees & Braces	7.6	x	2.7	x		x	3.6	x	1.0	x	(1.2)	=	88.64
											~~0.6~~ 0.4	=	29.54
Perimeter Fixings N/A.		x		x		x		x		x	1.2	=	
											0.6	=	

Suspension and Wall Angles

(circle required type & spacing) *Note: When using DX38D, use MT55 Wall Angle option for when perimeter fixing with rivets, not MT45*

Main Tee type DX38D / DX30D / DXL38D / (DXT38D) / DXT30D @ 0.6 / (1.2 m centres)

Cross Tee type DX38D / DX30D / DX30M / (DXT38D) / DXT30D @ ~~0.6 / 1.2 m centres~~ 0.4 centres.

Wall Angle type MT55 / MT45 / ML45 / US45 / (MSL45) / MXT45

Wall Angle fastener(s) (see page 13) _____

Perimeter Fixing Options

(tick/circle required type)

☑ **Main Tee** - Fixed on one end only

Max. allowable tee length (tee) 9 m

Max. allowable tee length (fixing) 9 m

Actual tee length 8 m

Fixed end fasteners PA 9 ø3.2 alu rivet / ø4.0 alu rivet / (ACM7 Seismic Clip) # 2 screws

Free end fixing PA 2 / (ACM7 Seismic Clip) / Hanger ≤ 200mm / Other / N/A _____

☐ Fixed on both ends (confirmed with building engineer)

Max. allowable tee length (tee) _____ m

Max. allowable tee length (fixing) _____ m

Actual tee length _____ m

☑ **Cross Tee** - Fixed on one end only

Max. allowable tee length (tee) 14.5 m

Max. allowable tee length (fixing) 22.0 m

MAX Actual tee length 14 m

Fixed end fasteners PA 9 ø3.2 alu rivet / ø4.0 alu rivet / (ACM7 Seismic Clip) 1 screw

Free end fixing PA 2 / (ACM7 Seismic Clip) / Hanger ≤ 200mm / Other / N/A _____

☐ Fixed on both ends (confirmed with building engineer)

Max. allowable tee length (tee) _____ m

Max. allowable tee length (fixing) _____ m

Actual tee length _____ m

Teg Tab none / (6mm) / 10mm ☐ with rivets ☑ without rivets

Seismic Expansion Gap Options

(circle required type)

Main Tee direction DH4 / Other _____

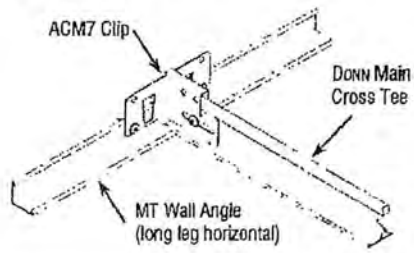
Cross Tee direction DH4 / Other _____

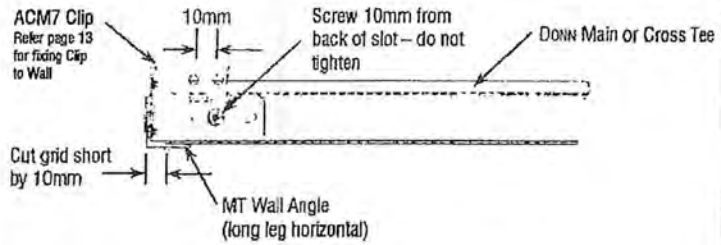
Installation Company: Name: Signed: Date:

Seismic Design
- USG Suspended Ceilings

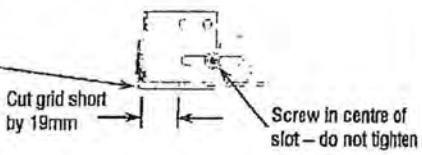
Non-fixed (free) End Options

ACM7 Seismic Clip – MT* Wall Angle PA1

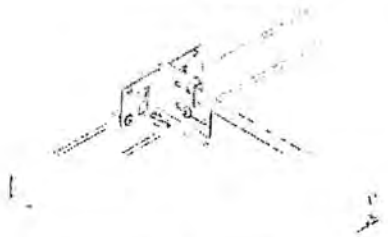




*ML Wall Angle may be substituted where a larger seismic gap is required (long leg horizontal)

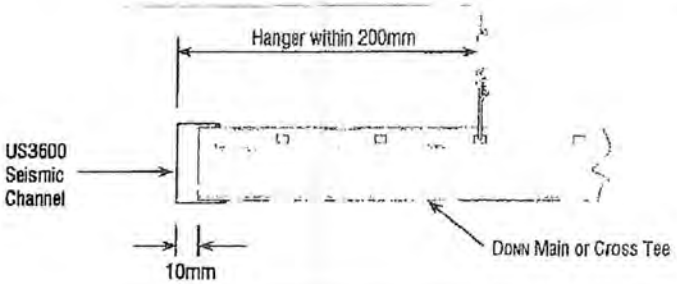


ACM7 Seismic Clip – MT* Wall Angle with Teg Tab PA2



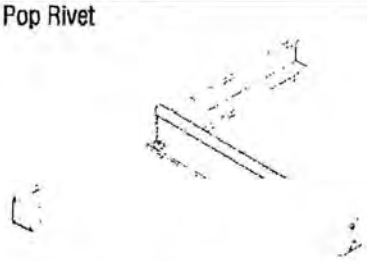
All other details as for no Teg Tab above

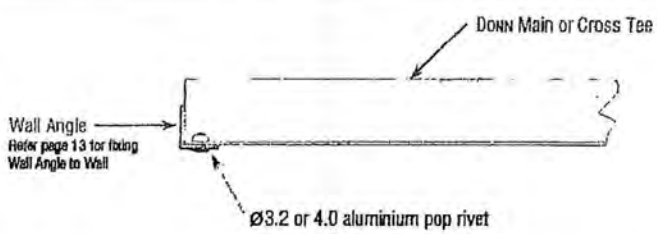
US45-3600 Seismic Channel PA3



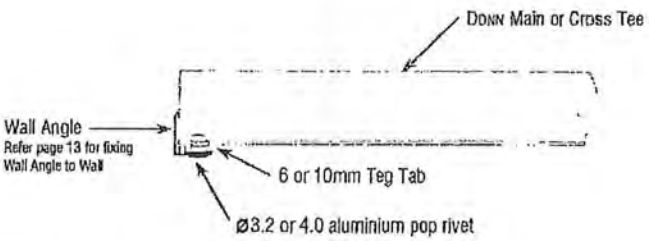
Fixed End Options

Pop Rivet PA4





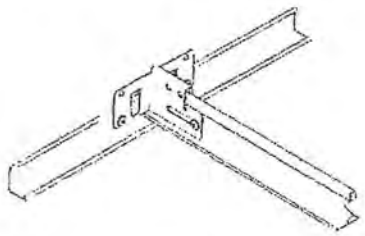
Pop Rivet with Teg Tab PA5

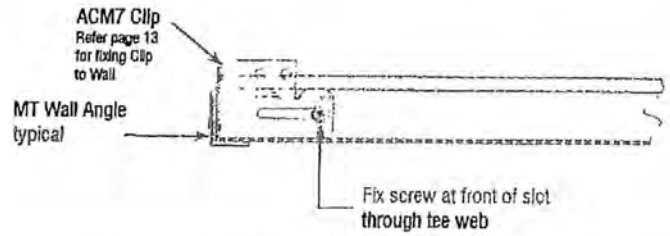


Seismic Design
- USG Suspended Ceilings

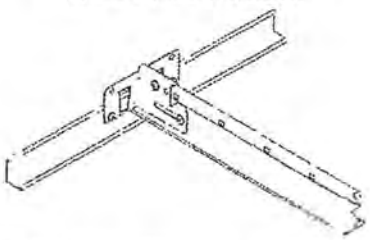
Fixed End Options con't

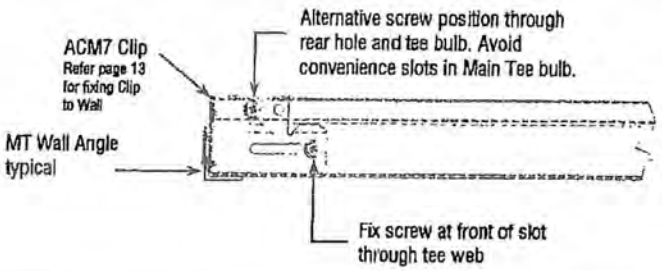
ACM7 Seismic Clip – DX30M Cross Tee PA6



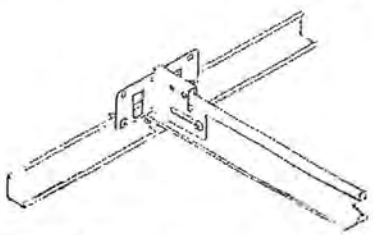


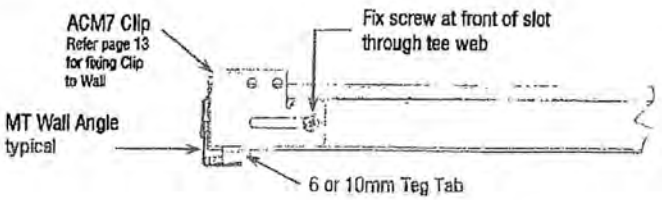
ACM7 Seismic Clip – DX/DXT30D, DX/DXT38D, Main or Cross Tee PA7



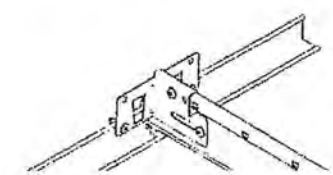


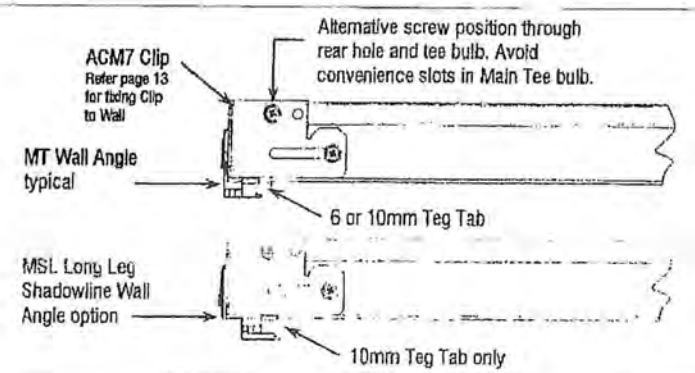
ACM7 Seismic Clip – DX30M Cross Tee with Teg Tab PA8



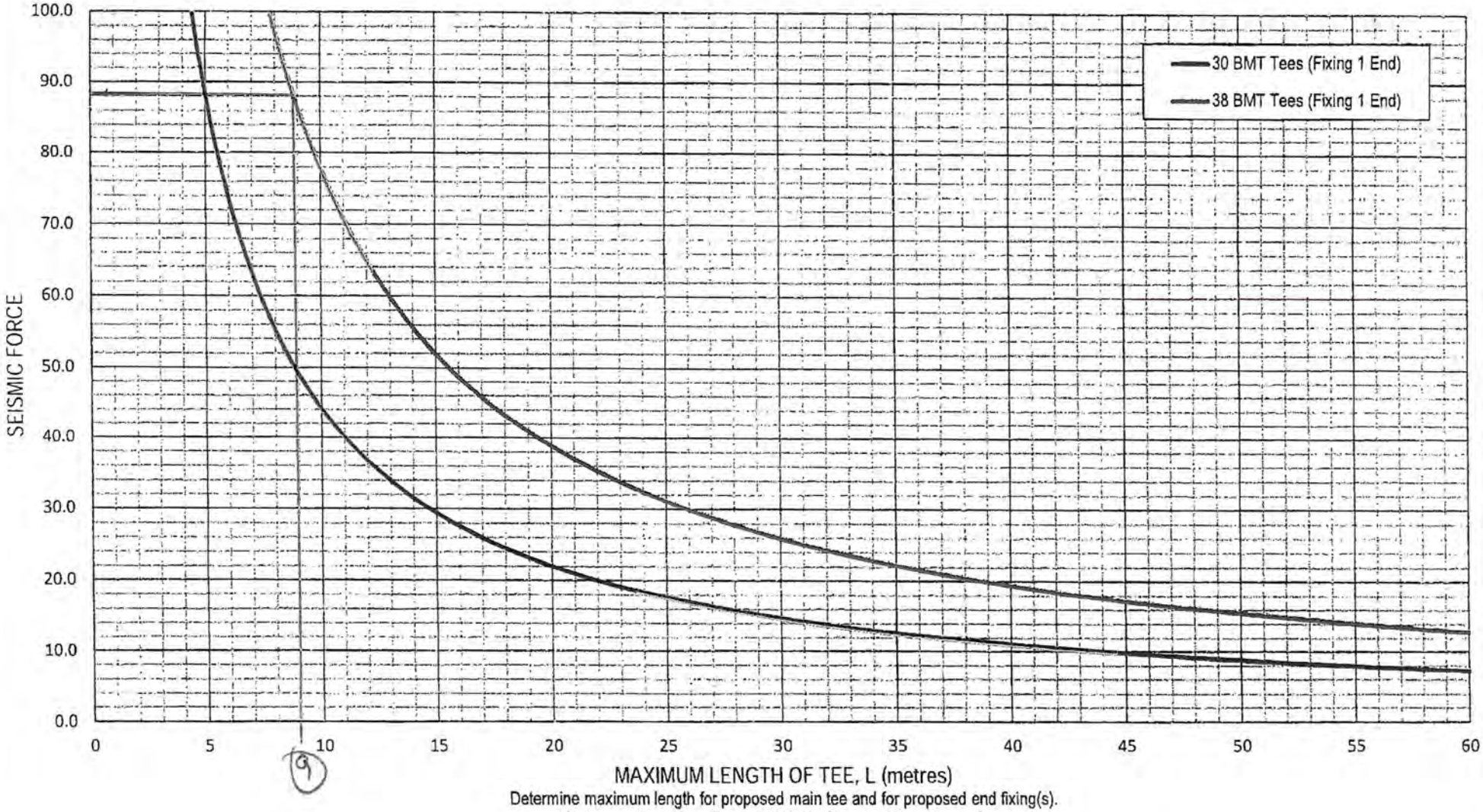


ACM7 Seismic Clip – DX/DXT30D, DX/DXT38D, Main or Cross Tee with Teg Tab PA9



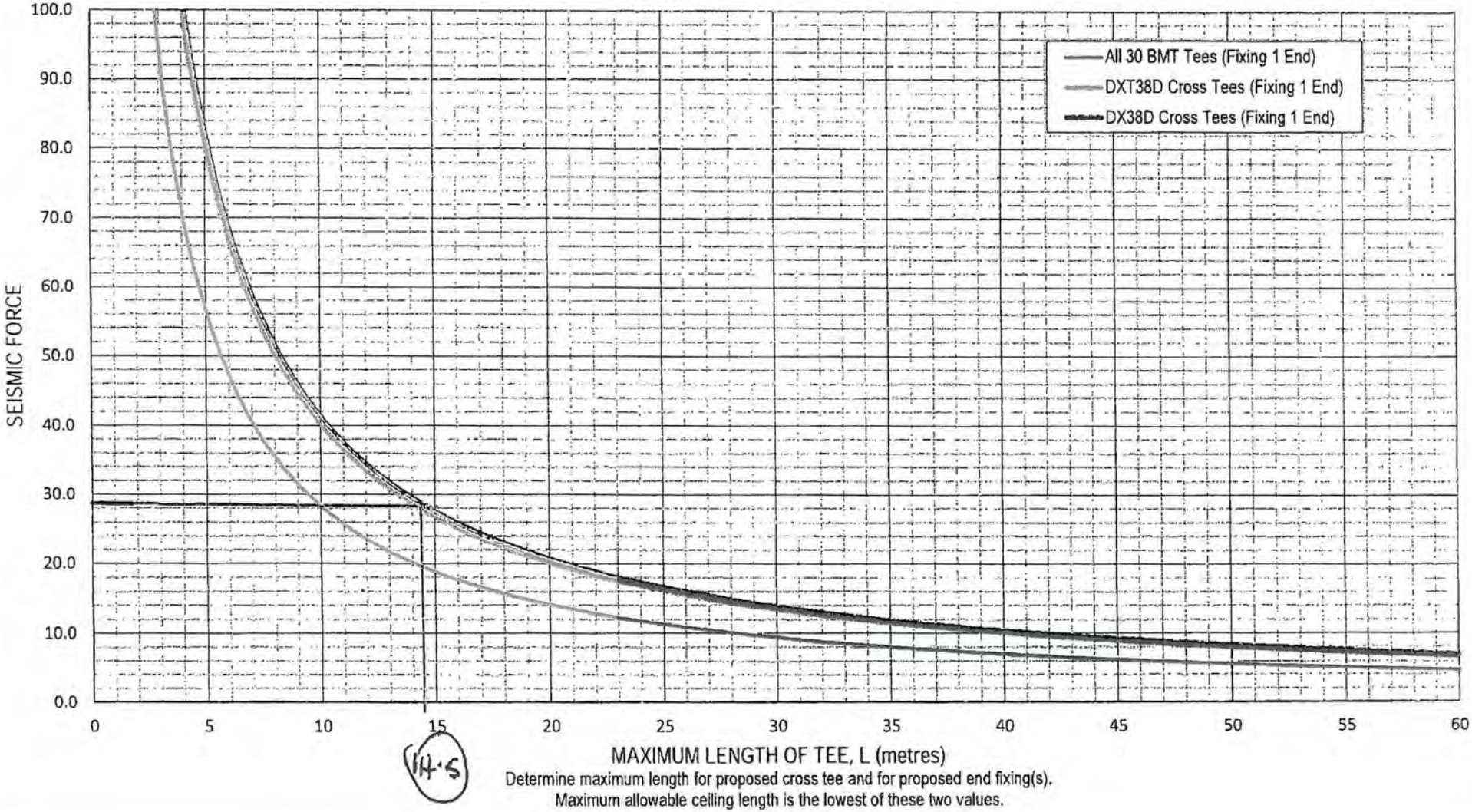


MAIN TEE DESIGN



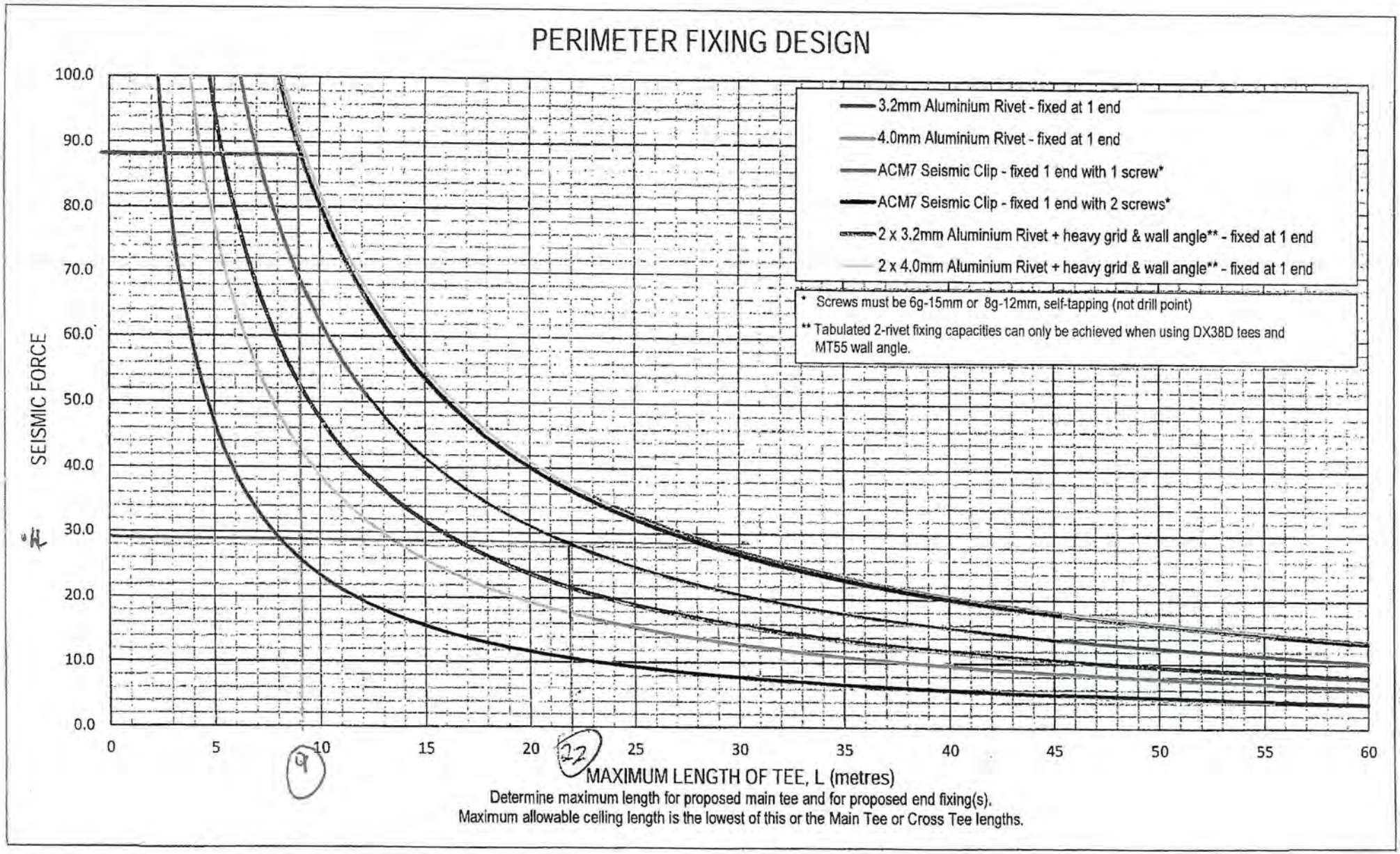
Determine maximum length for proposed main tee and for proposed end fixing(s).
Maximum allowable ceiling length is the lowest of these two values.

CROSS TEE DESIGN



Determine maximum length for proposed cross tee and for proposed end fixing(s).
Maximum allowable ceiling length is the lowest of these two values.

PERIMETER FIXING DESIGN



Determine maximum length for proposed main tee and for proposed end fixing(s).
Maximum allowable ceiling length is the lowest of this or the Main Tee or Cross Tee lengths.

Bank of New Zealand

BNZ Waipukurau

Project No: 4-M0633.01

CONSTRUCTION / 11/11/2014

OPUS architecture

COMMON ABBREVIATIONS

AP	=	Access Panel
AFFL	=	Above Finished Floor Level
AS	=	Australian Standard
BCA	=	Building Consent Authority
B/S	=	Both Sides
Code	=	Building Code
CL	=	Centre Line
crs	=	Centres
COS	=	Check (Confirm) on Site
CHS	=	Circular Hollow Section
CB	=	Coach Bolt
CS	=	Coach Screw
Conc	=	Concrete
cj	=	Control Joint
CGI	=	Corrugated Iron
CUPD	=	Cupboard
DPC	=	Damp Proof Course
DPM	=	Damp Proof Membrane
Dia	=	Diameter
Dim	=	Dimension
DHS	=	Dimond Hi-Span (Metal Purlin)
DB	=	Distribution Board
Dg	=	Double Glazing
DP	=	Downpipe
Dwg	=	Drawing
DW	=	Dishwasher
ej	=	Expansion Joint
eq	=	Equal
Ea	=	Equal Angle
EXT	=	Extinguisher (Fire)
FA	=	From Above
FHR	=	Fire Hose Reel
fg	=	Fixed Glazing
FCL	=	Finished Ceiling Level
FGL	=	Finished Ground Level
Fin	=	Finished
FWG	=	Floor Waste Gully
FFL	=	Finished Floor Level
FRR	=	Fire Resistance Rating
GT	=	Gully Trap
Galv.	=	Galvanised
Horz	=	Horizontal
HG	=	Hot Dipped Galvanised
HT	=	Hose Tap
HWC	=	Hot Water Cylinder
ID	=	Inside Diameter
IL	=	Invert Level
IO	=	Inspection Opening
kW	=	Kilowatt
Max	=	Maximum
MS	=	Mild Steel
mm	=	Millimetre
Min	=	Minimum
MSB	=	Main Switch Board
m²	=	Square Meter
NZS	=	New Zealand Standard
NZBC	=	New Zealand Building Code
Nom	=	Nominal
NTS	=	Not To Scale
od	=	Outside diameter
O/A	=	Overall
O/F	=	Over Flow
O/H	=	Overhead
ov	=	Oven
PFC	=	Parallel Flange Channel
pc	=	Precast Panel
R	=	Radius
RF	=	Fridge (refridgerator)
RL	=	Reduced Level
ref	=	Reference
rev	=	Revision
RC	=	Reinforced Concrete
RO	=	Rough Opening
ROW	=	Right of Way
RHS	=	Rolled Hollow Section
RH	=	Rangehood
RWH	=	Rain Water Head
Sk	=	Sink
SED	=	Small End Diameter
SH	=	Shower
sim	=	Similar
SP	=	Soil Pipe
Spec	=	Specification
SHS	=	Square Hollow Section
S.S	=	Stainless Steel
SSL	=	Structural Surface Level
STC	=	Sound Transimition Class
SOP	=	Setting Out Point
TV	=	Terminial Vent
T&G	=	Tounge and Groove
TOW	=	Top Of Wall
TBC	=	To Be Confirmed
u/s	=	Underside
UB	=	Universal Beam
UC	=	Universal Column
UR	=	Urinal
Vert.	=	Vertical
WHB	=	Wash Hand Basin
WC	=	Water Closet (Toilet)

DRAWING ANNOTATION

EXPRESSION OF LEVELS

Levels are shown in terms of city datum (mean sea level = 0)
Levels are as per AS1000 301 - 1985

+	Spot Level
RL:	Existing Level
FFL:	Finished Floor Level
FCL:	Finished Ceiling Level
SSL:	Structural Surface Level
RL: ▼	Relative Level shown on sections, elevations and sectional details

WALL FINISHES SYMBOL

S / 1 — Wall Function:
- **S** Standard
- **W** Wet
- **F** Fire
- **A** Acoustic
- **B** Bracing

Lining Type (refer to drawing)

CEILING HEIGHT SYMBOL

CH: 2400 AFL — Ceiling height above structural finished floor level

WALL BRACING SYMBOL

GIB1 — Type
1.2 | 2.4 — Height
Length

KEYNOTE DESCRIPTION

Specification Section
Sequence Number
Generic Description

4200.01 Profiled Vertical Metal Cladding

INTERIOR ELEVATION KEY

A, B, C, D — Wall Reference for Internal Elevation & Schedule of Work and finishes

ACCESSIBILITY LEGEND

— — —	Indicates accessible route 1200mm wide minimum
S1	Provide and install accessible entrance sign, Deneefe DNM3 120x120mm, or equal. Sign to be installed 1400-1700mm above the floor
S2	Provide and install accessible toilet sign, Lockwood LW BRS0702 (160x160mm) or equal. Sign to be installed 1400-1700mm above the floor

Signs to have lettering and symbols in clear contrast with the background. The size, type, and layout of lettering on signs shall be clear and legible (recommended fonts are Arial, Times New Roman or Helvetica Medium).

Accessible Requirements :
Light switches to align horizontally with the door handle

Socket outlets to be located 500-1200mm above the floor and a minimum of 500mm from any corner

Electronic access units for swipe cards, key pads, door activating buttons, etc. shall have a level, stable, firm, slip resistant floor surface of 1200 x 1200mm minimum adjacent to the access unit; be installed at 900 - 1200mm above the finished floor level (1000mm is optimal); be installed no less than 500mm from an internal corner; be installed adjacent to the door under control; and have sufficient time delay for the door to be opened before the locking system re-activates

All fittings within the accessible toilets and showers are to comply with NZS:4121 Access & Mobility

Refer to specification for fitting and fixture details

GENERAL NOTES:

The Architectural drawings shall be read in conjunction with the associated specifications and conditions of contract. The drawings shall also be read in conjunction with the structural, services, civil and other project documents. Any discrepancies in the architectural drawings or between and consultant documents shall be referred to the Architect for resolution

Verify all dimensions with structural, services, civil and other project documents prior to construction commencing. Refer all discrepancies to the Architect for resolution

Substitution for or amendment of specified details or material shall not be carried out without prior approval of the Architect

All work shall comply with the NZBC, all relevant Local Authority bylaws, NZS 3604, and all relevant standards

All work to be carried out in accordance with drawings and specification provided

All work to be undertaken to be best trade practice for each respective trade. Any substandard work or building material defects shall be the Contractors responsibility to remove, repair or replace at no extra cost to the contract

The Contractor shall ensure that all rubbish is removed from site during and at the end of the contract works

The Contractor shall provide the appropriate temporary fencing, hoarding, guardrails and signage as necessary to protect the public and others during the contract works and to meet the requirements of the Local and Territorial Authorities

All timber shall be H1.2 treated graded SG-8 unless stated otherwise

Refer to the Structural Engineer's drawings and specification for steelwork and timber framing sizes

Refer to the Service Consultants drawings and specification for all services and equipment requirements

AREA CALCULATION METHODOLOGY

Calculation methodology has been based on the 2010 BOMA standard of measurement for office spaces and is summarised as follows:

GROSS FLOOR AREA:
Line of external face of exterior walls and centreline of inter-tenancy walls

RENTABLE FLOOR AREA:
Line of internal face of exterior walls and centreline of inter-tenancy walls

AREA SCHEDULE:

Item		Area	Coverage %
Overall Site Area	=	XXXm²	
Gross Building Area	=	XXXm²	XX%
Overall Building Footprint Area (Roof overhang)	=	XXXm²	XX%
Hard Landscaping	=	XXXm²	XX%
Soft Landscaping	=	XXXm²	XX%

ROOM SCHEDULE

REF.	ROOM NAME	OCCUPANT	AREA (m²)
1	STAFF ROOM		55.5 m²
2	LOBBY		2.6 m²
3	CLNRS CUPB		1.0 m²
4	ACC WC		3.8 m²
5	WC		1.9 m²
101-18	BA OFFICE		8.4 m²
101-19	BACK OF HOUSE		22.7 m²
101-20	FRONT OF HOUSE		46.4 m²
101-21	HUB		6.3 m²
101-22	AFTER HOURS LOBBY		19.3 m²

KEYNOTE LEGEND

CODE	GENERIC DESCRIPTION

DRAWING TRANSMITTAL REGISTER

SHEET NO.	SHEET NAME	REVISION			
	Day		07	29	11
	Month		10	10	11
	Year		14	14	14
A002	INDEX SHEET	1	A	B	1
A010	LOCATION PLAN	1	A	B	1
A020	EXISTING SITE PLAN	1	A	B	1
A030	PROPOSED SITE PLAN	1	A	B	1
A100	BASE BUILD_ FLOOR PLAN	1	A	B	1
A105	FIT-OUT_ GENERAL LAYOUT PLAN	1	A	B	1
A110	ROOF PLAN	1	A	B	1
A115	BASE BUILD_ REFLECTED CEILING PLAN	1	A	B	1
A200	EXTERNAL ELEVATION - FRONT	1	A	B	1
A201	EXTERNAL ELEVATION - REAR	1	A	B	1
A202	EXTERNAL ELEVATIONS - SIDE	1	A	B	1
A300	G.A. BUILDING SECTIONS	1	A	B	1
A401	CONSTRUCTION DETAILS - SHT 2 OF 2	1		A	1
A405	PARAPET_ PANEL DETAILS	1		A	1
A406	PARAPET_ DETAILS - GRID E	1		A	1
A410	CANOPY/FACADE DETAILS	1		A	1
A412	CANOPY_ PANEL DETAILS	1		A	1
A420	SHOPFRONT DETAILS (PART 1)	1		A	1
A421	SHOPFRONT DETAILS (PART 2)	1		A	1
A426	INTERNAL DOOR DETAILS	1		A	1
A500	TOILET DETAILS	1		A	1
A600	FIT-OUT_ FLOOR PLAN	1		A	1
A601	FIT-OUT_ FLOOR AND WALL FINISHES PLAN	1		A	1
A602	FIT-OUT_ CARPET TILE LAYOUT	1		A	1
A603	FIT-OUT_ REFLECTED CEILING PLAN	1		A	1
A604	FIT-OUT_ FURNITURE & JOINERY PLAN	1		A	1
A605	FIT-OUT_ FURNIT & JOINERY SCHEDULE	1		A	1
A606	FIT OUT_TECHNOLOGY PLAN & SCHEDULE	1		A	1
A607	FIT-OUT_ SIGNAGE PLAN & ELEVATIONS	1		A	1
A608	FIT-OUT_WINDOW & DOOR SCHEDULE	1		A	1
A700	BASE BUILD_ DOOR SCHEDULE	1		A	1
A701	BASE BUILD_ WINDOW SCHEDULE	1		A	1

DISTRIBUTION		NO. OF COPIES ISSUED		
Client:		1		
Project Manager:			1	1
Contractor:				
Quantity Surveyor:				
Structural Engineer:				
Civil Engineer:				
Hydraulic Engineer:				
Mechanical Engineer:				
Electrical Engineer:				
Fire Engineer:				
Local Authority:				
ISSUE FORMAT:	D Disk, E Email, F Fax, H Hard Copy	E	E	E
ISSUE STATUS:	I Information, P Preliminary, A Approval, T Tender, C Construction, RAB As Record	P	P	P
APPROVED BY:		DH	SG	SG

LOCATION PLAN

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

A	Preliminary Issue	2014.10.07
B	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender issue	2014.11.11

FOR CONSTRUCTION

NOTES

OPUS architecture
Auckland Studio
PO Box 5848, Auckland 1010
New Zealand
+64 9 355 9500

Client
Bank of New Zealand

Project
BNZ Waipukurau
63 Ruataniwha Street
Waipukurau

Sheet Name
INDEX SHEET

SCALE @ A1= 1:1

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No A002

ARCHITECTURAL

0 10mm 50 100

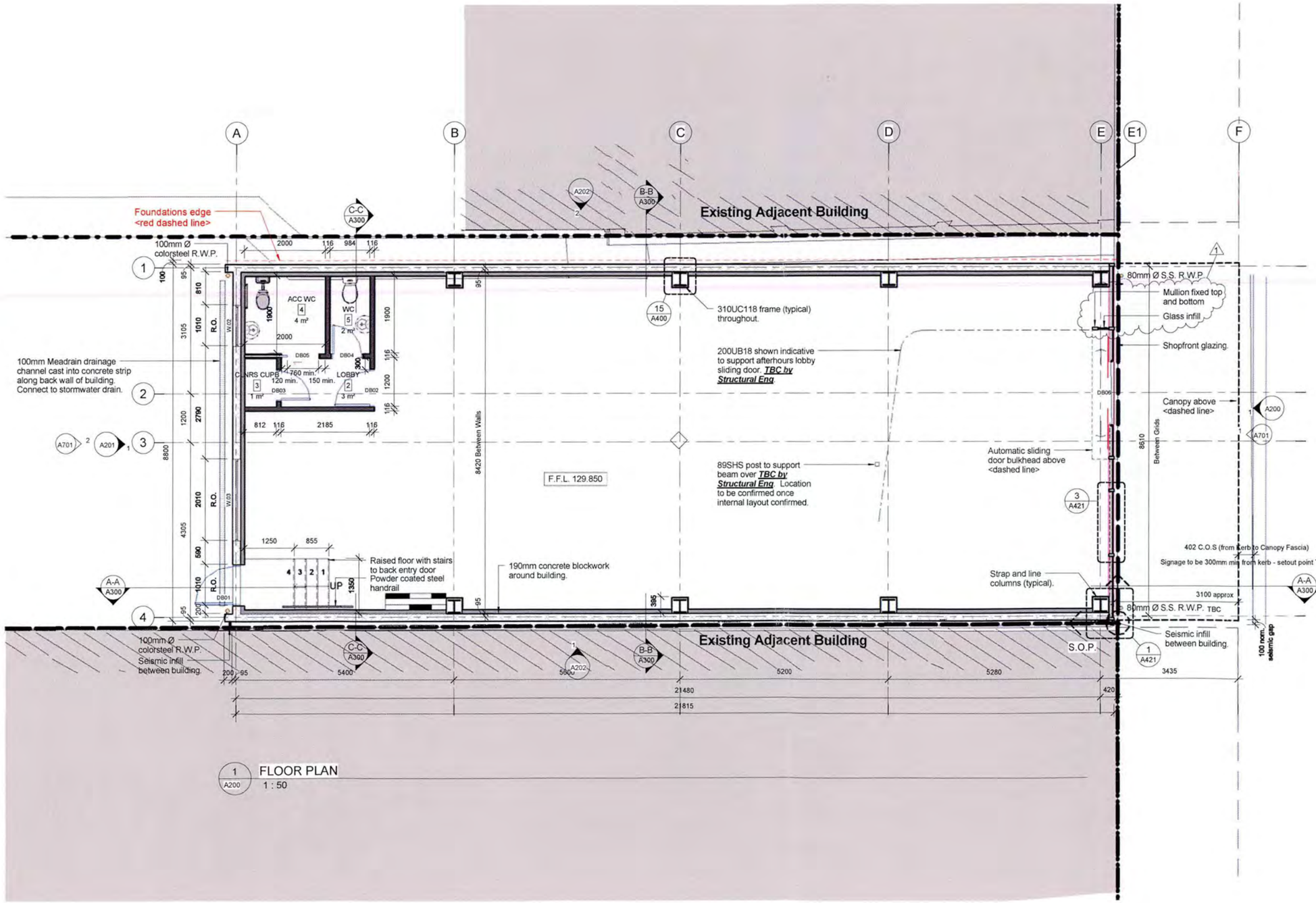
REVISIONS

A	Preliminary Issue	2014.10.07
B	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

NOTES

1. Remove all work shown hatched or dashed on the existing and demolition drawing
2. Visit the site and liaise with the Client to determine the full extent of fittings to be salvaged, stored or removed from the site for disposal. Check also the site, the building or structural work being demolished and any contents for likely hazard
3. Reinstate where any damage is caused by this demolition to those parts of the existing building, other buildings and the remainder of the site being retained
4. Where walls have been shown to be demolished this shall include the careful removal of any fixtures, fittings and furnishings associated with those walls



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Sheet Name

BASE BUILD_ FLOOR PLAN

SCALE @ A1= 1 : 50

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A100

ARCHITECTURAL

0 10mm 50 100

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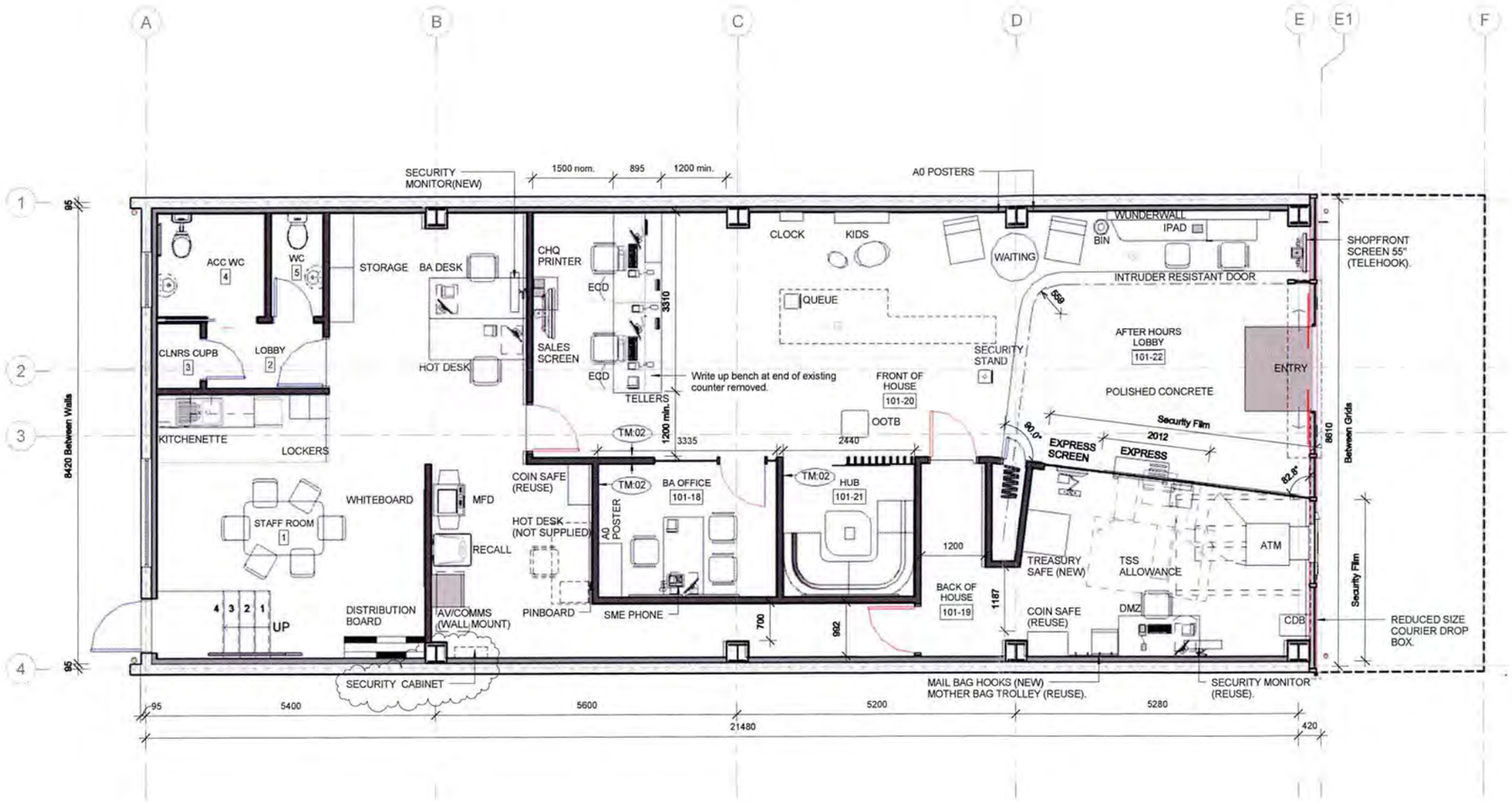

1 / A200 PROPOSED PLAN
1 : 50

FIT OUT LEGEND

- -Strapping to precast walls, insulated and lined.
- -92mm Steel stud internal partitions with13mm GIB plasterboard or MDF lining.
- -Potters full height internal glazing system.
- TM:02 -92mm Steel stud internal partitions with12mm MDF wall lining and TM:02 Timber Veneer.

STORE INFORMATION

GENERAL

STAFF No: 4.2 FTE's
WC's Required: 2 including 1x Accessible WC

SHOP KEY

SHOP FRONT
ATM: New
Courier drop box: New
Shopfront Screen: 55" Portrait

ELECTRICAL
COMMS Cabinet: New
PABX: New
Security Panel: Reuse
Distribution Board: New

PLUMBING
Accessible WC: New
Cleaner's sink: New
Kitchenette: New

CEILING
New Ceiling grid and tile
All services designed by Engineers to suit

FLOORING
FOH & BOH: Carpet tiles
After Hour Lobby: Polished Concrete
Kitchen & Accessible WC: Vinyl

SAFES
Coin Safes x2: 1 Existing to be reused x 1 New
Treasury Safe: New

FURNITURE
Items to be reused indicated on Sheet A605 - Fit-out_Furniture & Joinery Schedule.

REVISIONS

A	Preliminary Issue	2014.10.07
B	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

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Sheet Name
FIT-OUT_ GENERAL LAYOUT PLAN

SCALE @ A1= 1 : 50

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A105

ARCHITECTURAL

Original sheet size A1 (841x594) Plot date: 11/11/2014 5:39:47 PM C:\Projects\BNZWA_Tender_2014_Central_auvhr0.rvt

0 10mm 50 100

1 / A200 LOCATION PLAN
1 : 250 @ A1

Original sheet size A1 (841x594) Plot date: 11/11/2014 5:39:40 PM C:\Projects\BNZWA_Tender_2014_Central_auvhr0.rvt

0 10mm 50 100

REVISIONS

A	Preliminary Issue	2014.10.07
B	Draft Consent and Tender Issue	2014.10.29
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Sheet Name
LOCATION PLAN

SCALE @ A1= 1 : 250 @ A1

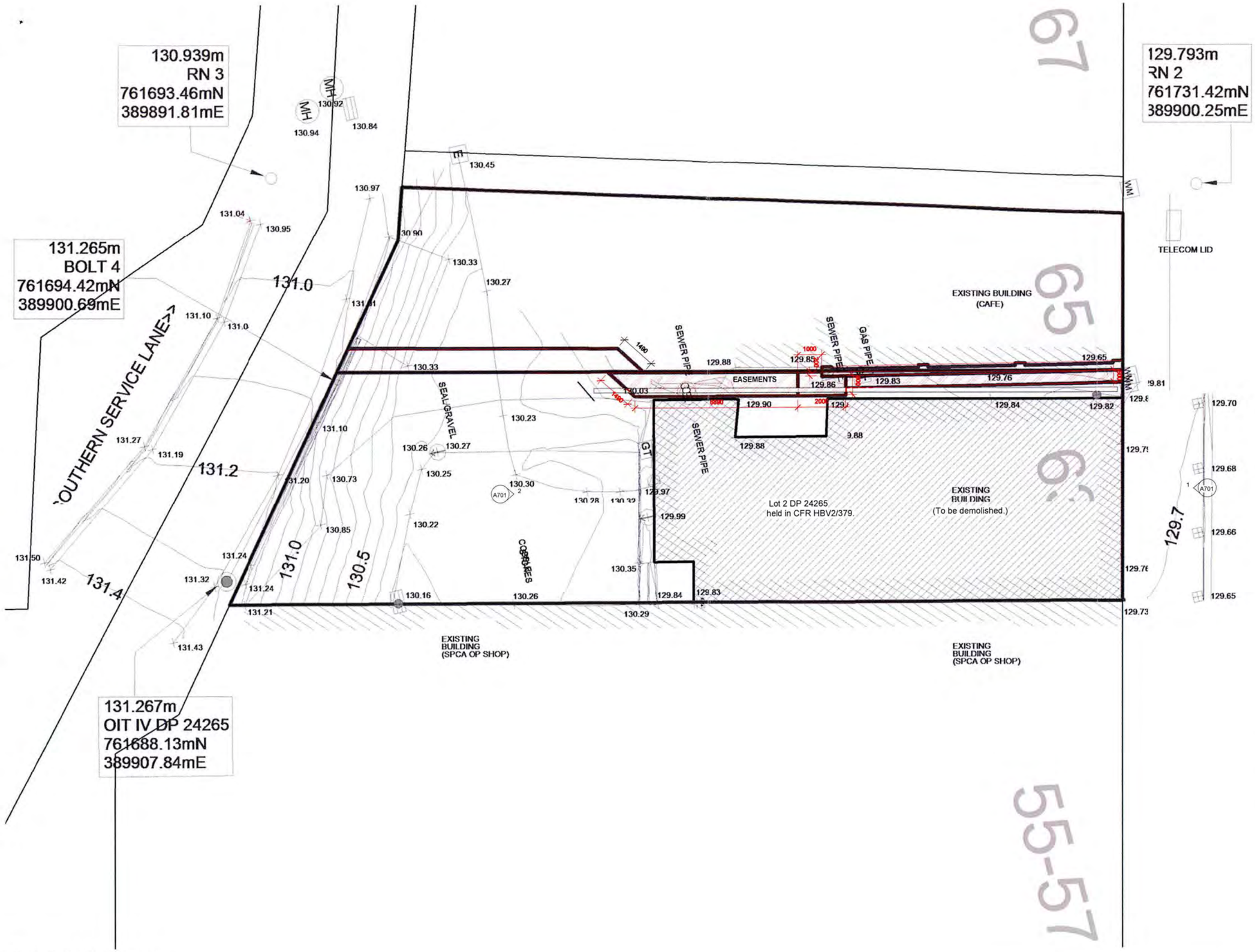
North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A010

ARCHITECTURAL



1 / A200 SITE PLAN_ EXISTING
1 : 75 @ A1

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0 10mm 50 100

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

A	Preliminary Issue	2014.10.07
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1	Consent and Tender Issue	2014.11.11

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Sheet Name
EXISTING SITE PLAN

SCALE @ A1= 1 : 75 @ A1

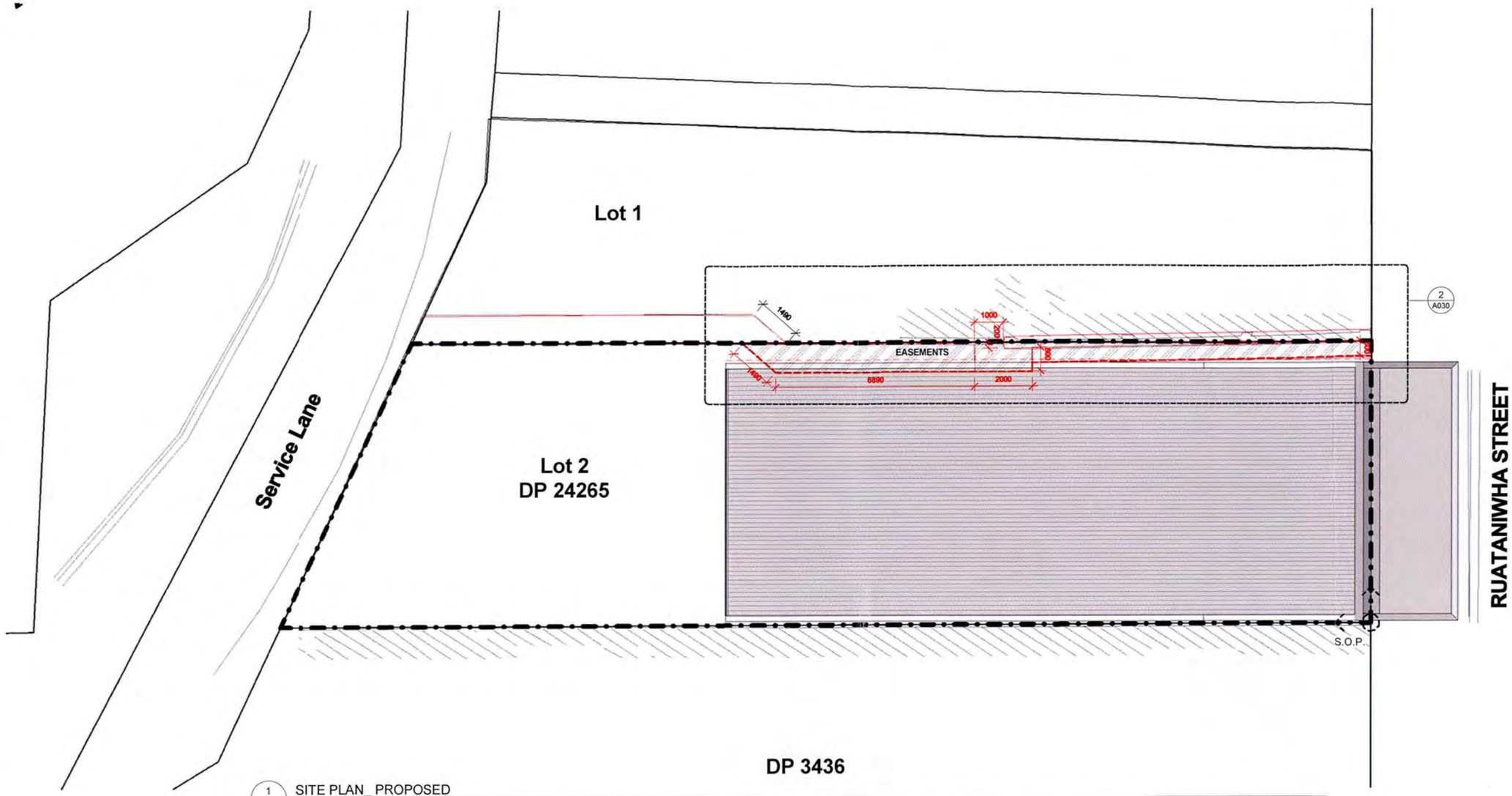
North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

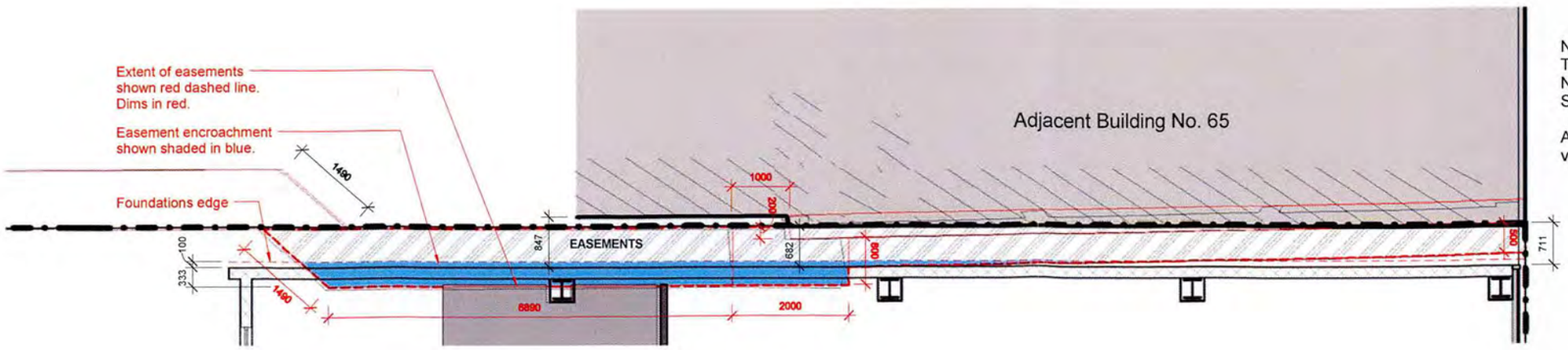
Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A020

ARCHITECTURAL



1 A200 SITE PLAN_ PROPOSED
1 : 75 @ A1



2 A030 Adjacent Building Interface
1 : 50

NOTE:
This drawing is based on Survey Drawing No. 4-M0633.00/1_R0 (Site Development Survey Dossier NA_14_032) April 2014.

All dimensions are to be checked and verified on site.

0 10mm 50 100

DO NOT SCALE

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REVISIONS

A	Preliminary Issue	2014.10.07
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Sheet Name
PROPOSED SITE PLAN

SCALE @ A1= As indicated

North

DESIGN	VR
DRAWN	VR
VERIFIED	XXX
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A030

ARCHITECTURAL

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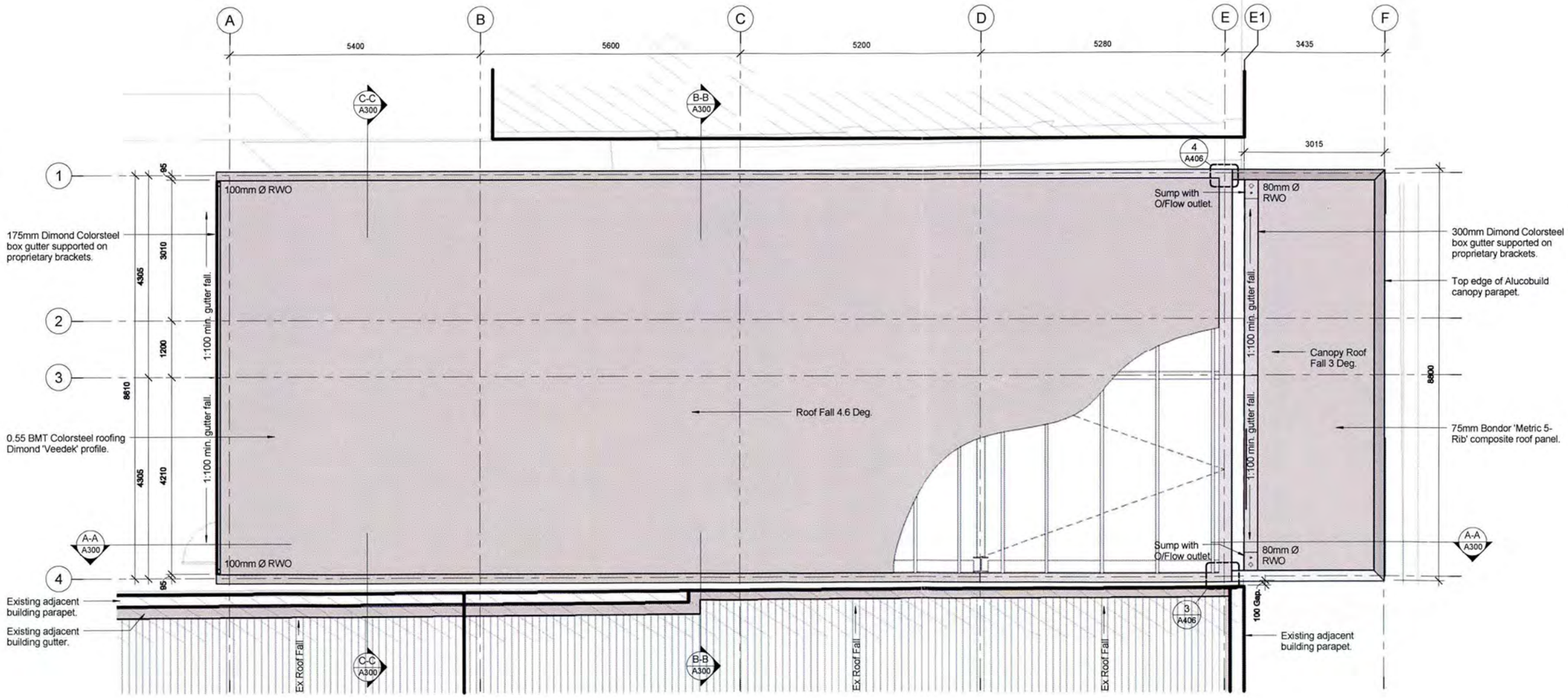

1 A200 ROOF PLAN
1 : 50

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

A	Preliminary Issue	2014.10.07
B	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

NOTES

Refer to the Mechanical Services drawings for all roof penetrations, extract fans, drainage stacks, vent pipes and air handling unit connections.

Allow for flashings and sealing of roof penetrations to achieve weatherproof roofing cladding

SPOUTING CAPACITY:
175mm Box gutter = 19,250mm²
300mm Box gutter = 33,550mm²

DOWNPIPE CAPACITY:
74mm Ø internal downpipe = 85m² Roof Area drained.
100mm Ø internal downpipe = 155m² Roof Area drained.

MAIN ROOF:
185m² roof area = 2 min. 100mm Ø downpipes.
2 No. downpipes provided.

CANOPY ROOF:
26.4m² roof area = 1 min. 80mm Ø downpipe.
2 No. downpipes provided.

Main Roof Drainage Parameters:
Roof Area: 185 Sq m
Roof Pitch: 0-25 Deg. (4.6 Deg.)
Rainfall Intensity: 100mm/hr
Required Gutter C.S.A.: 9,000 Sq mm min. for half roof area of 92.5 Sq m.
NOTE: 175mm Box gutter = 19,250 Sq mm provided.
Gutter Fall: 1:100 min.
Required Downpipe Size: 2 x 100mm Dia. min.
NOTE: 2 x 100mm Dia. Downpipes provided.

Canopy Roof Drainage Parameters:
Roof Area: 26.4 Sq m
Roof Pitch: 0-25 Deg. (3 Deg.)
Rainfall Intensity: 100mm/hr
Required Gutter C.S.A.: 4,000 Sq mm min. for half roof area of 13.2 Sq m.
NOTE: 300mm Box gutter = 33,550 Sq mm provided.
Gutter Fall: 1:100 min.
Required Downpipe Size: 1 x 80mm Dia. min.
NOTE: 2 x 80mm Dia. Downpipes provided.

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Sheet Name
ROOF PLAN

SCALE @ A1= 1 : 50

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

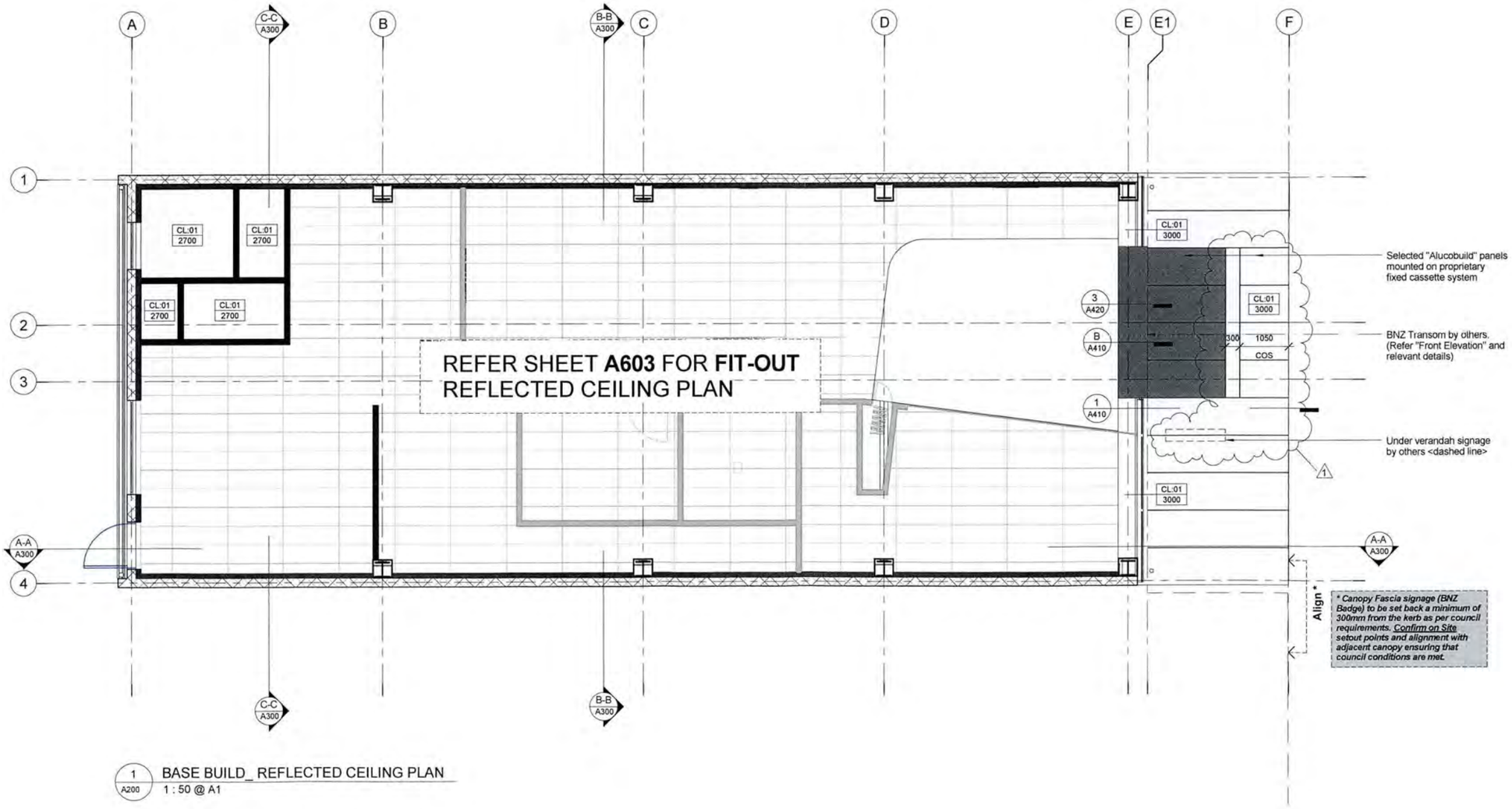
Revision	Sheet No.
1	A110

ARCHITECTURAL

0 10mm 50 100

CEILING LEGEND

CL01	New Gib board ceiling on suspended ceiling system Painted PA:01
CL02	New Gib Aqualine board ceiling on suspended ceiling system Painted PA:01
CT01	BOH suspended ceiling 1200x600mm VT15 AMF Thermatex acoustic ceiling tiles 15mm Grid
CT02	FOH ceiling system 1200x400mm VT15 AMF Thermatex acoustic tegular edged ceiling tiles 15mm Grid
CC01	Alucobuild cladding system



1 / A200 BASE BUILD_ REFLECTED CEILING PLAN
1 : 50 @ A1

0 10mm 50 100

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

A	Preliminary Issue	2014.10.07
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Sheet Name
BASE BUILD_ REFLECTED CEILING PLAN

SCALE @ A1= As indicated

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A115

ARCHITECTURAL

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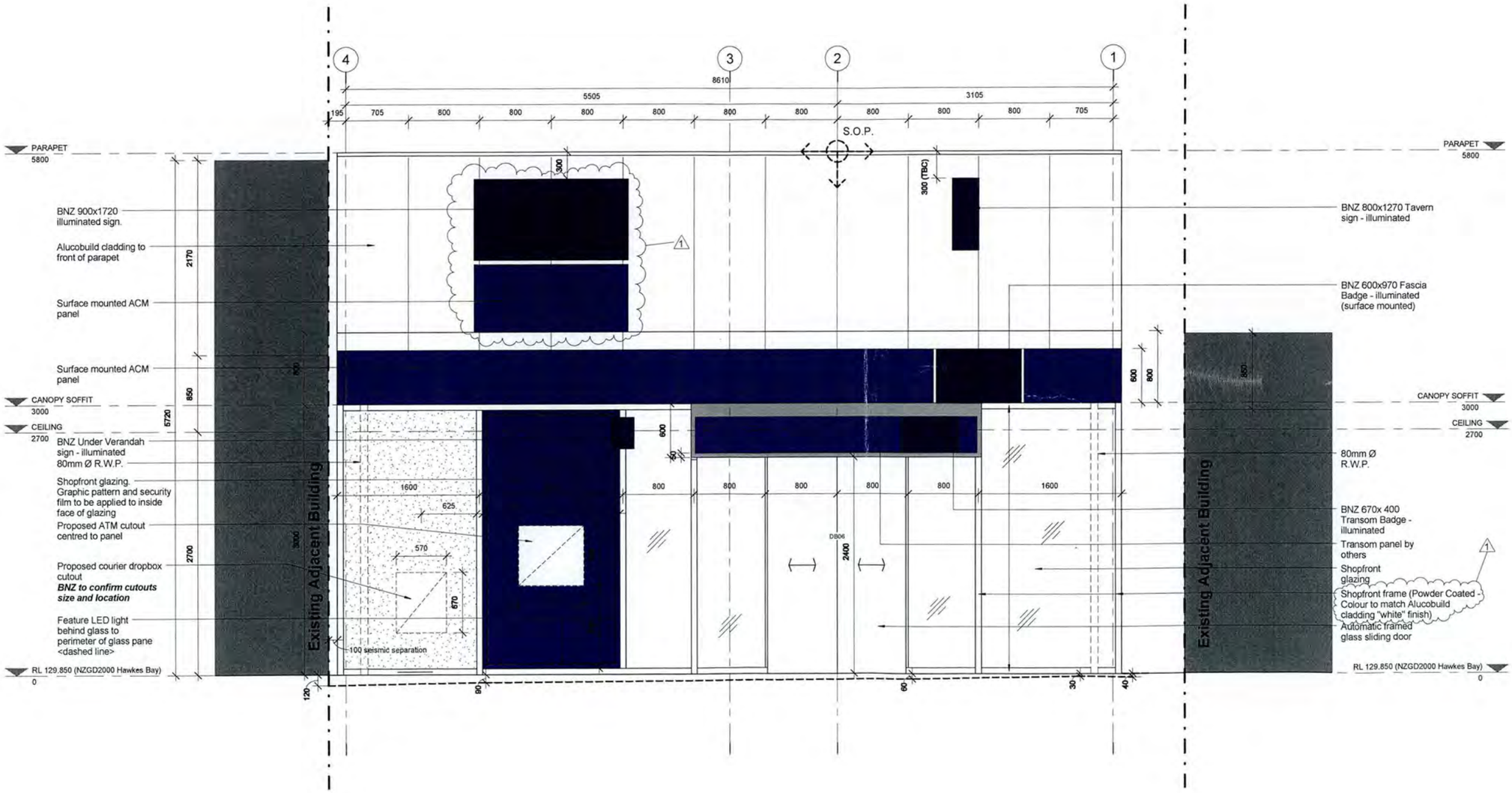

1 / A100 FRONT ELEVATION
1 : 25 @ A1

DO NOT SCALE

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REVISIONS

*	A	Preliminary Issue	2014.10.07
*	B	Draft Consent and Tender Issue	2014.10.29
*	1	Consent and Tender Issue	2014.11.11

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Sheet Name
EXTERNAL ELEVATION - FRONT

SCALE @ A1= 1 : 25 @ A1

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A200

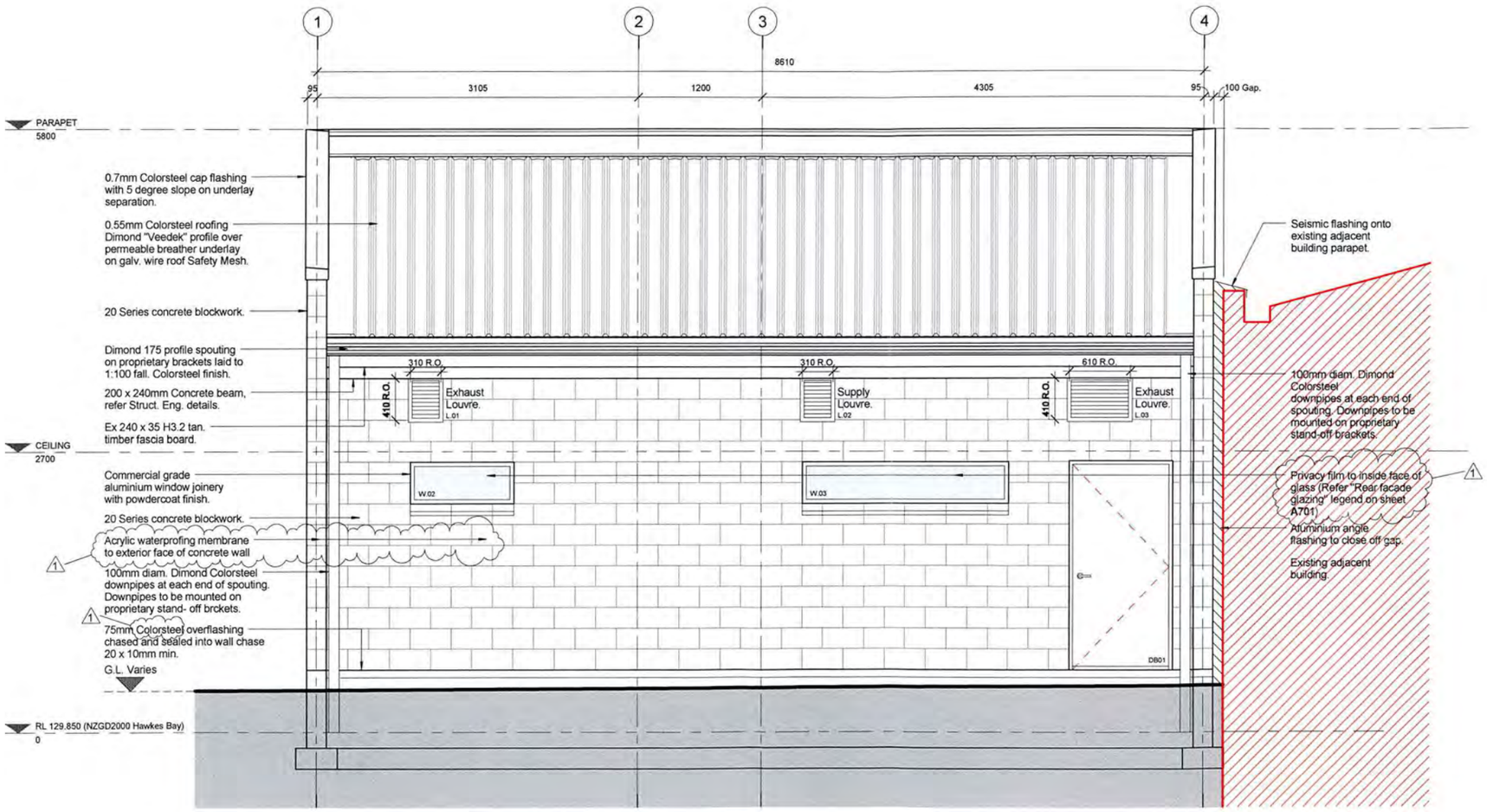
ARCHITECTURAL

0 10mm 50 100

CONCRETE WATERPROOFING NOTE

All exterior/exposed concrete surfaces to be coated with Resene X-200 concrete waterproofing membrane. Refer Architectural Specifications for surface preparation and system details.
Colour: Resene Eighth Tapa
Total colour code: N78-005-103

1



1 / A100 REAR ELEVATION
1 :25 @ A1

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

*	A	Preliminary Issue	2014.10.07
	B	Draft Consent and Tender Issue	2014.10.29
*	1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

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Waipukurau

Sheet Name
EXTERNAL ELEVATION - REAR

SCALE @ A1= As indicated

North

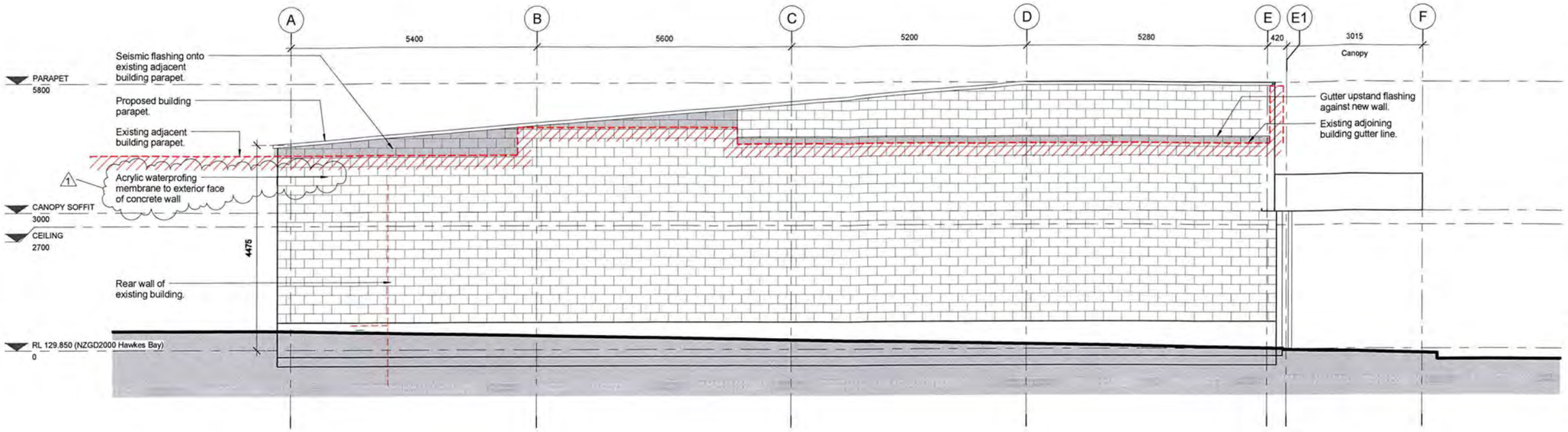
DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

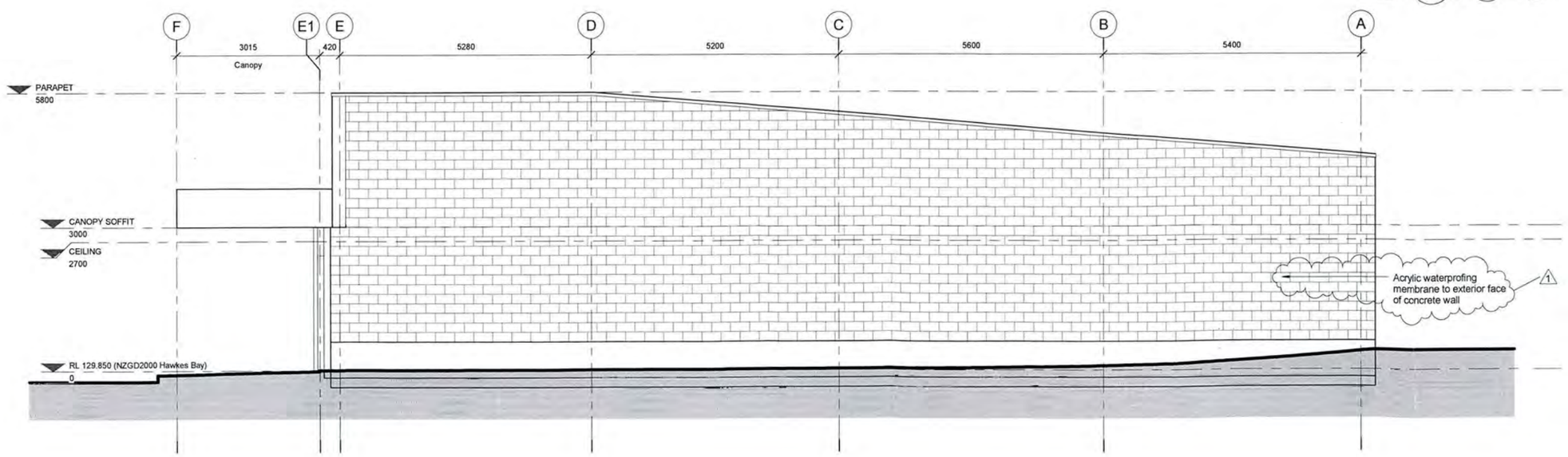
Revision	Sheet No.
1	A201

ARCHITECTURAL

0 10mm 50 100



1 / A100 SIDE ELEVATION (EAST)
1 : 50 @ A1



2 / A100 SIDE ELEVATION (WEST)
1 : 50 @ A1

CONCRETE WATERPROOFING NOTE

All exterior/exposed concrete surfaces to be coated with Resene X-200 concrete waterproofing membrane. Refer Architectural Specifications for surface preparation and system details.
Colour: Resene Eighth Tapa
Total colour code: N78-005-103

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

• A	Preliminary Issue	2014.10.07
• B	Draft Consent and Tender Issue	2014.10.29
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FOR CONSTRUCTION

NOTES

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Sheet Name
EXTERNAL ELEVATIONS - SIDE

SCALE @ A1= 1 : 50

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A202

ARCHITECTURAL

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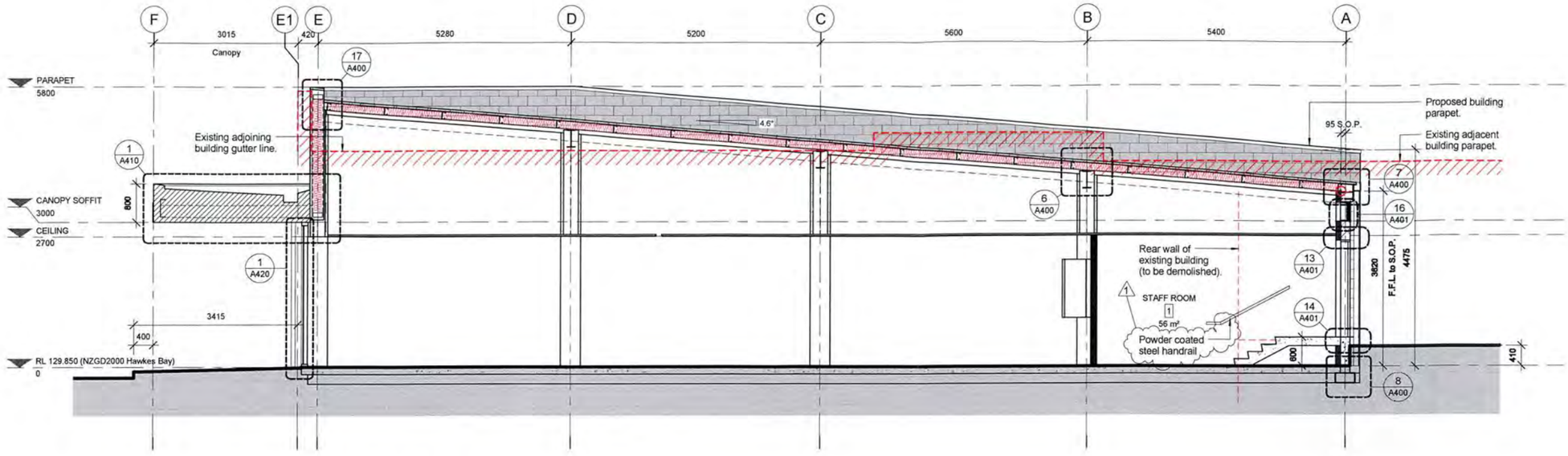
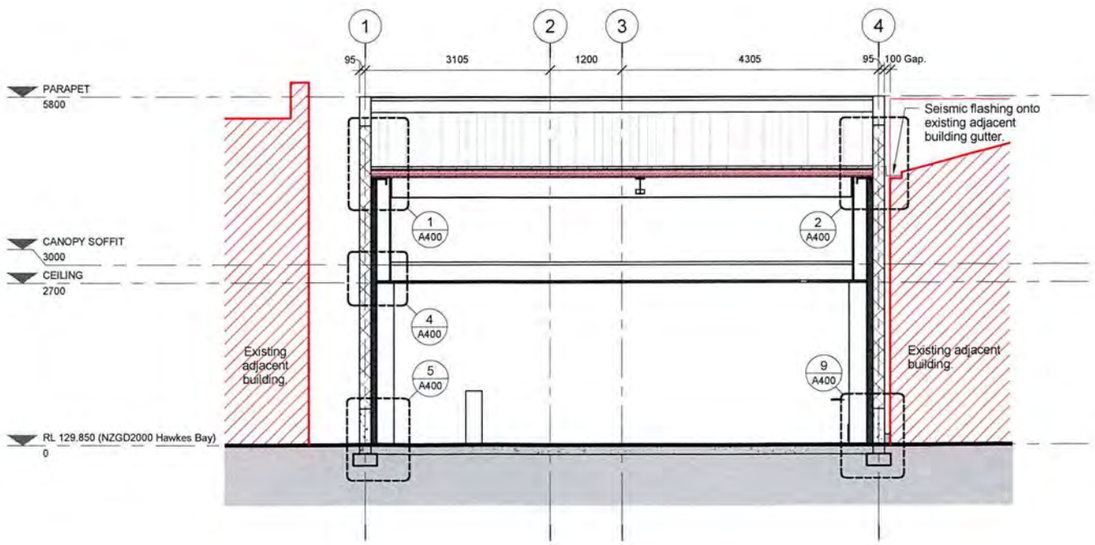
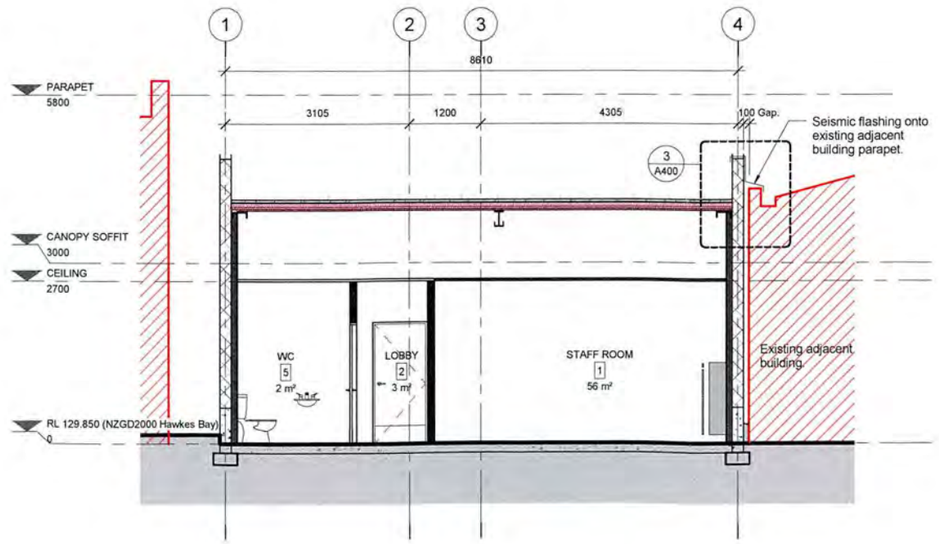


A-A / A100 G.A. Section A-A
1 : 50 @ A1



B-B / A100 G.A. Section B-B
1 : 50 @ A1



C-C / A100 G.A. Section C-C
1 : 50 @ A1

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

*	A	Preliminary Issue	2014.10.07
	B	Draft Consent and Tender Issue	2014.10.29
*	1	Consent and Tender Issue	2014.11.11

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Sheet Name
G.A. BUILDING SECTIONS

SCALE @ A1= 1 : 50 @ A1

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A300

ARCHITECTURAL

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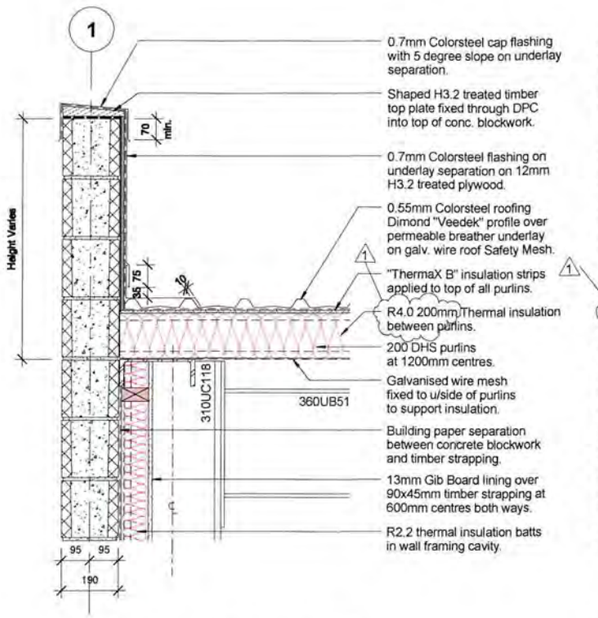
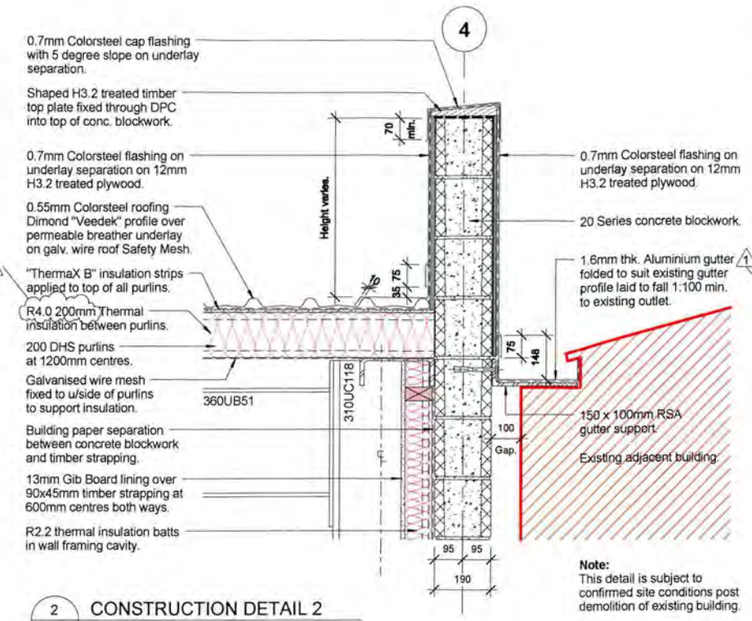
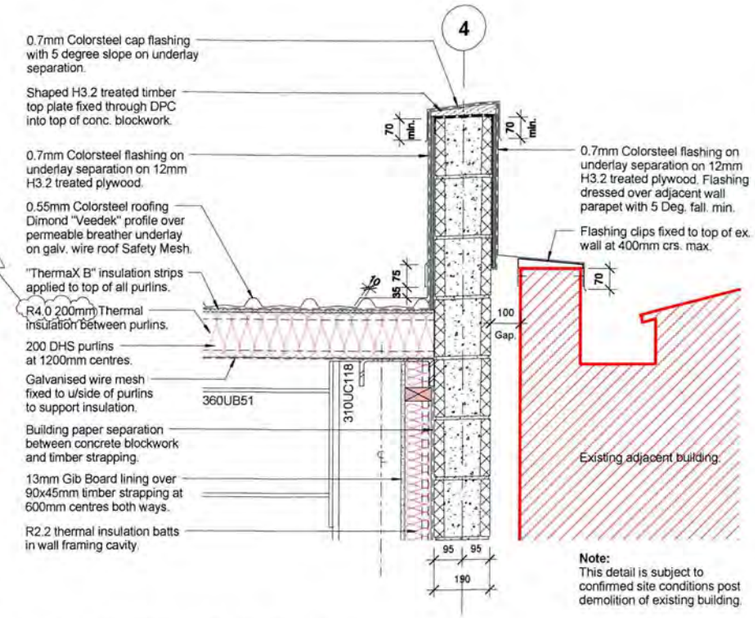


1 / A300 CONSTRUCTION DETAIL 1
1 : 10



2 / A300 CONSTRUCTION DETAIL 2
1 : 10



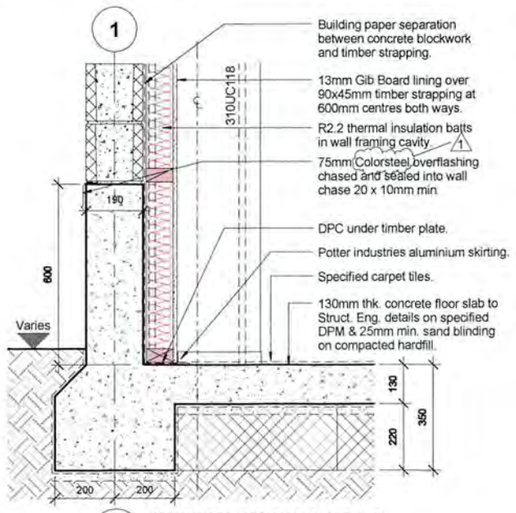
3 / A300 CONSTRUCTION DETAIL 3
1 : 10

4 / A300 CONSTRUCTION DETAIL 4
1 : 10

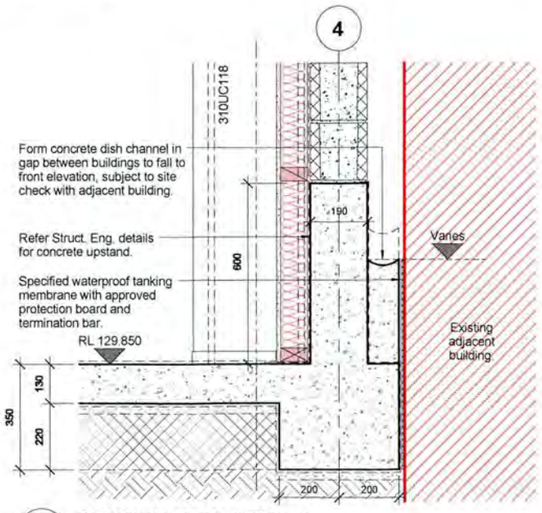
17 / A300 CONSTRUCTION DETAIL 17
1 : 10

6 / A300 CONSTRUCTION DETAIL 6
1 : 10

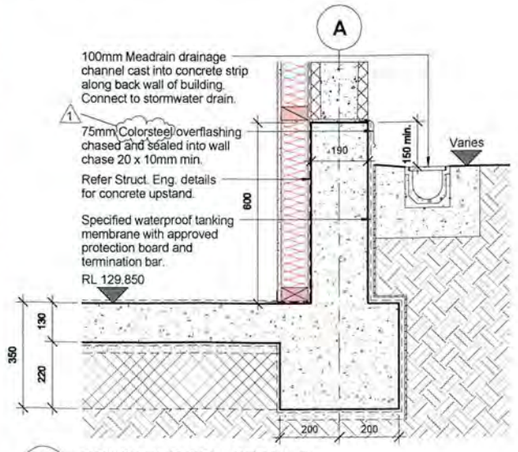
7 / A300 CONSTRUCTION DETAIL 7
1 : 10



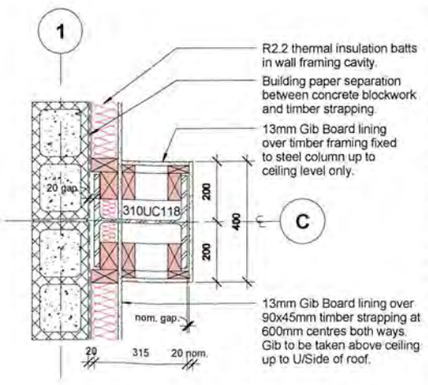
5 / A300 CONSTRUCTION DETAIL 5
1 : 10



9 / A300 CONSTRUCTION DETAIL 9
1 : 10



8 / A300 CONSTRUCTION DETAIL 8
1 : 10



15 / A100 CONSTRUCTION DETAIL 15
1 : 10

0 10mm 50 100

DO NOT SCALE

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REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

NOTES

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Waipukurau

Sheet Name
CONSTRUCTION DETAILS - SHT 1 OF 2

SCALE @ A1= 1 : 10

North

DESIGN	VR
DRAWN	PC
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision 1
Sheet No. A400

ARCHITECTURAL

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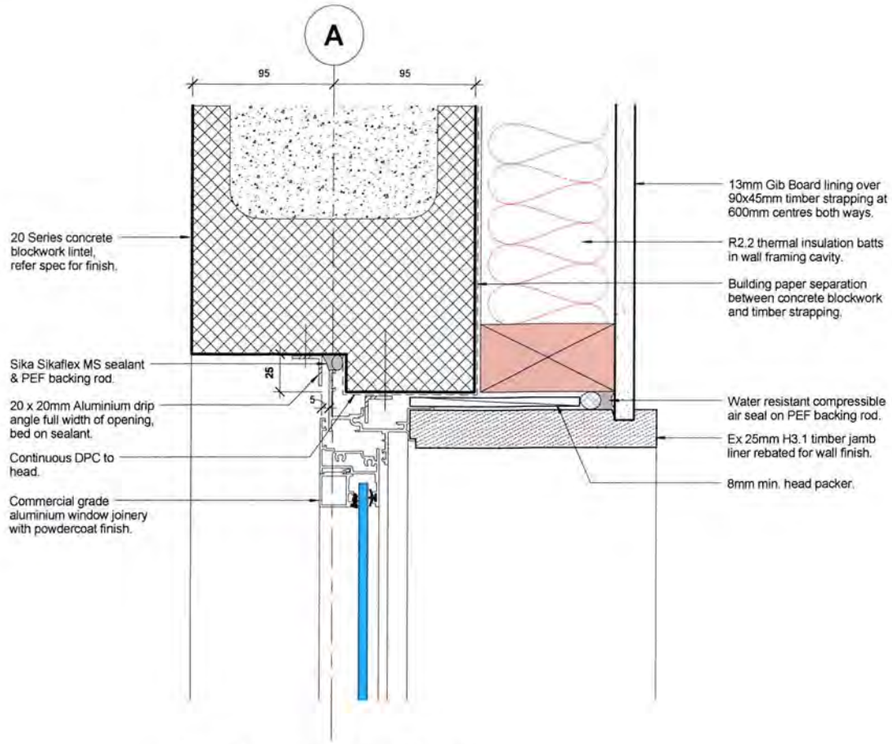
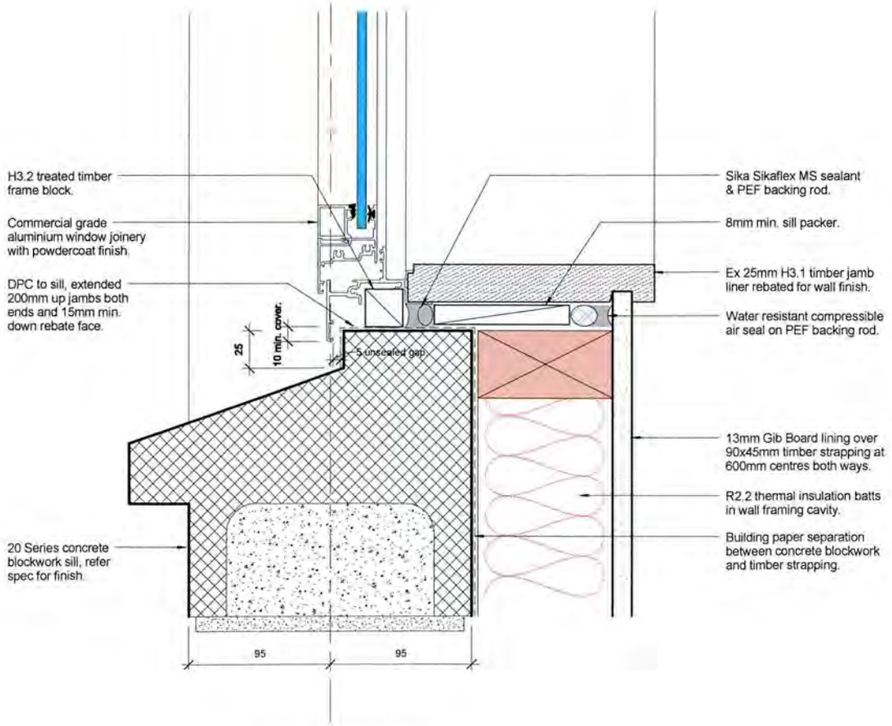
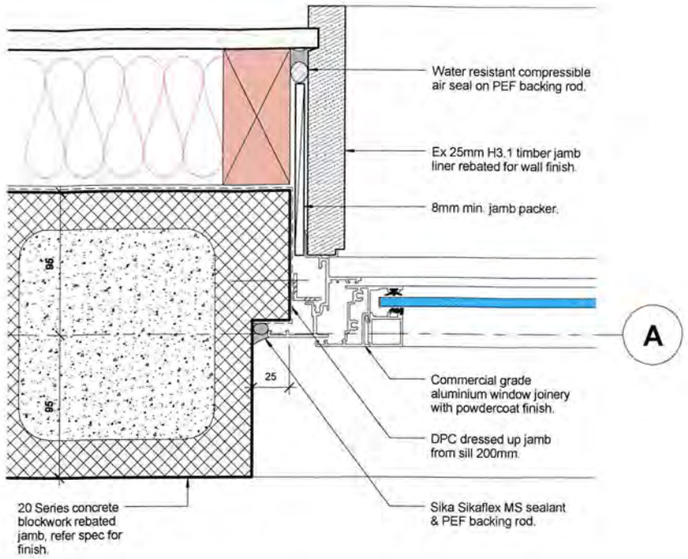


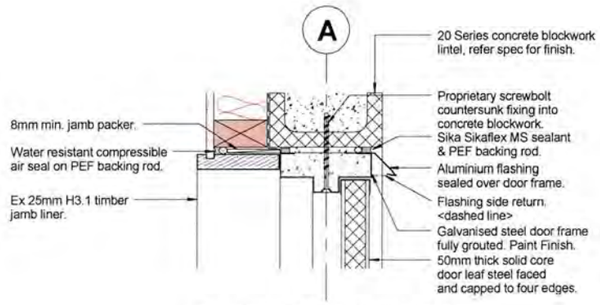
10 A701 CONSTRUCTION DETAIL 10
1 : 2



11 A701 CONSTRUCTION DETAIL 11
1 : 2

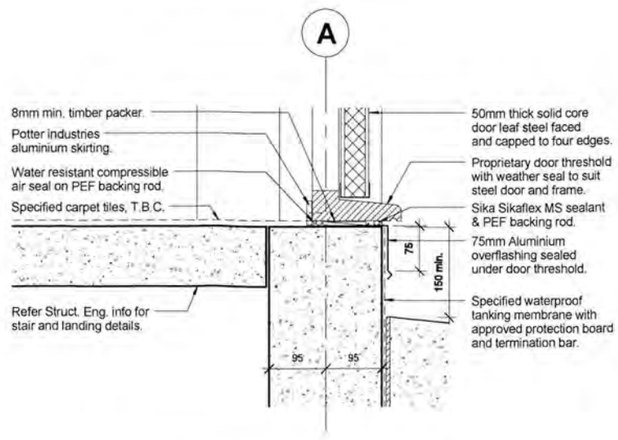


12 A701 CONSTRUCTION DETAIL 12
1 : 2

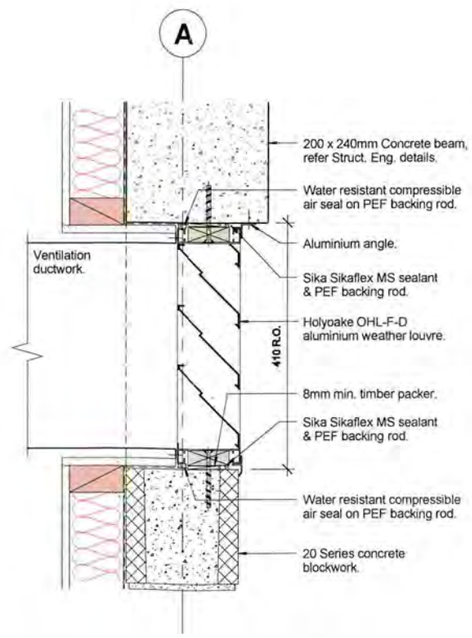


HEAD & JAMB DOOR DETAIL

13 A300 CONSTRUCTION DETAIL 13
1 : 5



14 A300 CONSTRUCTION DETAIL 14
1 : 5



16 A300 CONSTRUCTION DETAIL 16
1 : 5

0 10mm 50 100

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
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Sheet Name
CONSTRUCTION DETAILS - SHT 2 OF 2

SCALE @ A1= As indicated

North

DESIGN	VR
DRAWN	PC
VERIFIED	RA
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A401

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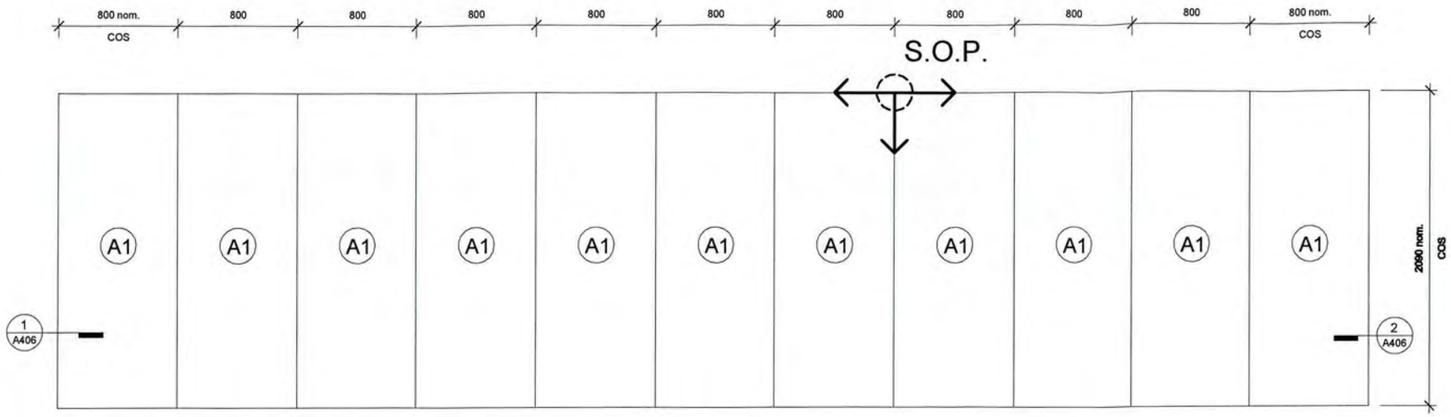
Original sheet size A1 (841x594) Plot date: 11/11/2014 5:39:54 PM C:\Projects\BNZWA_Tender_2014_Central_auvhr0.rvt



1 PARAPET_ FRONT ELEVATION
1 : 20

CLADDING LEGEND

A1 **"Alucobuild" panels** mounted on proprietary fixed cassette system. Colour: **White**

A2 **"Alucobuild" panels** mounted on proprietary fixed cassette system. Colour: **Silver**

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

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Sheet Name
PARAPET_ PANEL DETAILS

SCALE @ A1= As indicated

North

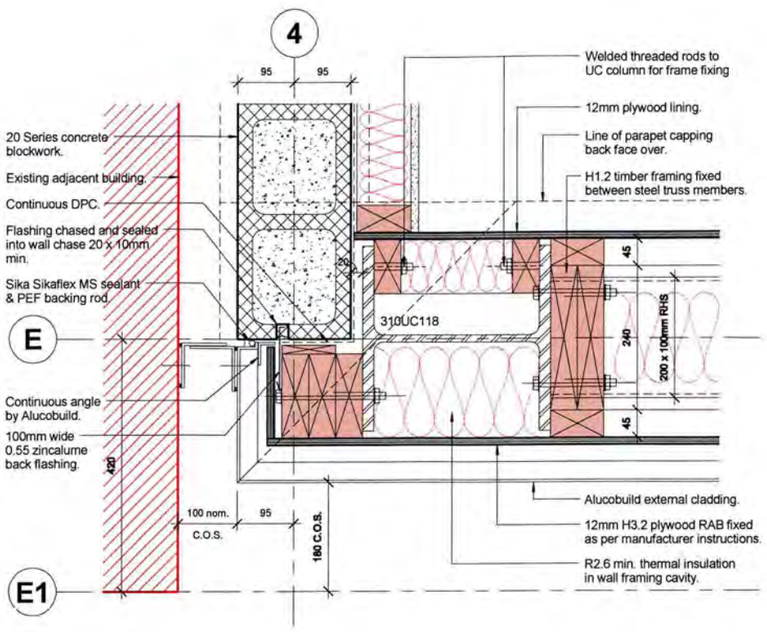
DESIGN	VR
DRAWN	PC
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

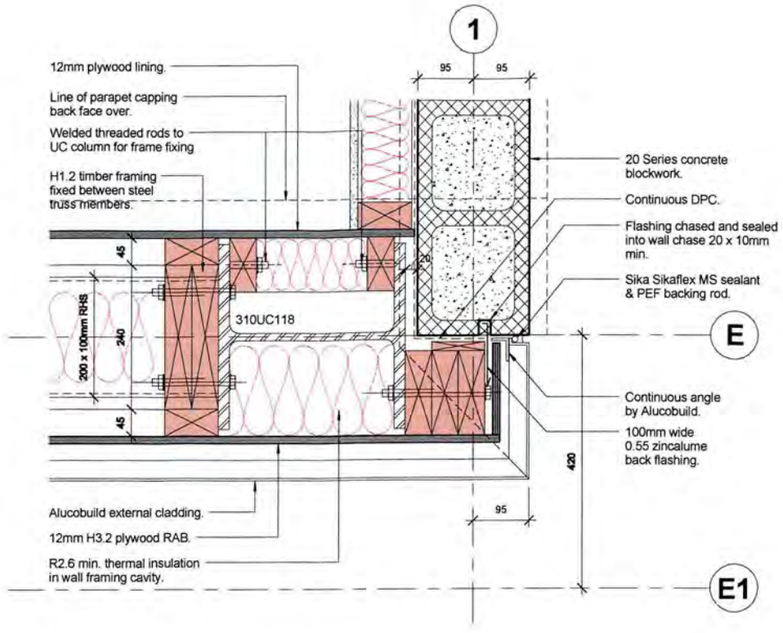
Revision	Sheet No.
1	A405

ARCHITECTURAL

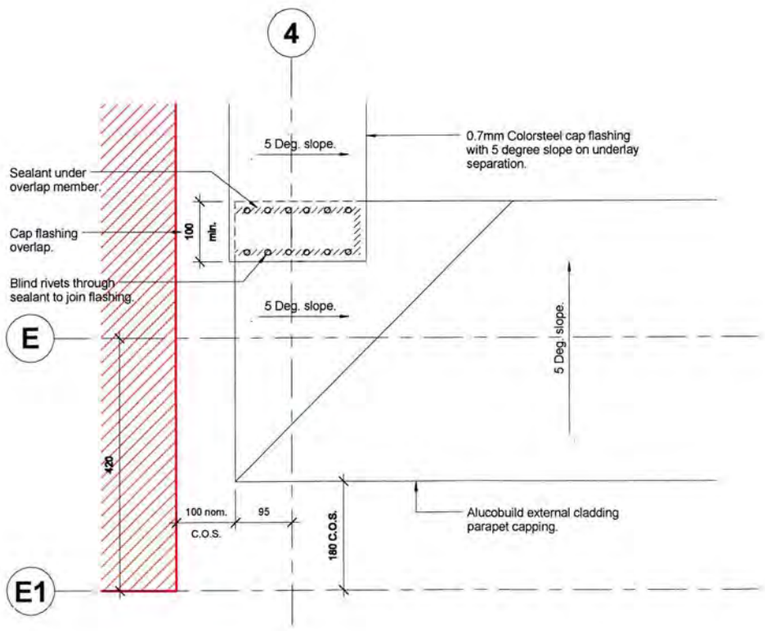
0 10mm 50 100



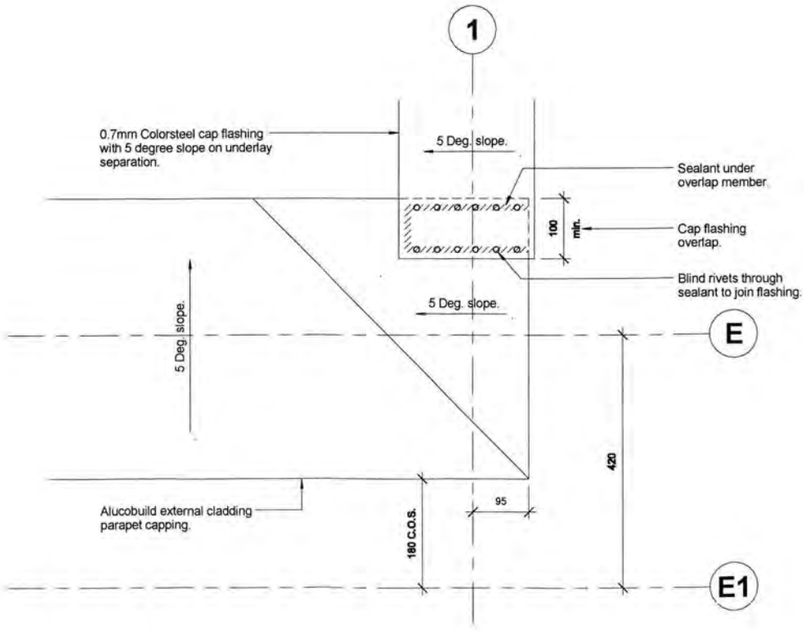
1 / A405 PLAN DETAIL 1
1 : 5



2 / A405 PLAN DETAIL 2
1 : 5



3 / A110 PLAN DETAIL 3
1 : 5



4 / A110 PLAN DETAIL 4
1 : 5

DO NOT SCALE

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REVISIONS

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PARAPET_ DETAILS - GRID E

SCALE @ A1= 1 : 5

North

DESIGN	VR
DRAWN	PC
VERIFIED	RA
APPROVED	SG

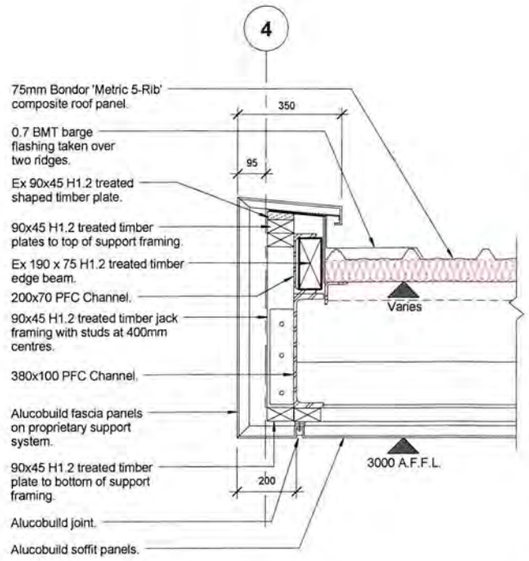
Project No.	Issue Date
4-M0633.01	2014.11.11

Revision 1

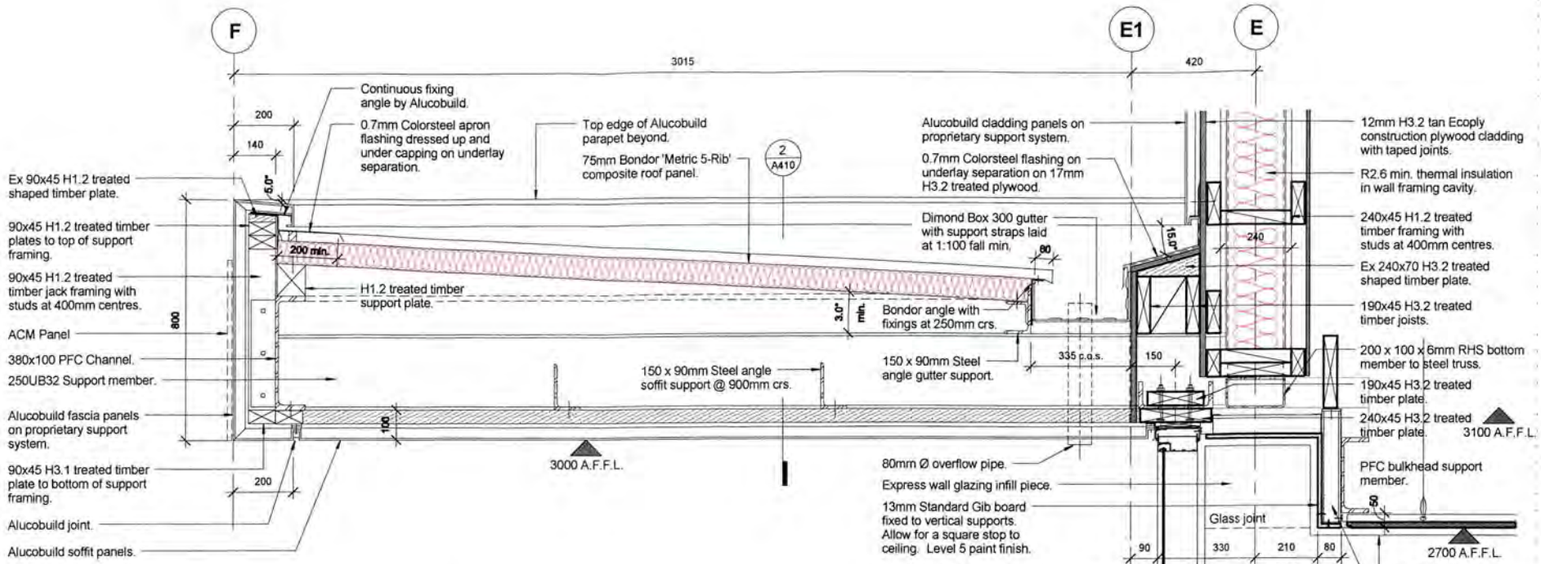
Sheet No. A406

ARCHITECTURAL

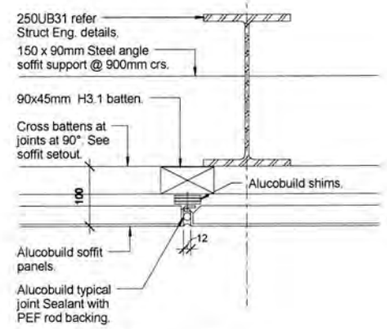
0 10mm 50 100



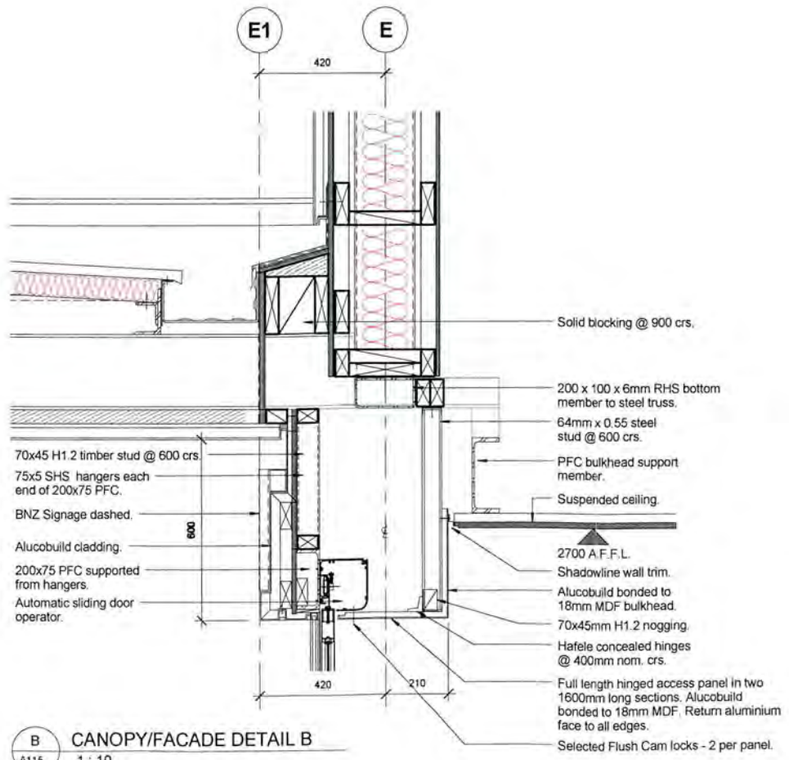
2 / A410 CANOPY SECTION B-B
1 : 10



1 / A115 CANOPY SECTION A-A
1 : 10



A / A412 CANOPY DETAIL A
1 : 5



B / A115 CANOPY/FACADE DETAIL B
1 : 10

0 10mm 50 100

DO NOT SCALE

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Sheet Name
CANOPY/FACADE DETAILS

SCALE @ A1= As indicated

North

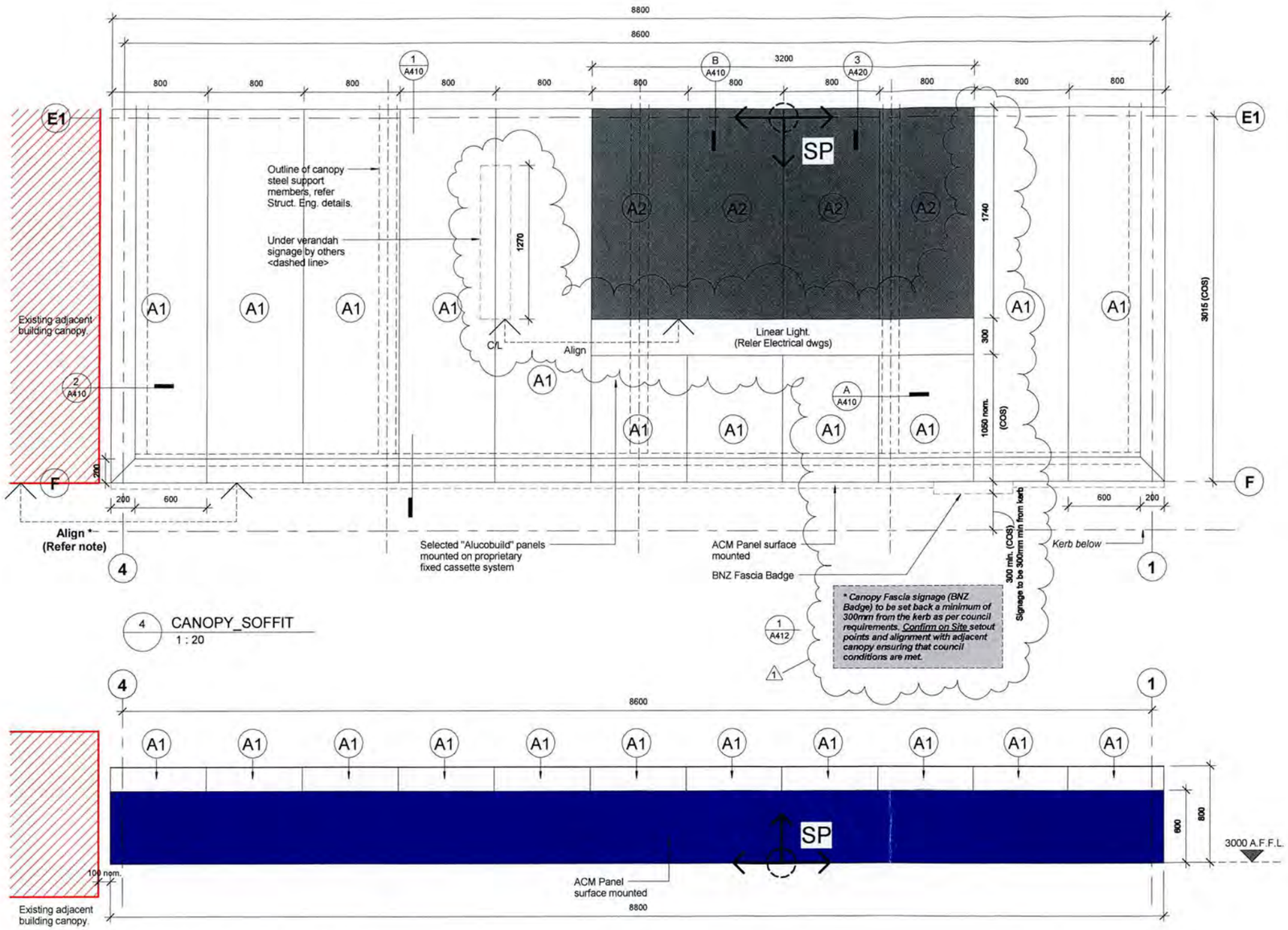
DESIGN	VR
DRAWN	PC
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision 1
Sheet No. A410

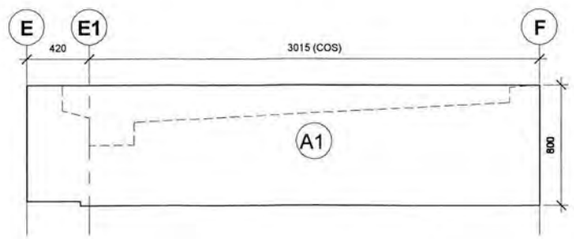
ARCHITECTURAL

Original sheet size A1 (841x594) Plot date: 11/11/2014 5:39:56 PM C:\Projects\BNZWA_Tender_2014_Central_auvhr0.rvt

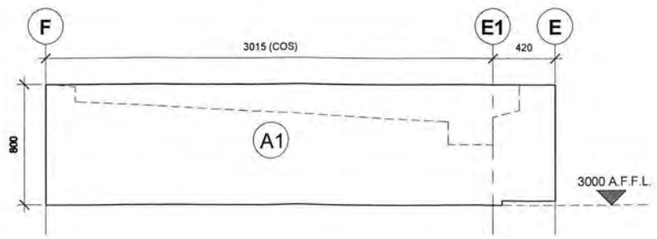


4 CANOPY_SOFFIT
1 : 20

1 A412 CANOPY_FRONT ELEVATION
1 : 20



2 CANOPY_SIDE (EAST) ELEVATION
1 : 20



3 CANOPY_SIDE (WEST) ELEVATION
1 : 20

CLADDING LEGEND

A1 **"Alucobuild" panels** mounted on proprietary fixed cassette system. Colour: **White**

A2 **"Alucobuild" panels** mounted on proprietary fixed cassette system. Colour: **Silver**

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
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Sheet Name
CANOPY_ PANEL DETAILS

SCALE @ A1= As indicated

North

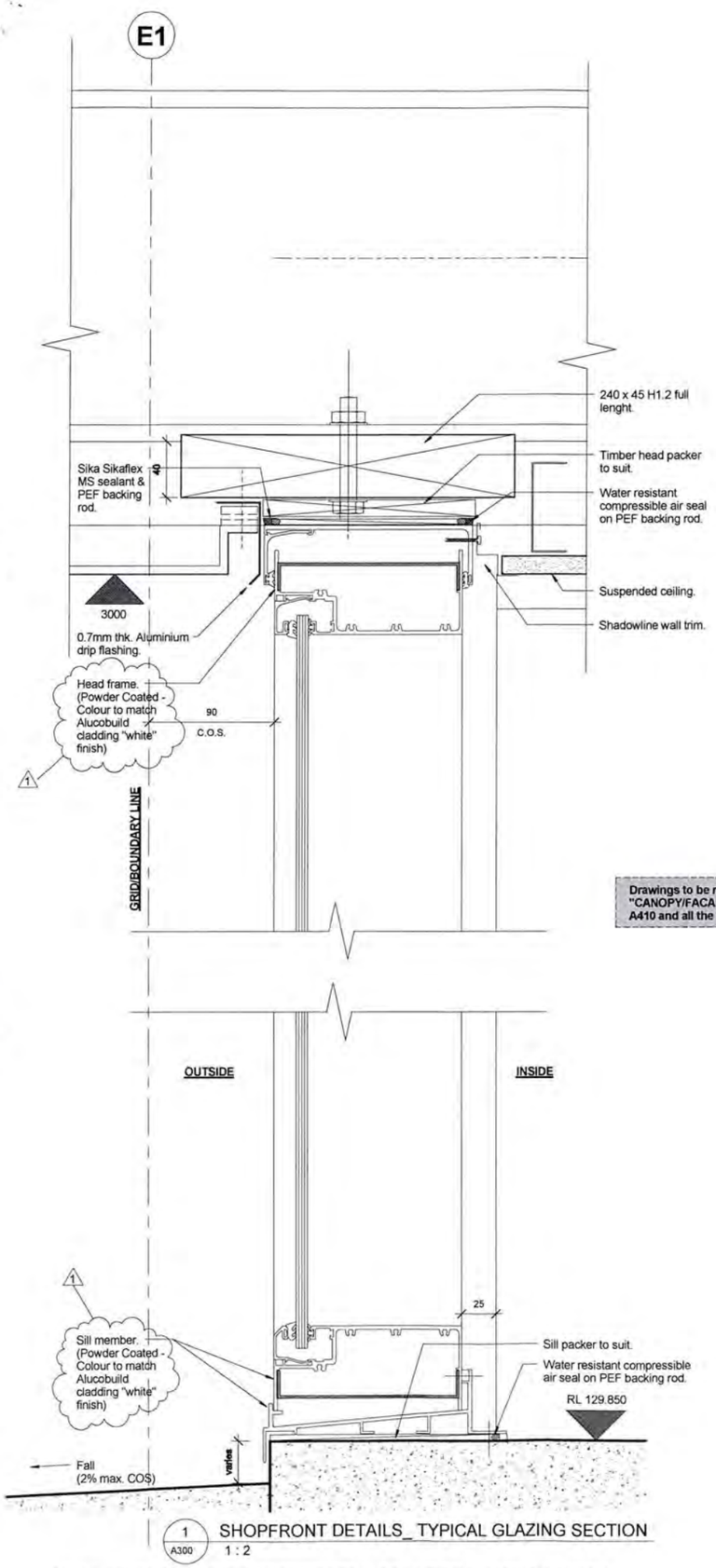
DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A412

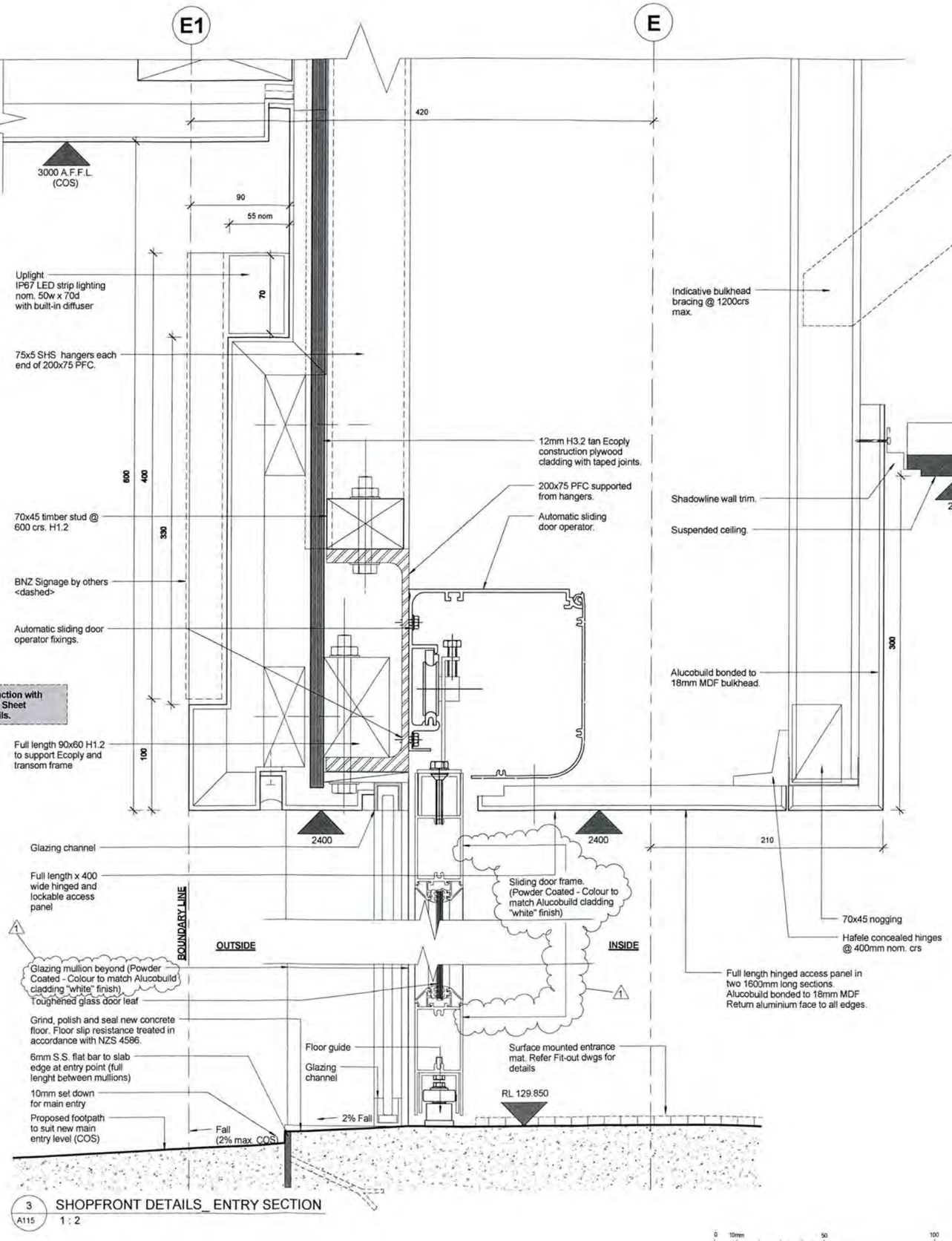
ARCHITECTURAL

0 10mm 50 100



1 A300 SHOPFRONT DETAILS_ TYPICAL GLAZING SECTION
1 : 2

Drawings to be read in conjunction with "CANOPY/FACADE DETAILS" Sheet A410 and all the relevant details.



3 A115 SHOPFRONT DETAILS_ ENTRY SECTION
1 : 2

0 10mm 50 100

DO NOT SCALE

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REVISIONS

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Sheet Name
SHOPFRONT DETAILS (PART 1)

SCALE @ A1= 1 : 2

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
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Revision	Sheet No.
1	A420

ARCHITECTURAL

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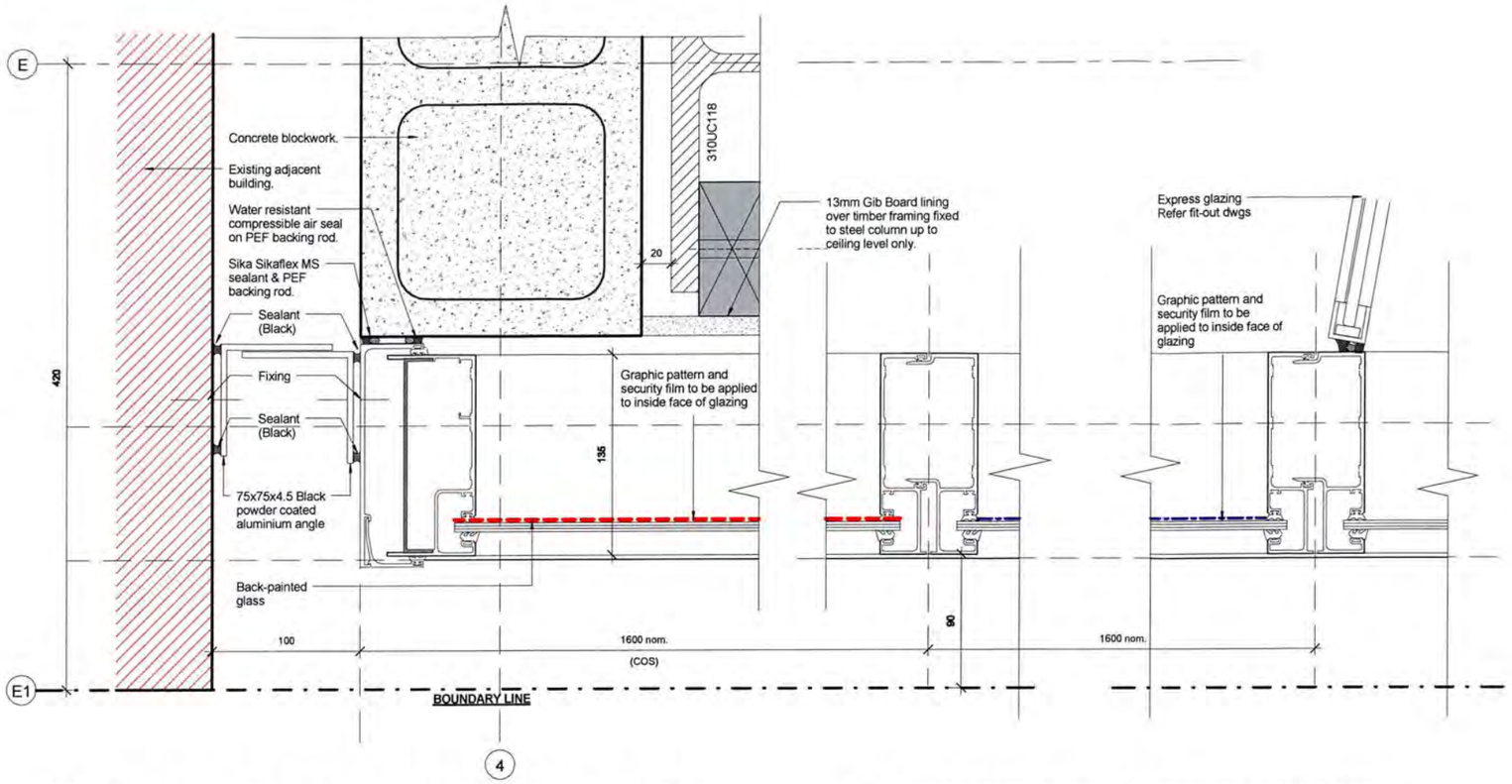
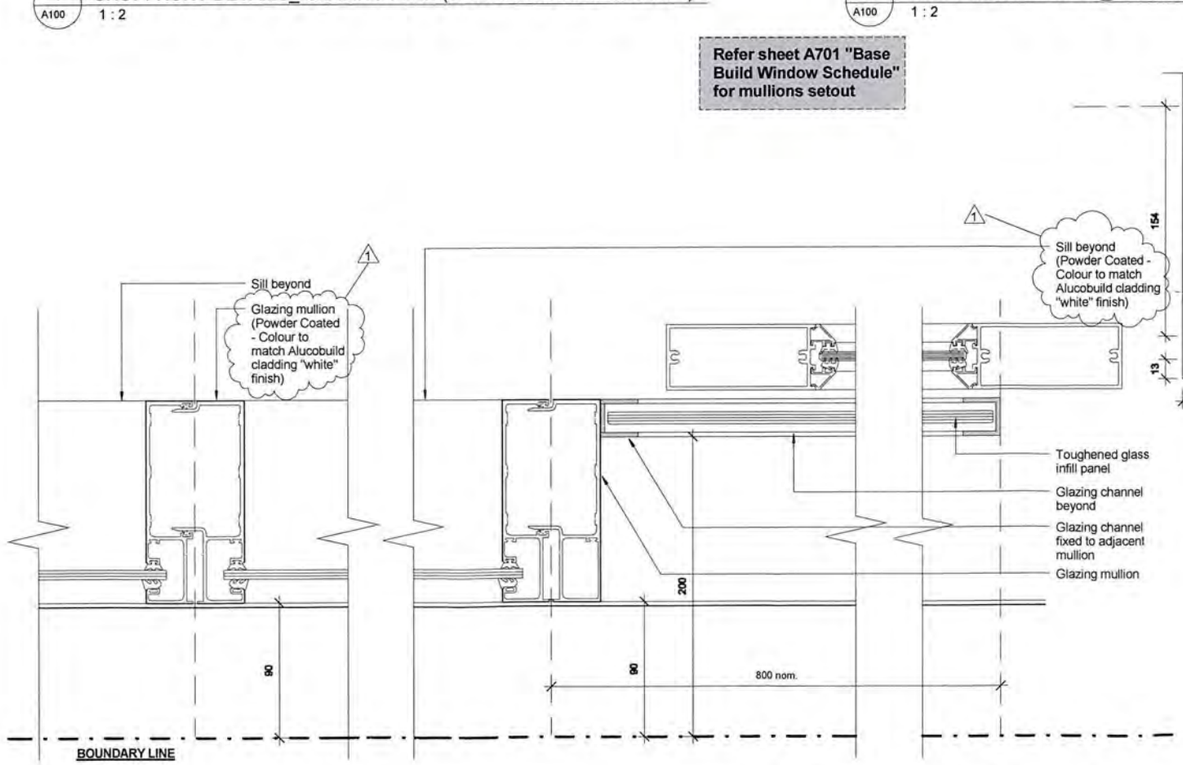


1 / A100 SHOPFRONT DETAILS_ GLAZING PLAN (CORNER MODULE - GRID 4)
1 : 2

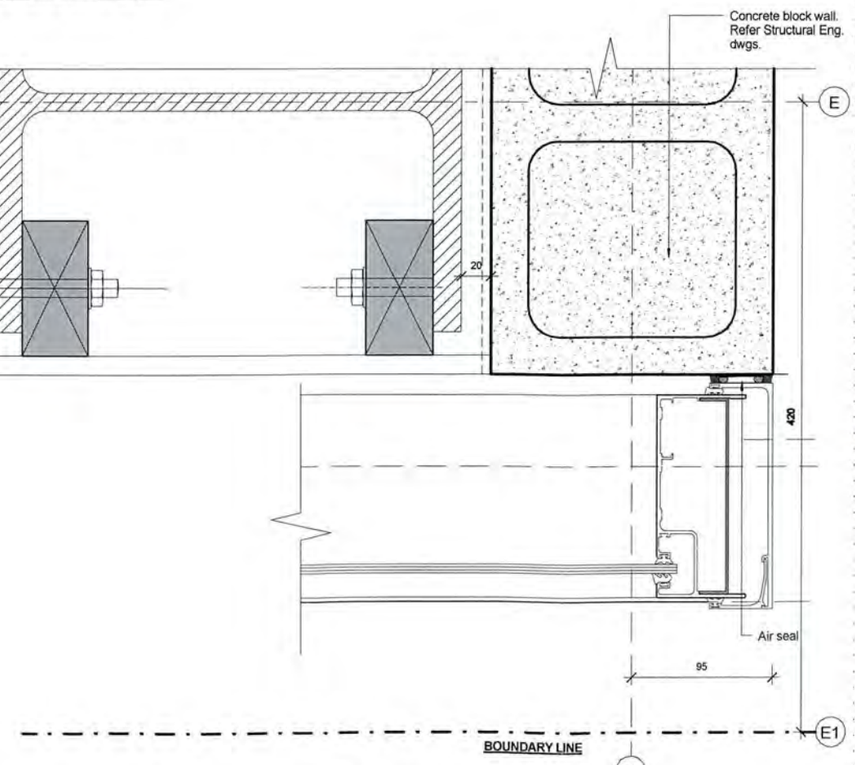
3 / A100 SHOPFRONT DETAILS_ GLAZING PLAN (ATM MODULE)
1 : 2

Refer sheet A701 "Base Build Window Schedule" for mullions setout



4 SHOPFRONT DETAILS_ GLAZING PLAN (TYPICAL MODULE)
1 : 2

5 SHOPFRONT DETAILS_ GLAZING PLAN (SLIDING DOOR)
1 : 2



6 SHOPFRONT DETAILS_ GLAZING PLAN (CORNER MODULE - GRID 1)
1 : 2

0 10mm 50 100

Original sheet size A1 (841x594) Plot date: 11/11/2014 5:39:59 PM C:\Projects\BNZWA_Tender_2014_Central_auvhr0.rvt

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Sheet Name
SHOPFRONT DETAILS (PART 2)

SCALE @ A1= 1 : 2

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A421

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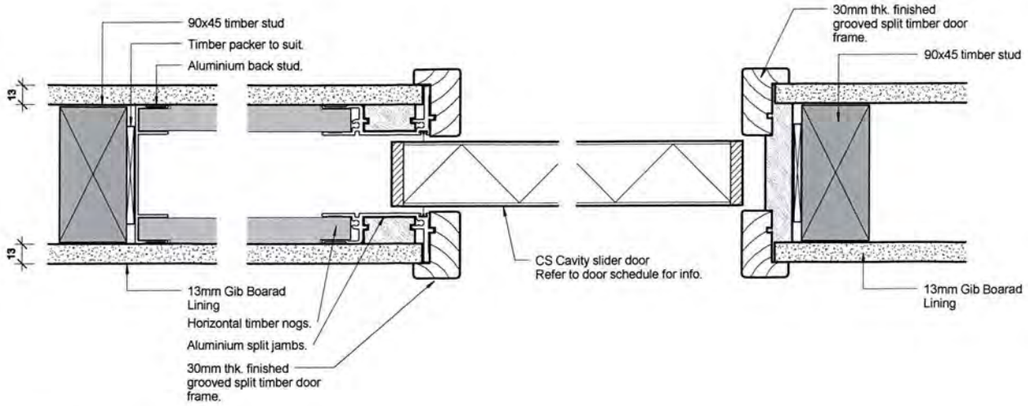
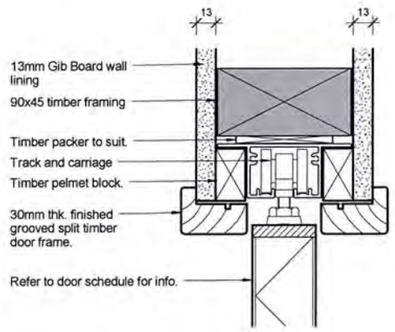
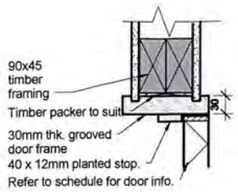


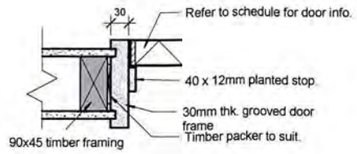
1 CAVITY SLIDER DOOR JAMB
1 : 2



2 CAVITY SLIDER HEAD
1 : 2



3 INTERIOR DOOR HEAD
1 : 5



4 INTERIOR DOOR JAMB
1 : 5

DO NOT SCALE

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REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
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Sheet Name
INTERNAL DOOR DETAILS

SCALE @ A1= As indicated

North

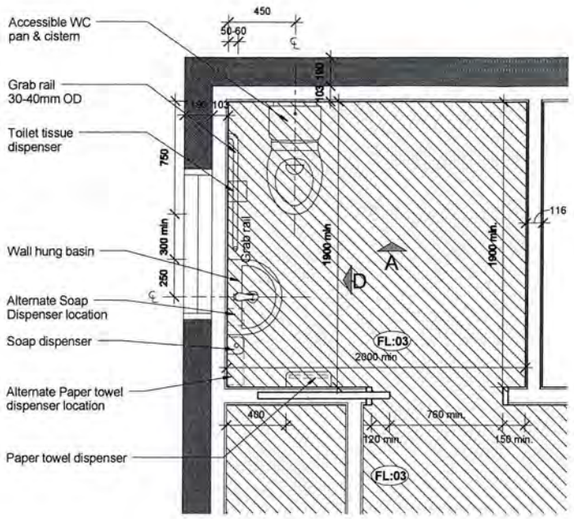
DESIGN	VR
DRAWN	CF
VERIFIED	RA
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A426

ARCHITECTURAL

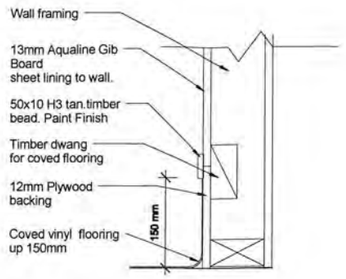
0 10mm 50 100

FLOOR FALLS
1:50 MIN.
1:40 MAX.



NOTE :
ROOM MINIMUM DIMENSIONS CLEAR BETWEEN FACE OF LININGS

1 ACCESSIBLE TOILET PLAN
1 : 20



4 / A500 SKIRTING DETAIL1
1 : 5

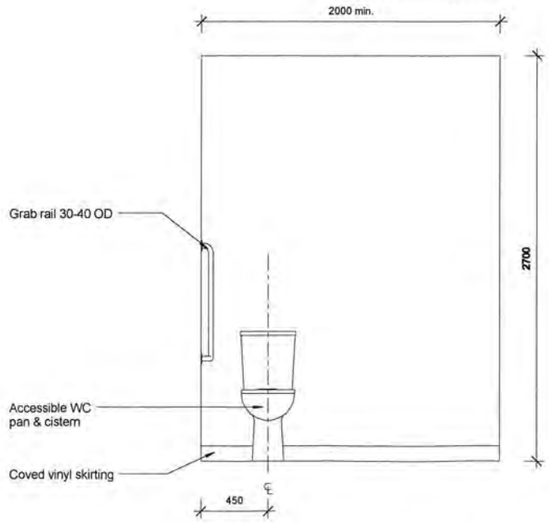
BASE BUILD FLOOR LEGEND

FL:03 Forbo Flooring Systems, Polyfloor 2000
Colour: 8150 - Shadow

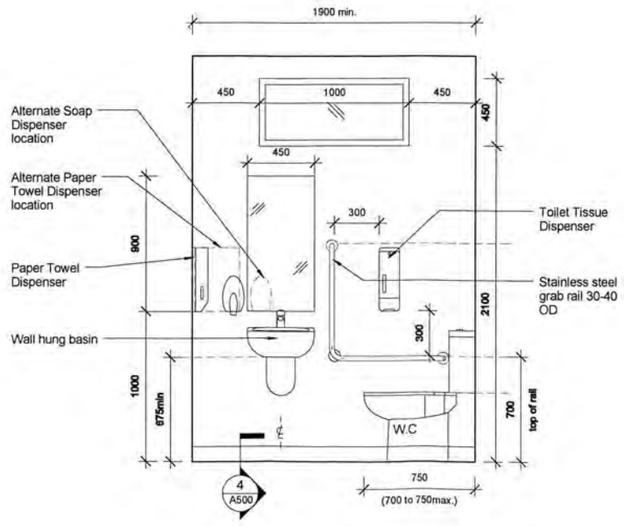
ACCESSIBLE W.C. FITTINGS

ACCESSIBLE TOILET PAN	CAROMA COSMO SOVEREIGN TOILET SUITE WITH AVALON COMMERCIAL SEAT - White
WALL BASIN	CAROMA CONCORDE WALL BASIN - White
BASIN MIXER	METHVEN MINIMALIST MMB BASIN MIXER (all pressure) CHROME FINISH
MIRROR	MIRROR WITH POLISHED EDGES FIXED TO WALL WITH DOUBLE SIDED ADHESIVE TAPE AND MASTIC
ACCESSIBLE TOILET GRAB RAIL	BRADLEY 005 90 degree 750x750mm PEENED FINISH
SEALANTS	SANITARY GRADE SEALANT (WHITE) BETWEEN BASIN AND WALL SURFACE. SANITARY GRADE SEALANT (WHITE) BETWEEN TOILET SUITE AND WALL SURFACE.

Note: Refer to NZS 4121:2001 Figure 31 - Toilet unit fittings - positioning of grab rail



2 ACCESSIBLE TOILET ELEV A
1 : 20



3 ACCESSIBLE TOILET ELEV D
1 : 20

DO NOT SCALE

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Sheet Name
TOILET DETAILS

SCALE @ A1= As indicated

North

DESIGN	VR
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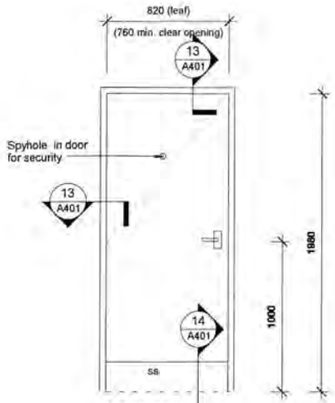
VERIFIED	RA
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A500

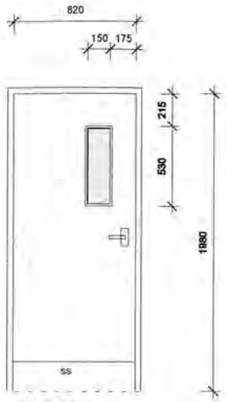
ARCHITECTURAL

0 10mm 50 100

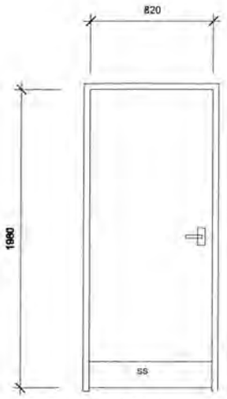


DOOR DB01

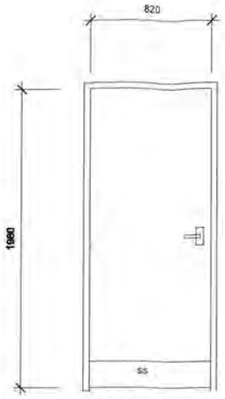
Proprietary Steel Face
Solid core door
Steel Frame
Powder Coat finish.
Refer to plan for swing direction



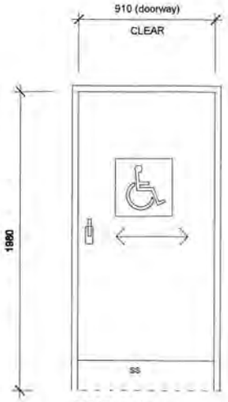
DOOR DB02
Toilet Lobby
Solid core door.
Timber frame
Paint finish.
Laminated glass VP with frosted vinyl film.
Refer to plan for swing direction



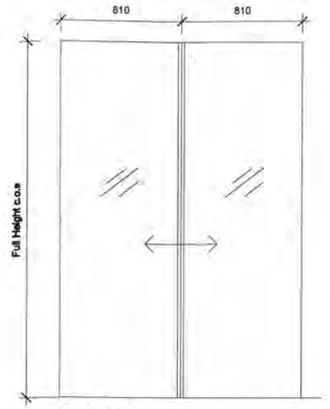
DOOR DB03
Cleaner Rm
Solid core door.
Aluminium frame
Paint finish.
Refer to plan for swing direction
25mm Undercut



DOOR DB04
WC
Solid core door
Aluminium frame
Paint finish.
Refer to plan for swing direction
25mm Undercut



DOOR DB05
Acc. WC
Accessible solid core door.
Aluminium frame
Paint finish.
Refer to plan for handing
Signage as per NZS 4121:2001



DOOR DB06

Automatic sliding door
Laminated glass
Manifestation

1 DOOR ELEVATIONS
1 : 20

Door Schedule

Door No.	Type	Location	Security Type	Vision Panel	Frame Material	Frame Finish	Lock / Latch	Door Furniture	Door Closer	Door Stop	Kickplate	Comments
DB01	Solid Core Door no VP	Rear Entrance	Security	No	Steel	Powdercoated Steel	Security Door - Card Reader - Electric Mortice Lock, SCP with key override cylinder / transfer hinge (by Security Contractor)	Dalco 6000-52 Renoir 52, SCP & 6008 Cylinder Escutcheon	LCN 1461P Reg Alum Door Closer	Dalco 12801 SCP Floor Mounted Door Stop	Kickplate 150mm high, SS, glue fix	Refer to door notes
DB02	860mm	Toilet Lobby	Security	Yes	Aluminium	Natural Anodised Aluminium	Security Door - Card Reader - Electric Mortice Lock, SCP with key override cylinder / transfer hinge (by Security Contractor)	Dalco 6000-52 Renoir 52, SCP & 6008 Cylinder Escutcheon.	LCN 1461 Reg Alum	Dalco 12801 SCP Floor Mounted Door Stop	Kickplate 150mm high, SS, glue fix	Refer to door notes
DB03	710mm	Cleaners Cupboard	Security	No	Aluminium	Natural Anodised Aluminium	Security Door - Card Reader - Electric Mortice Lock, SCP with key override cylinder / transfer hinge (by Security Contractor)	Dalco 6000-52 Renoir 52, SCP & 6008 Cylinder Escutcheon.	LCN 1461 Reg Alum	Dalco 12801 SCP Floor Mounted Door Stop	Kickplate 150mm high, SS, glue fix	Refer to door notes
DB04	710mm	WC	Privacy Lock	No	Aluminium	Natural Anodised Aluminium			LCN 1461 Reg Alum	Dalco 12801 SCP Floor Mounted Door Stop	Kickplate 150mm high, SS, glue fix	Refer to door notes
DB05	910 x 1980	Acc. WC	Privacy Lock	No	Aluminium	Natural Anodised Aluminium					Kickplate 150mm high, SS, glue fix	Refer to door notes
DB06	Dbl Sliding Door_Frameless(OP)	Main Entrance	Security	No	Aluminium	Powder Coated - White						Refer to door notes

DOOR NOTES

- Contractor shall verify all dimensions on site prior to fabrication. All dimensions represent leaf sizes unless otherwise specified.

- Refer to specification for door thickness with 6mm clashing strips to all 2 exposed sides unless stated otherwise. Paint quality finished with Resene Paint Systems.

- All furniture shall be finished Satin Chrome (SC).

- Door handles to be mounted at 1000mm above floor level to center of handles unless otherwise specified.

- CS cavity sliders complete with components and installation as per manufacturer's specifications. Supply under guarantee and with owners/ maintenance manual.

- All glazing shall be in accordance with AS/NZS 2208: 'Safety Glazing Materials for use in Building.' (Human Impact Considerations) and NZS 4223: Code of Practice for Glazing in Building.

- Glazed doors to have manifestation compliant with codes; All manifestation is supplied by Signage Contractor; refer to Marketing & Signage Part of the Design Guidelines for clarification.

- Door vision panels to be 6.38 laminated glass. For fire doors use fire rated glass. For doors from Shop Floor to BoH Door Vision Panel Graphic is to be applied for privacy and security purposes.

- All keyed locks are to be keyed to suit Facility Managers requirements. Allow for master keying.

- Refer to Fire Report for additional information regarding hardware.

- Fix accessible door grab rail to inside face of specified doors. Type: 'Bradley' 001 Straight Peened Grab Rail, 600mm long S.S.

- Locks to security doors are to be ordered and fitted by the BNZ nominated security contractor. Main Contractor to provide rebates / holes for Security Locks in doors and frames. **Main Contractor shall ensure that under no circumstances drilling into a door occurs that has a security lock installed. The lock MUST be removed prior to any drilling. Ideally this would be coordinated with the security contractor onsite.**

- Door furniture and all other door hardware (hardware, handles & door closer; any keys are to be keyed to the banks master key system) to be ordered and fitted by main Contractor. Main Contractor to provide rebates / holes (including for Security Locks) in doors and frames; Main Contractor to mount Door Closer on hinge side of Door

FRAMED GLASS AUTO-DOORS

The framed automatic door shall be an ULTRASLIDE S1600 automatic sliding door operator by SELF OPENING DOORS LTD. The operator on new as well as existing auto doors is to be compliant with NZS/AS 4085, standard for automatic door operators, be EMC compliant and conform to the requirements of New Zealand building code.

Mechanical
The operator shall be driven via a toothed timing belt from 40 volt DC permanent magnet, variable speed, continuously rated motor. The drive system shall be nylon wheel with encapsulated bearings on a hard anodised aluminium track ensuring a smooth, quite operation. Adjustable anti rise wheels shall prevent the doors from de railing. The operator shall be supplied in an extruded aluminium cowl 185mm high x 135mm deep.

Locking
Locking shall be by way of an electromagnetic motor lock factory fitted to the drive shaft of the motor. This ensures no alignment problems associated with mechanical type locks.

In addition to the electromagnetic motor lock a manual lock is to be fitted: Lockwood L591/1 Mortice Deadlock

Controls
The door functions shall be controlled by a four position key mode switch. The following modes shall be selectable:

Auto
For normal use. The door operates in fully automatic mode for two way traffic.

Open
The door will remain fully open.

Lock
The door closes and the motor lock engages. It ignores all inputs except emergency exit, security and fire open signals.

Exit
The door closes and the motor lock engages. The door will open for traffic leaving the building only.

Activation
- By Eagle 6 Microwave sensors, one on either side of the door.
- By dual safety beams fitted at 100mm and 600mm above finished floor level.
- By backlit emergency egress button.
- By key entry switch.

Press to Exit Button
Button to be located within 2m of door.

First Person Entry
Contractor to supply and install a Key control switch keyed to the BNZ restricted / security master key system, complete with fifteen security keys. Key control switch to be installed on the portal 1200mm above the pavement to admit the first staff member. On activation doors will cycle open then close and re-lock.

For new locations the lock is to initially have a 'construction key barrel' fitted for use by the contractor, and then make provision for SLS to change over barrels at the time of handover.
Nominated subcontractor for the supply and installation of the key switch is SLS Security, PO Box 100-213, North Shore Mail Center. Contact David Morrissey, phone (09) 486 8080 or an SLS nominated agent.

For refurbishment sites if the front doors are currently not on a MKS then these will also be upgraded prior to go live day.

Failsafe and Battery
To be a fully monitored UPS system monitoring both battery and door operation. In case of power failure in auto mode the battery shall continue to provide full operation of the door for 200 complete open and close cycles. When the battery is too low to run the operator, the doors will failsafe open. In case of power failure in lock mode the battery shall retain full locking for 8 hours.

Security Control
Provide extra security control in the form of the Ultra-slide S1600 advanced security board. This board will be included factory fitted in the unit. Connection to security will be via the Security Contractor.

Fire Alarm
A clean contact in the Ultra-slide S1600 advanced security board will be provided for in the operator for the fire alarm contractor to wire into.

NOTE: Refer to Fire Report for the existing & new doors, upgrades and compliance issues.

APPLIES TO NEW & EXISTING DOORS BY MAIN CONTRACTOR

Card Readers, EDR and REX Positions

The Emergency door release pad (EDR) is to be positioned 1000mm affl to center of EDR.

If a card reader is required it is to be positioned above the EDR, 1200mm affl to center of Card reader.

The emergency door release pad is to be positioned 1000mm affl to center of pad.

The touch to exit pad is to be located above the emergency door release pad at 1200mm affl to center of pad.

The auto door key control switch shall be positioned between 1200 – 1400mm affl in the proximity of the door. Exact location and height will be dependant on the design of the internal shop frontage. main Contractor to liaise with Opus Architect and RCP Project Manager.

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

NOTES

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Sheet Name
BASE BUILD_ DOOR SCHEDULE

SCALE @ A1= As indicated

North

DESIGN	Designer
DRAWN	Author
VERIFIED	Checker
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A700

ARCHITECTURAL

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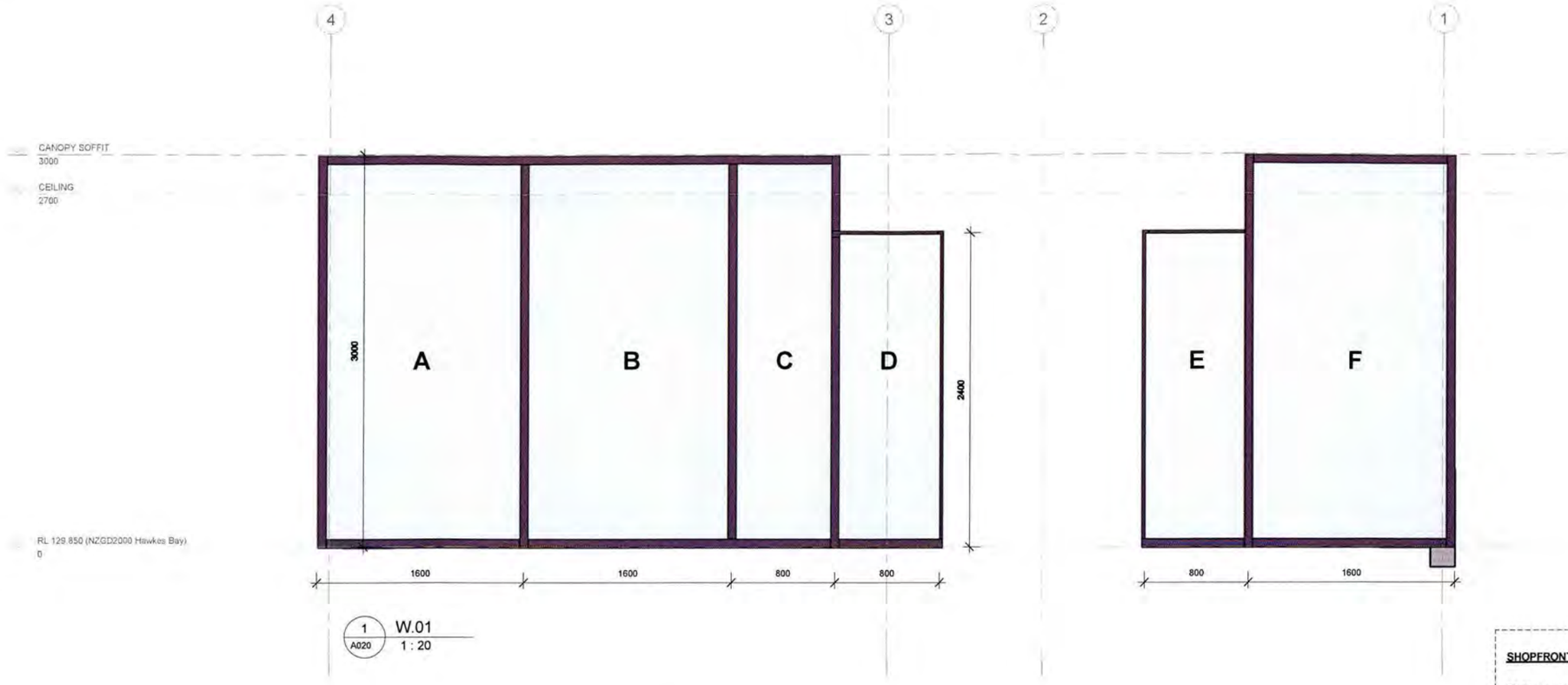

1 / A020 W.01
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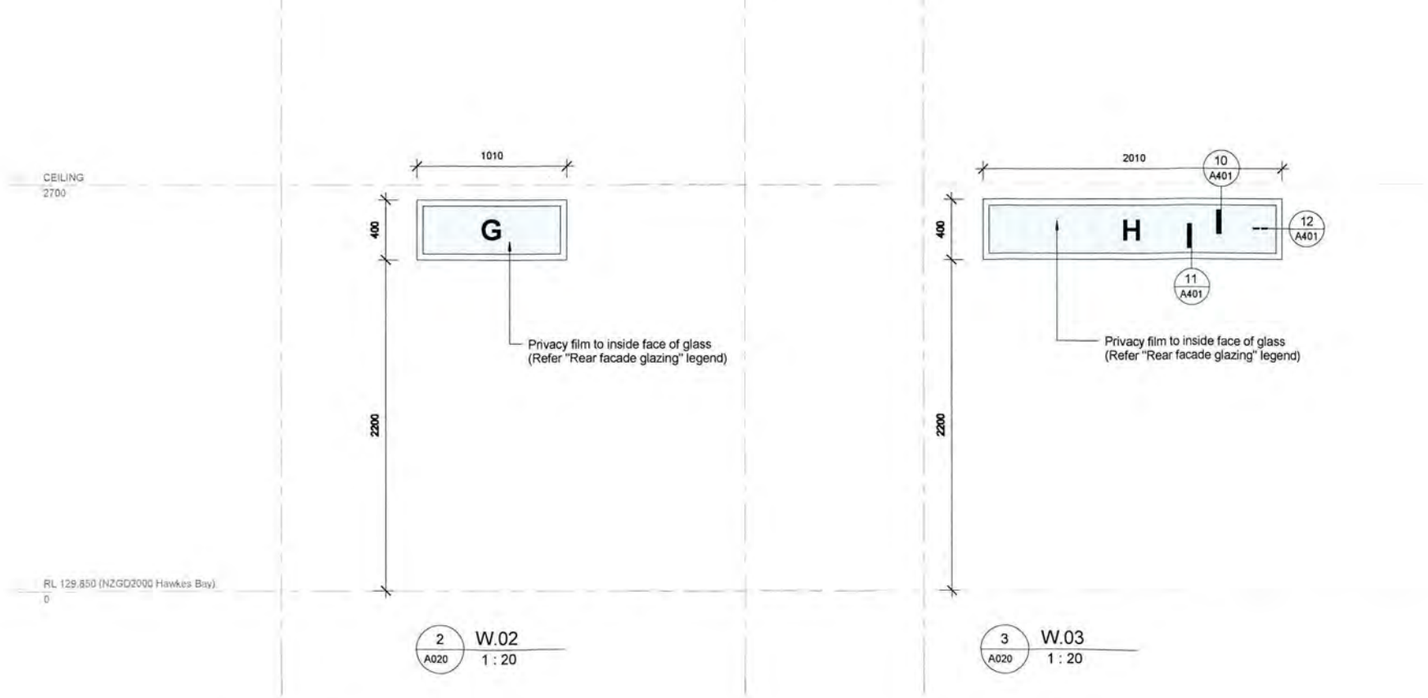

2 / A020 W.02
1 : 20

3 / A020 W.03
1 : 20

SHOPFRONT GLAZING LEGEND

R0.15 min. Shopfront single glazing.
Graphic pattern and security film to be applied to inside face of glazing. Refer BNZ Guidelines for details.
A & B

R0.15 min. Shopfront single glazing
C, D, E & F

REAR FACADE GLAZING LEGEND

R0.15 min. Single glaze with privacy film.
G & H

Privacy film to be applied to inside face of glass on rear facade windows **(W.02 & W.03)**

Privacy film: **Hexis Etch S5DEPM**

WINDOW NOTES

1. ALL EXTERIOR WINDOW AND DOOR PROFILES SHALL BE
POLYESTER POWDER COATED ALUMINIUM

2. ALL GLAZING TO COMPLY WITH NZS 4223.

3. DIMENSIONS GIVEN FOR OVERALL FRAME SIZE ARE ROUGH
OPENING OR TRIM DIMENSIONS
CHECK ALL DIMENSIONS & MEASURE ON SITE PRIOR TO FABRICATION

4. WINDOWS TO BE COMMERCIAL GRADE ALUMINIUM WINDOWS.
DOORS TO BE COMMERCIAL GRADE GLAZED ALUMINIUM DOORS
ALL DOORS SHALL HAVE A MINIMUM HEIGHT OF 1980mm

5. GENERALLY GLASS UNLESS NOTED SHALL BE CLEAR TOUGHENED
GRADE A SAFETY GLASS OR ANNEALED.
THICKNESS TO NZS 4223.

6. ALL HIGHLIGHT OPENING SASHES OVER 2100mm FROM FLOOR LEVEL
SHALL BE OPERATED BY MANUAL WINDOW CONTROL GEAR.

0 10mm 50 100

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
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FOR CONSTRUCTION

NOTES

1. Refer to Floor Plan for door handing and locations
2. Dimensions given for overall frame size are clear openings unless otherwise state.
3. To be read in conjunction with the hardware schedule and specifications for all door seals, kick plates, locking mechanisms and all other hardware
4. All external glazing to be double glazed Grade A laminated safety glass
5. All glass to comply with NZS 4223 and AS/NZS 4666:2000
6. All dimensions given must be checked on site prior to fabrication
7. To be read in conjunction with Fire Report
8. All fire rated and smoke stop doors to comply with AS/NZS 1905.1
9. Refer to the specification for handle height
10. Manifestations to be surface applied opaque film setout to be centred on line of door handle

ALL DOORS ON ACCESSIBLE ROUTES SHALL HAVE:-

1. 760mm minimum clear opening width for single hinged doors or sliding doors
2. 760mm minimum clear opening for at least one leaf of double hinged doors or double sliding doors
3. Lever type door handle with return toward doors
4. Door handle at 1000mm above the floor
5. 20mm maximum threshold
6. Colour contrast with their surroundings
7. Forces required to open non-fire doors shall be 38N for exterior hinged and exterior sliding doors and 22N for interior hinged and interior sliding doors
8. Doors with full height glazing shall have manifestation markings 700 - 1000mm above the floor, with manifestations 20mm high minimum

ALL WINDOWS ON ACCESSIBLE ROUTES SHALL HAVE:-

1. Locking and opening controls to be located 900 - 1200mm above the floor

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Sheet Name
BASE BUILD_ WINDOW SCHEDULE

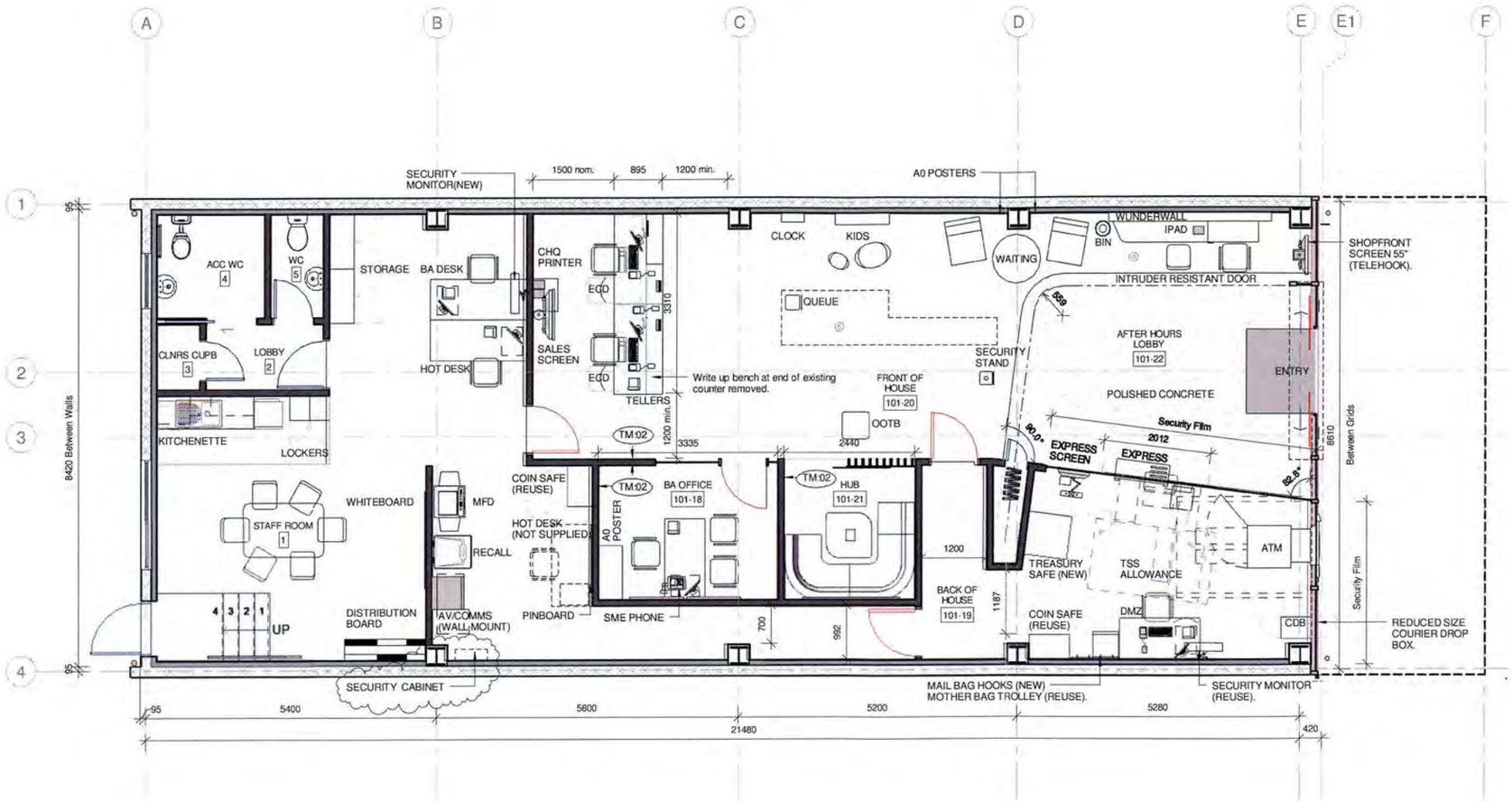
SCALE @ A1= As indicated

North

DESIGN	XXX
DRAWN	XXX
VERIFIED	XXX
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A701

ARCHITECTURAL



1 / A200 PROPOSED PLAN
1 : 50

FIT OUT LEGEND

- -Strapping to precast walls, insulated and lined.
- -92mm Steel stud internal partitions with13mm GIB plasterboard or MDF lining.
- -Potters full height internal glazing system.
- TM:02 -92mm Steel stud internal partitions with12mm MDF wall lining and TM:02 Timber Veneer.

STORE INFORMATION

GENERAL

STAFF No: 4.2 FTE's
WC's Required: 2 including 1x Accessible WC

SHOP KEY

SHOP FRONT
ATM: New
Courier drop box: New
Shopfront Screen: 55" Portrait

ELECTRICAL
COMMS Cabinet: New
PABX: New
Security Panel: Reuse
Distribution Board: New

PLUMBING
Accessible WC: New
Cleaner's sink: New
Kitchenette: New

CEILING
New Ceiling grid and tile
All services designed by Engineers to suit

FLOORING
FOH & BOH: Carpet tiles
After Hour Lobby: Polished Concrete
Kitchen & Accessible WC: Vinyl

SAFES
Coin Safes x2: 1 Existing to be reused x 1 New
Treasury Safe: New

FURNITURE
Items to be reused indicated on Sheet A605 - Fit-out_Furniture & Joinery Schedule.

REVISIONS

A	Preliminary Issue	2014.10.07
B	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

NOTES

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Sheet Name
FIT-OUT_ GENERAL LAYOUT PLAN

SCALE @ A1= 1 : 50

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A105

ARCHITECTURAL

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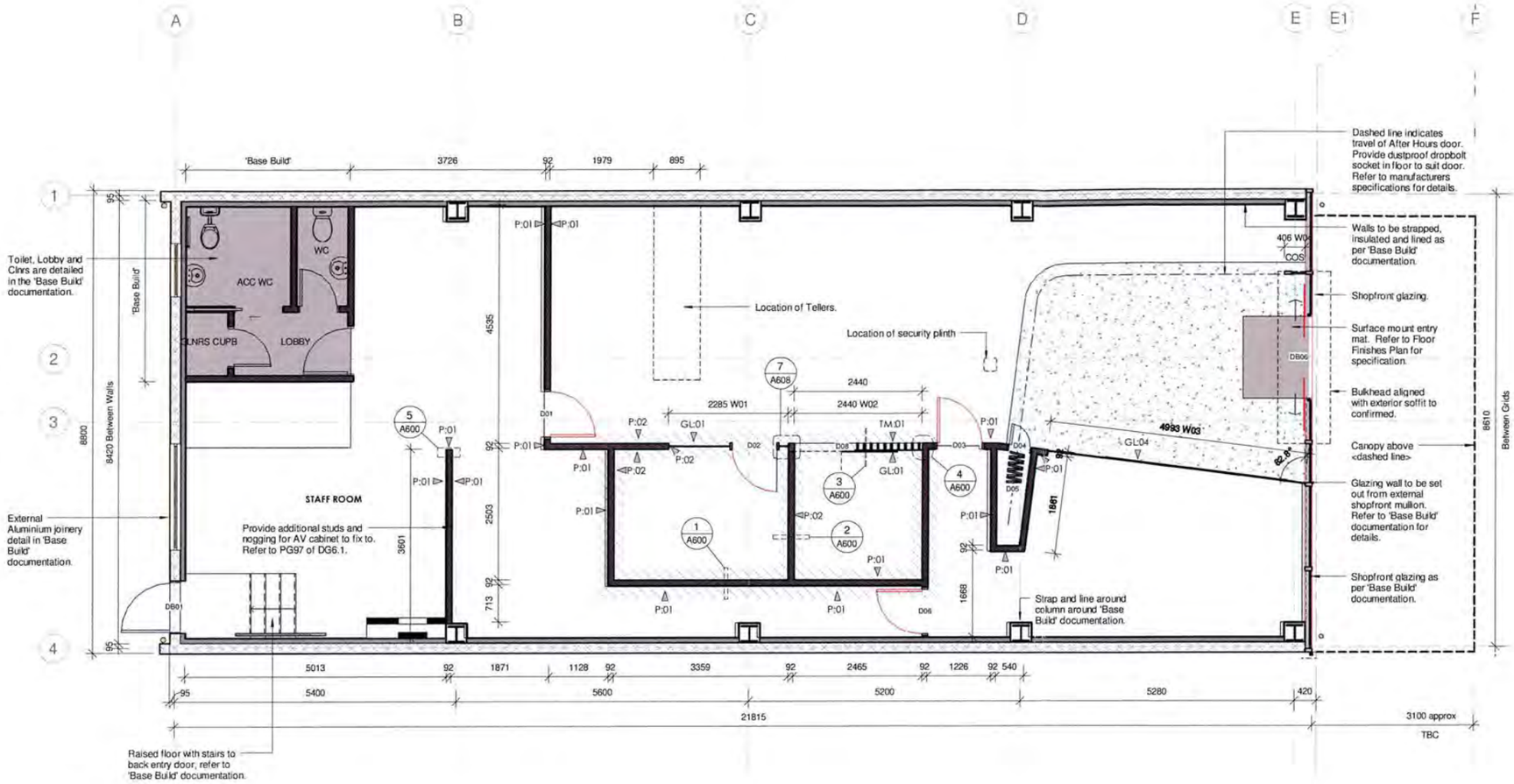
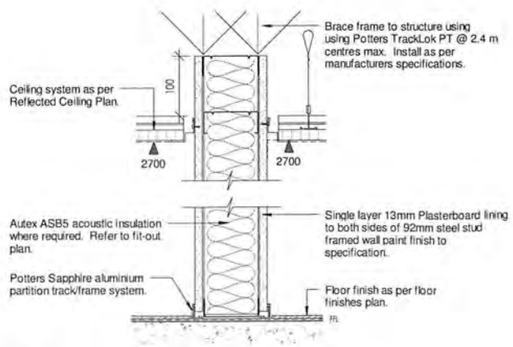
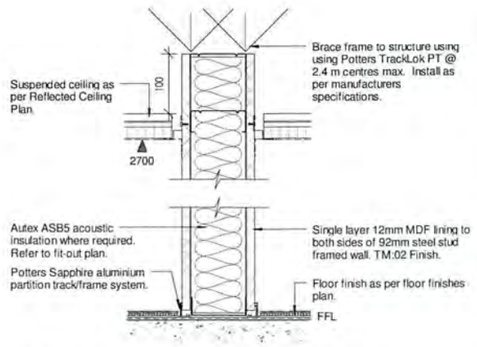


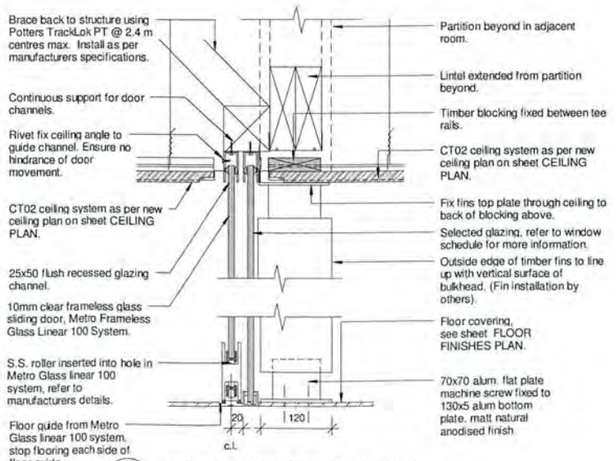
6 / A200 FITOUT PLAN
1 : 50



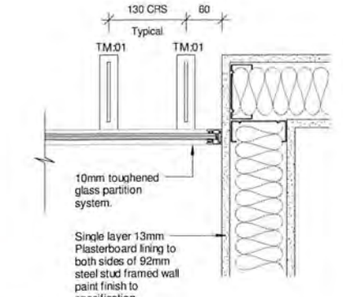
1 / A600 P01 SECTION (Through Ceiling)
1 : 5



2 / A600 P02 SECTION (MDF Through Ceiling)
1 : 5



3 / A600 HUB CEILING AND FIN DETAIL
1 : 5



4 / A600 HUB FIN DETAIL
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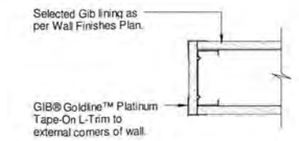

5 / A600 PARTITION - EXTERNAL END
1 : 5

0 10mm 50 100

FIT OUT LEGEND

- Strapping to precast walls, insulated and lined. Refer to 'Base Build' Documentation for details.
- P:01 — -92mm Steel stud internal partitions installed in accordance with manufacturers specifications. -13mm GIB plasterboard. Provide Level 4 plaster finish to all FOH areas and Level 4 to all BOH areas. Paint as per Wall Finishes Plans. Refer to partition details.
- P:02 — -92mm Steel stud internal partitions installed in accordance with manufacturers specifications. -12mm MDF wall lining. Refer to Wall Finishes and partition details for specification.
- G:01 — -Potters internal glazing system. Refer to details for specification.
- GL:04 — - Full height Potters Glazing system with 25mm glazing channels as detailed. Refer to details for construction. - Glazing to be backlit using LED Strip lighting along perimeter.
- TM:01 — - Solid Timber Fins. Floor and ceiling mounted.
- - Autex ASB5 quietstuff insulation in wall cavity as per manufacturers specifications.

GENERAL NOTES

- Do not scale off these drawings
- Contractor to verify all dimensions on site before commencing any construction or fabrication.
- All Dimensions shown are to the stud face or face of masonry.
- Read all architectural documentation & specifications in conjunction with all other consultants documentation & specifications.
- Use full height walls for sound insulation if ceiling void is greater than 1000mm (baffle block can only be used where the void is a maximum of 1000mm)
- Provide nogging for fixing of Joinery Fittings & Fixtures; Main Contractor to liaise with Cabinet Maker & Suppliers; refer to BNZ Store Design Guidelines for further information
- All Power, Data & Aerial outlets to be mounted flush with wall.

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

NOTES

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Sheet Name
FIT-OUT_ FLOOR PLAN

SCALE @ A1 = As indicated

North

DESIGN	BB
DRAWN	BB DP
VERIFIED	AM
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A600

ARCHITECTURAL

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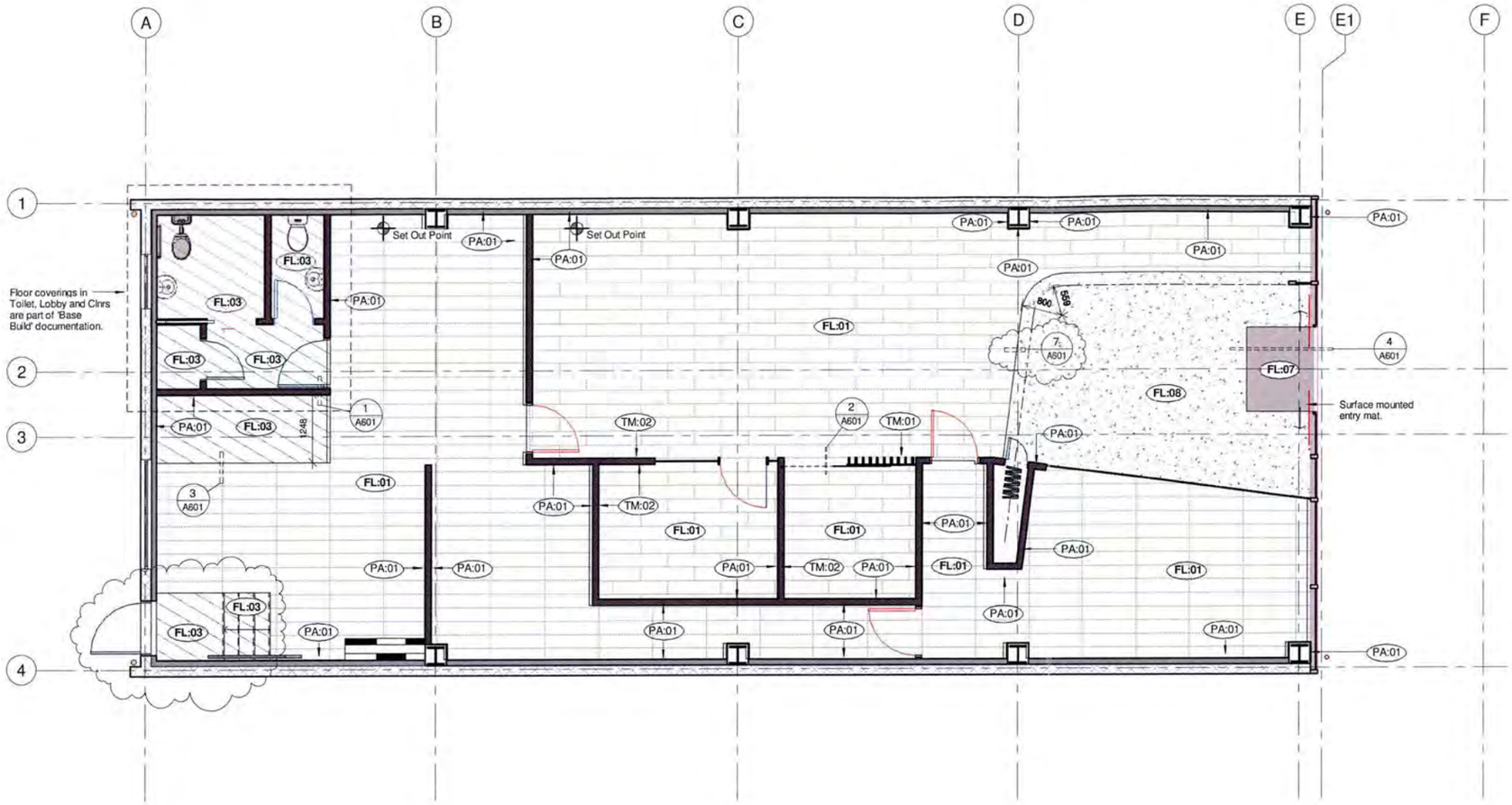
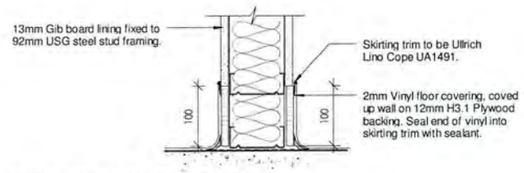
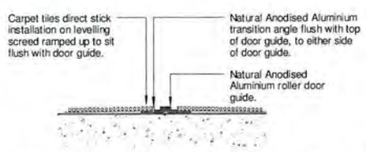


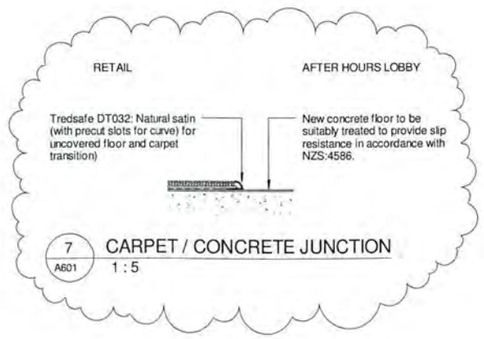
6 A200 FLOOR AND WALL FINISHES PLAN
1 : 50



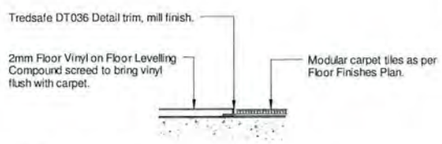
1 A601 VINYL SKIRTING DETAIL
1 : 5



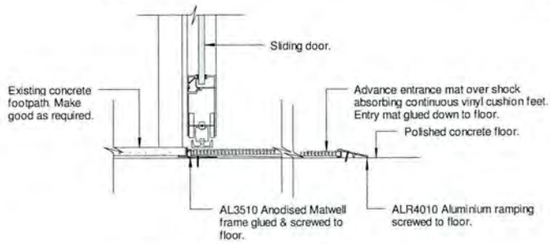
2 A601 HUB FRAMELESS GLASS SLIDER
1 : 5



7 A601 CARPET / CONCRETE JUNCTION
1 : 5



3 A601 CARPET / VINYL JUNCTION
1 : 5



4 A601 ENTRY THRESHOLD / MATWELL DETAIL
1 : 5

RETAIL - FLOOR FINISHES LEGEND

- FL:01 Carpet Tiles - Interface NZ, Assorted *Refer to sheet 'Carpet Tile Layout' for clarification on layout, range and colour.*
- FL:03 Forbo Flooring Systems, Polyfloor 2000 Colour: 8150 - Shadow
- FL:07 Advance Flooring, Entry Mat Range: Coralbrush Active Colour: Black, Code: CBA5830
- FL:08 Grind, Polish and seal new concrete floor. Floor slip resistance treated in accordance with NZS 4586. Refer to specifications for details.

RETAIL - FLOOR FINISHES NOTES

- Provide floor leveling compound as necessary prior to laying flooring.
- If rendering between surfaces is required ensure render is gradual over 1-1.5m.
- All floor coverings are to continue under all floor units to walls behind.
- Contractor to allow for installation and finish as per manufacturers instructions and installation methodology.
- Contractor to confirm flooring quantities and allow for wastage.
- Contractor to purchase flooring products, except for carpet tiles (FL:01) supply by Davis Langdon.
- Contractor to supply client with the maintenance schedule in conjunction with manufacturer.
- All flooring to be protected with plastic sheeting prior to building any partitions.
- All dimensions to be confirmed on site prior to layout.

RETAIL - WALL FINISHES LEGEND

- PA:01 Resene, Karen Walker Colour: Wan White Code: N93-005-105 WALLS - Waterborne Enamel. Spacecoat Low Sheen Finish DOORS - Waterbourne Enamel. Lustacryl Semi gloss. SFI = 0; SDI = 3
- TM:01 Solid Timber batten, Victorian Ash with PA:03 Aquaclear waterborne urethane varnish. Satin finish.
- TM:02 Victorian Ash Timber Veneer, quarter cut with PA:03 Aquaclear waterborne urethane varnish. Satin finish.

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

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Sheet Name
FIT-OUT_ FLOOR AND WALL FINISHES PLAN

SCALE @ A1= As indicated

North

DESIGN	BB
DRAWN	BB DP
VERIFIED	AM
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A601
ARCHITECTURAL

0 10mm 50 100

Original sheet size A1 (841x594) Plot date: 11/11/2014 6:03:02 p.m. C:\Projects\BNZWA_Tender_2014_Central_aubbb0(Recovery).rvt

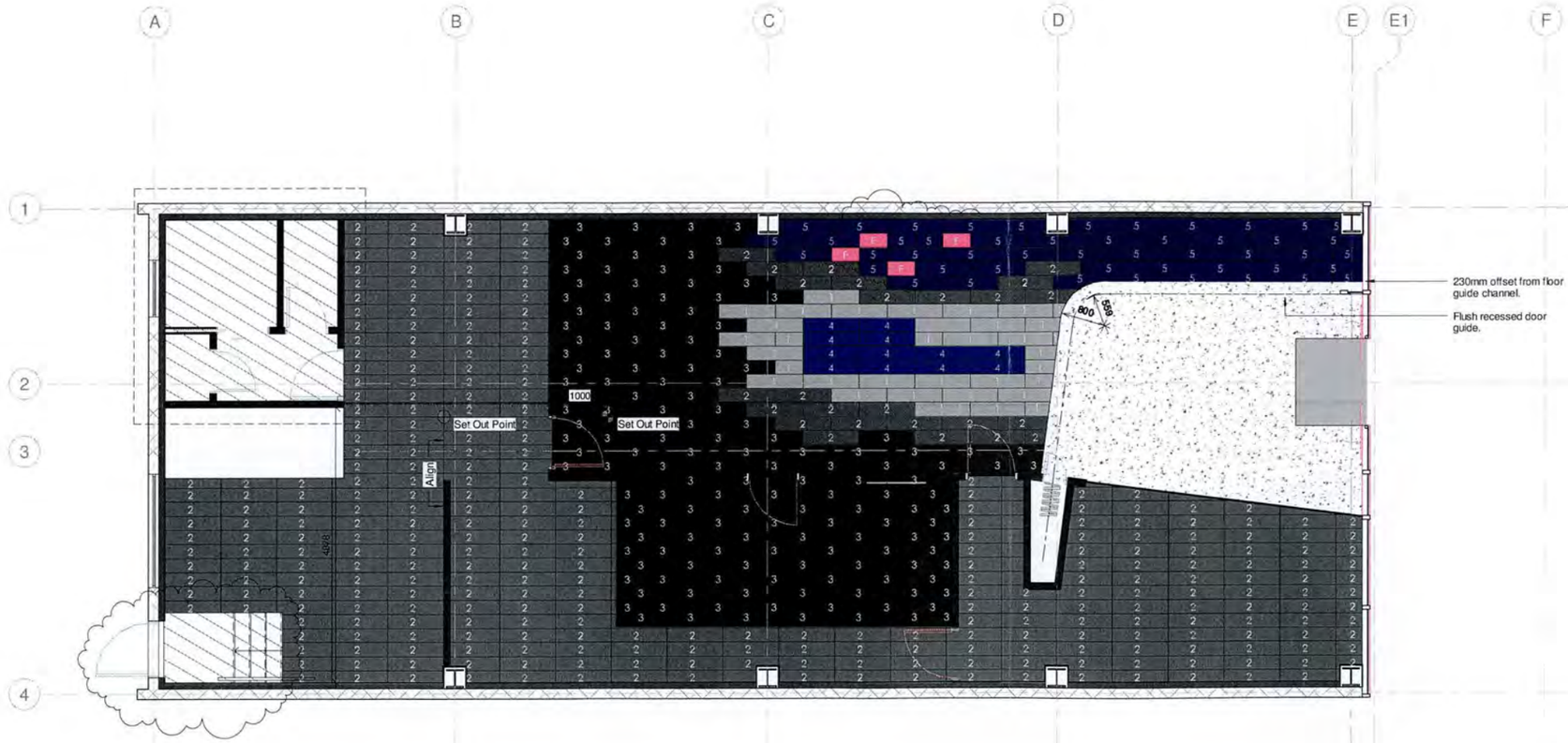
CARPET TILE SCHEDULE	
1	7 m²
2	78 m²
3	35 m²
4	3 m²
5	10 m²
F	1 m²

RETAIL - INDICATIVE FLOORING LAYOUT - STRETCH DESIGN

- Interface 'Urban Retreat Planks' Carpet Tile - Stone #7267-012-000
- Interface 'Urban Retreat Planks' Carpet Tile - Granite #7267-015-000
- Interface 'On Line' Carpet Tile - Indigo #7335-013-000
- Interface 'On Line' Carpet Tile - Lapis #7335-013-000
- Interface 'Urban Retreat Planks' Carpet tile - Navy #7267-010-000
- Interface 'Continuum' Carpet Tile - Navy #750801
- Interface 'Continuum' Carpet Tile - Fuchsia #750826

GENERAL NOTES

- Carpet tiles to be laid as per carpet tile layout plan.
- After carpet tiles are installed, allow for a 20/25 pound roller to be run across the entire surface.
- Please refer to manufacturers instructions for installation methodology.
- All quantities are indicative and the contractor is to allow for wastage.



2 / A200 CARPET TILE LAYOUT PLAN
1 : 50

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

NOTES

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Sheet Name
FIT-OUT_ CARPET TILE LAYOUT

SCALE @ A1= 1 : 50

North

DESIGN	BB
DRAWN	BB DP
VERIFIED	AM
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A602

ARCHITECTURAL

Original sheet size A1 (841x594) Plot date: 11/11/2014 6:03:02 p.m. C:\Projects\BNZWA_Tender_2014_Central_aubbb0(Recovery).rvt

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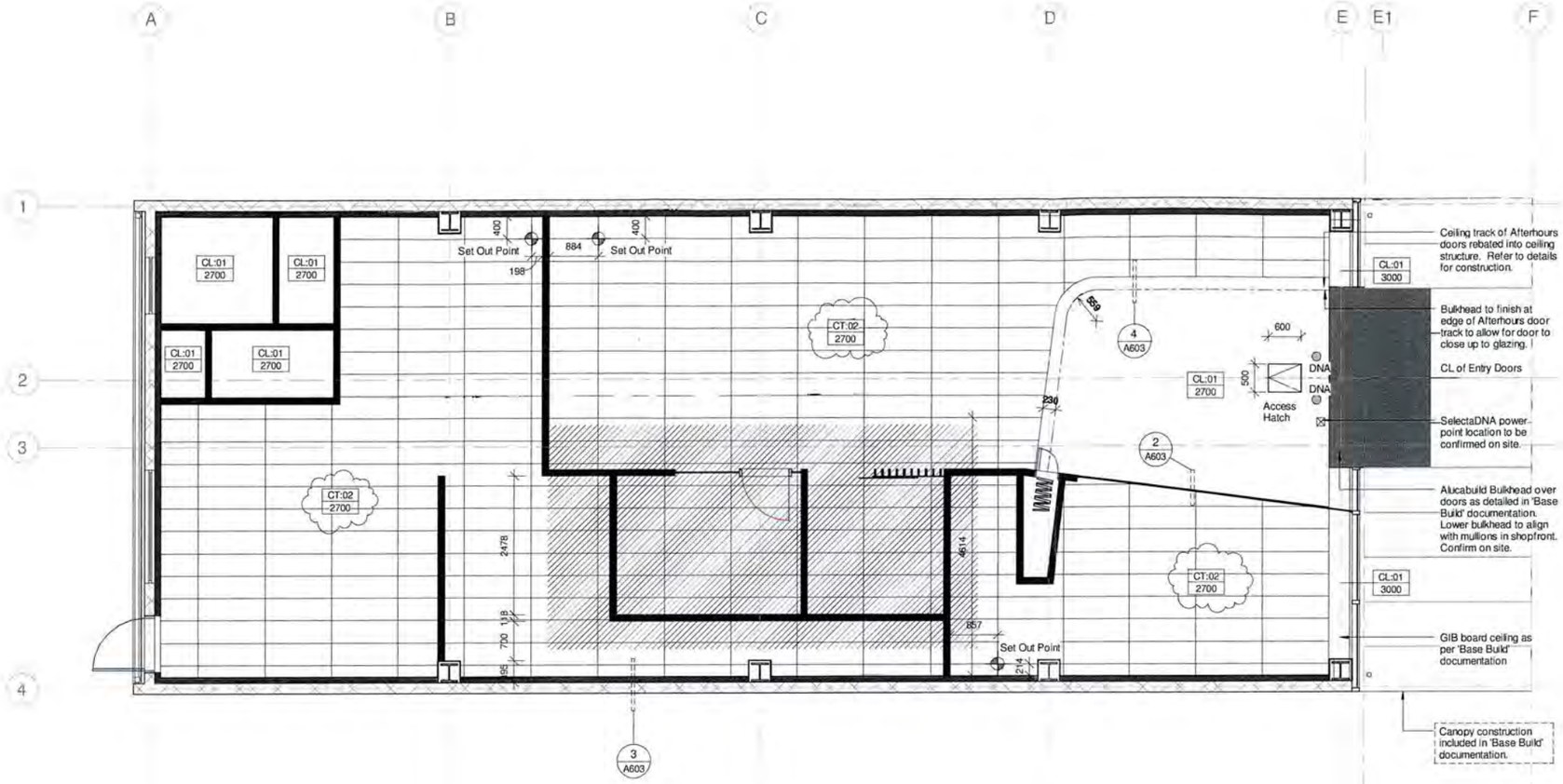


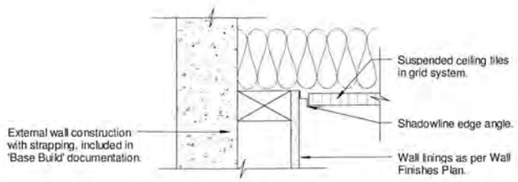
RETAIL - CEILING LEGEND

- CT:02 height — FOH & BOH Suspended Ceiling 1200x400 VT15 AMF Thermatex acoustic ceiling tiles. 15mm Grid.
- CL:01 height — New GIB ceiling fixed over suspended ceiling grid as per manufacturers specifications. Level 4 plaster finish. Paint.
- Ceiling access hatch. Location and no. required are to be confirmed onsite.
- DNA — SelectaDNA Spray heads (supply & install by others). Note: Contractor to allow to liaise with the security contractor regarding installation.
- SelectaDNA Spray Heads power point GPO for control panel. Installed within ceiling space. Supply and installation forms part of the main contractor works.
- Acoustic Insulation, 2 layers of Autex ASB6 insulation over ceiling. Ensure 100mm gap between insulation and recessed downlights. Butt edges and joins to ensure no gaps. Insulation to extend past walls 1m in every direction.
- Indicates ceiling which is to be detailed in 'Base Build' documentation.

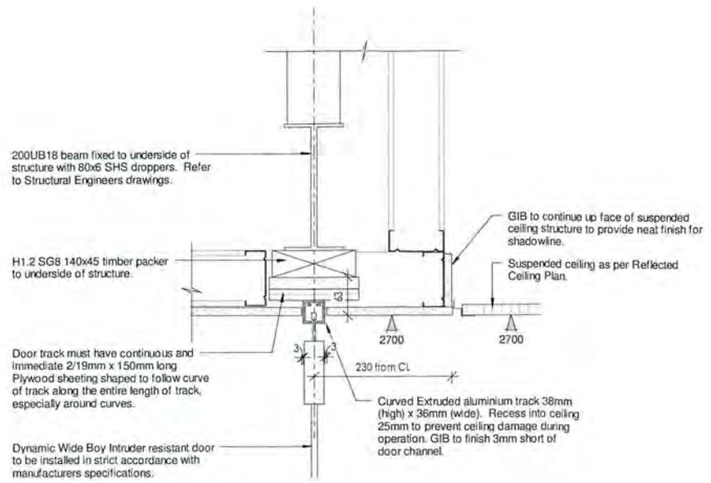
RETAIL - CEILING NOTES

- Ceiling plan to be read in conjunction with Mechanical and Electrical services.
- Ceiling plan to be read in conjunction with 'Base Build' Documentation.
- Setout for entry bulkhead to be set out on site and confirmed with Architect and Client.
- Bracing to structure as specified by USG Boral Seismic design. Refer to Fit-out specification.

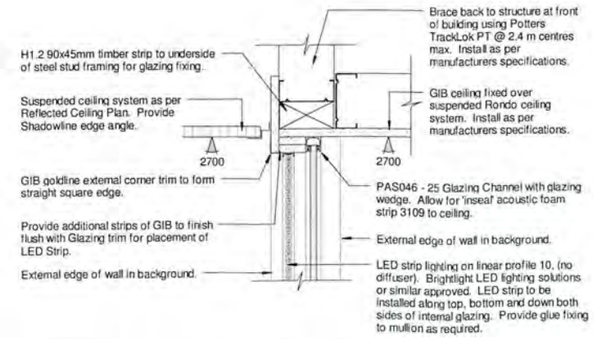
5 / A200 FIT-OUT_ REFLECTED CEILING PLAN
1 : 50 @ A1



3 / A603 PO4 SECTION (External Wall)
1 : 5



4 / A603 AFTER HOURS LOBBY DOOR
1 : 5



2 / A603 AFTER HOURS GLAZED WALL
1 : 5

REVISIONS

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Sheet Name
FIT-OUT_ REFLECTED CEILING PLAN

SCALE @ A1= As indicated

North	DESIGN	BB
	DRAWN	BB DP
	VERIFIED	AM
	APPROVED	SG

Project No.	Issue Date
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Revision	Sheet No.
1	A603

ARCHITECTURAL

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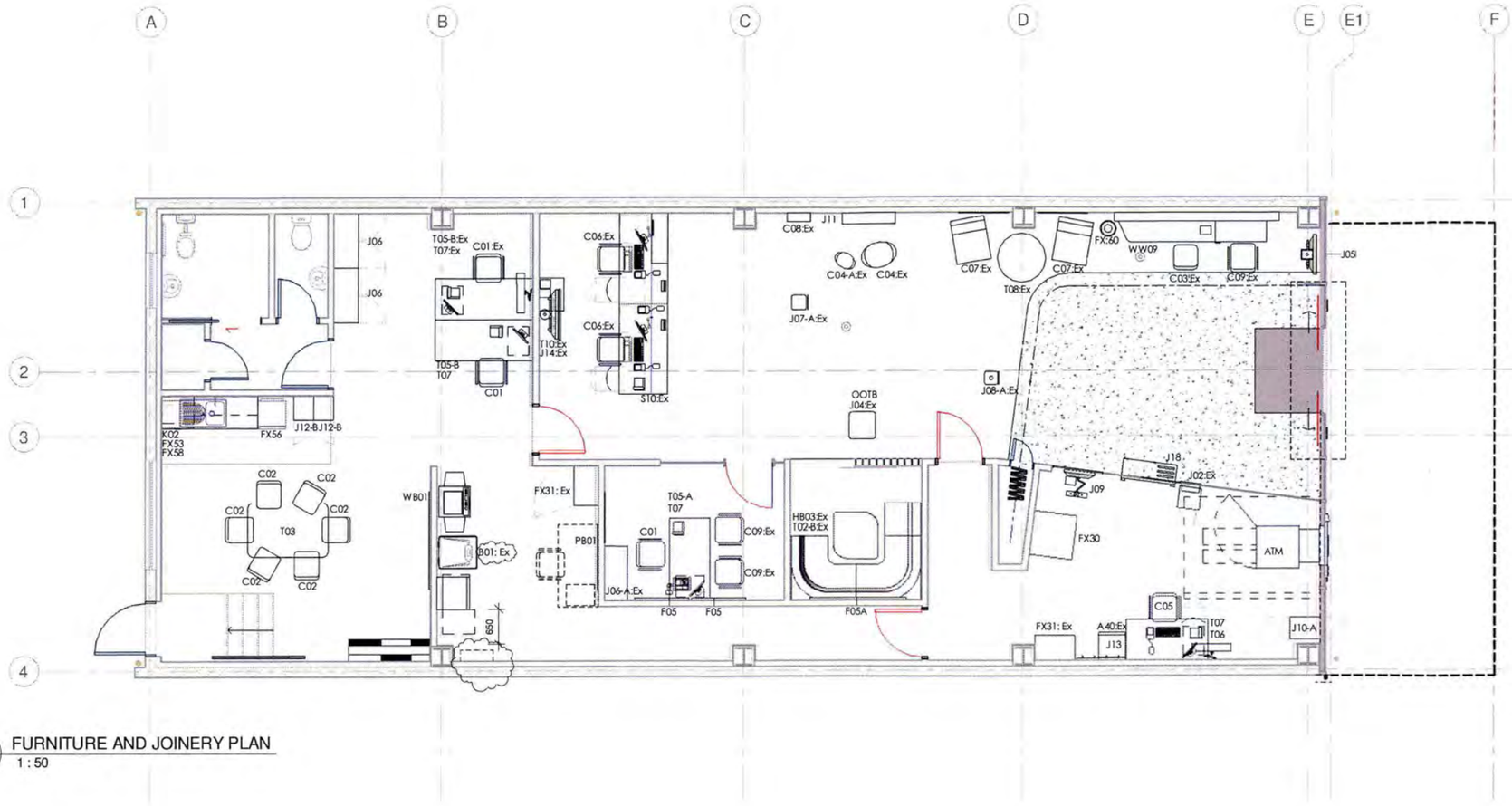

1 / A200 FURNITURE AND JOINERY PLAN
1 : 50

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

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A	Draft Consent and Tender Issue	2014.10.29
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FIT-OUT_ FURNITURE & JOINERY PLAN

SCALE @ A1= 1 : 50

North

DESIGN	BB
DRAWN	BB DP
VERIFIED	AM
APPROVED	SG

Project No.	Issue Date
4-M0633.01	2014.11.11

Revision	Sheet No.
1	A604

ARCHITECTURAL

0 10mm 50 100

RETAIL_Furniture & Joinery Schedule

BNZ Code	Total Count	Existing to be re-used	BNZ Description	BNZ Location	BNZ Supplier	BNZ Main Contractor's Responsibilities	BNZ Notes / Instructions	BNZ Design Guidelines 6.0 Sheet Reference
A40:Ex	1	Existing BNZ	Mother Bag Trolley (reused)	Back of House	BNZ		Existing to be Reused	
AV	1		AV Comms Cabinet	BoH		Refer Sheet 97 for fixing details	Wall Hung	
B01:Ex	1	Existing BNZ	Recall Bin	Back of House	BNZ			
C01	2		Workstation Chair	Shop Floor / BoH	Avelle			
C01:Ex	1	Existing BNZ	Workstation Chair	Shop Floor / BoH	Existing to be reused			
C02	6		Tea Point Chair	Tea Point	Kada		'May May' Polyprop Chair	
C03:Ex	1	Existing BNZ	Bar Stool	Service and Enquiries / Wonderwall	Simon James			
C04-A:Ex	1	Existing BNZ	Kids Seat - small	Shop Floor - Kids Area			Upholsered Furniture	
C04:Ex	1	Existing BNZ	Kids Seat - large	Shop Floor - Kids Area			Upholstered Furniture	
C05	1		DMZ Workstation Chair	Back of House	Avelle		'Think' Task Chair or 'Skin' Task Chair	
C06:Ex	2	Existing BNZ	Teller Chair	Shop floor and Business Area		Requires removal of write up bench extension. Make good.	'Think' Task Chair	
C07:Ex	2	Existing BNZ	Waiting Chair	Shop Floor				
C08:Ex	1	Existing BNZ	Wall Clock - Black face / Silver	Shop Floor			400mm square x 16mm deep	
C09:Ex	3	Existing BNZ	Client FOH Chair	Shop Floor	Existing to be reused			
EX:S10	1	Existing BNZ	Double Teller Desk	Shop Floor	Joiner	Main Contractor to allow to liaise with joiner	supplied by a BNZ nominated supplier and supplied under the main contractor's tender pricing	
F05	2		Acoustic Panel - 1010w x 1400h x 24d	Worstation Area	Autex	Supplied by a BNZ nominated supplier and supplied under the Main Contractor's Contract.		Refer to DG 8.30
F05A	1		Acoustic Panel - 1760w x 970h x 24d	Worstation Area	Autex	Supplied by a BNZ nominated supplier and supplied under the Main Contractor's Contract.		Refer to DG 8.31
FX30	1		Type 4 Treasury	Back of House / Business Area	BNZ			
FX31:Ex	2	Existing BNZ	Coin Safe Existing to be reused	Back of House / Business Area	BNZ			
FX53	1		Dish Drawer	Tea Point	Southern Hospitality			
FX56	1		Fridge	Tea Point	Harvey Norman			
FX58	1		Microwave	Tea Point	Harvey Norman			
FX60	1		Waste Paper Bin	Shop Floor - Wunderwall			Jasper Morrision - Waste Paper Bin Black 1750C Note: 2off per store	
J02:Ex	1	Existing BNZ	Express Deposit Box	Back of House		Main Contractor to allow for cut-out in Express Wall Glazing for Express deposit chute. Existing unit may require minor alterations to due glazing wall, currently installed in GIB wall. Confirm on site prior to construction.		Install as per DG10.20.
J04:Ex	1	Existing BNZ	Promotional Plinth	Shop Floor				
J05l	1		Shop Front Screen on Telehook	Shop Floor in Shop Font Window	BNZ	Install of telehook by Main Contractor; Main contractor to allow for stuctural support in ceiling to support weight of screen	Supply of screen & telehook by others	Refer to Sheet DG10.18.08
J06	2		BA Storage / Filing Cupboard	Back of House	Cite			
J06-A:Ex	1	Existing BNZ	Storage / Filing Cupboard sml	Back of House			O/A cabinet size: 1000w x 795h x 440d ordered by Davis Langdon	
J07-A:Ex	1	Existing BNZ	Queue Stand	Shop Floor				
J08-A:Ex	1	Existing BNZ	Security Stand	Shop Floor				
J09	1		Express Screen with Telehook wall mounting bracket.	Shop Floor	BNZ	Relocate existing screen TE07:Ex from existing store. Main Contractor to supply and install post and its associated floor and ceiling fixings and to provide structural support in ceiling	Telehook wall mounting bracket supply and installed by others	Refer Sheet DG10.18
J10-A	1		Courier Drop Box	Back of House	Joiner	Main Contractor to allow for opening in Shopfront glazing to be adjusted to new Courier Drop Box size; Main Contractor to ensure that ATM clearances are ensured	Reduced size (450mm x 450mm).	Refer Sheet DG10.22
J11	1		Kids Screen Joinery Unit	Shop Floor - Kids Area		Main Contractor to allow for extra nogging in wall for fixing of joinery, liaise with joiner		Install as per Sheet DG10.18
J12B	2		3 Tier Staff Lockers	Tea Point	Europlan		3 Tier	
J13	1		Mail Bag Hooks	Back of House	Joiner			Refer Sheet DG10.20
J14:Ex	1	Existing BNZ	Sales Screen on Telehook	Shop Floor in Shop Front Window	BNZ	Install of telehook by Main Contractor; Main contractor to allow for stuctural support in ceiling to support weight of screen	Supply of screen & telehook by others	Refer to Sheet DG10.18.03
J18	1		Express Write-up bench	Shop Floor	Joiner	Main Contractor to install steel portal frame to suit joinery unit. Provide 60mm diameter or 50mm square cutout to glass	supplied by a BNZ nominated supplier and supplied under the main contractor's tender pricing	Refer to Sheet DG10.19.03
K02	1		Kitchenette excluding Cleaners Cupboard	Tea Point	Joiner	supplied by a BNZ nominated supplier and supplied under the main contractor's tender pricing		Refer to Sheet DG10.17
PB01	1		Pinboard	Back of House	3D Products		1200 x 1200mm	
T03	1		Tea Point Table	Tea Point	Vidak		720H x 1200L x 800W	
T05-A	1		Workstation	BOH	Kada			
T05-B	1		Workstation	Shop Floor				
T05-B:Ex	1	Existing BNZ	Workstation	Shop Floor				
T06	1		DMZ Desk	Back of House	Kada			
T07	3		Mobile Pedestal	Desk	Kada			
T07:Ex	1	Existing BNZ	Mobile Pedestal	Desk				
T08:Ex	1	Existing BNZ	Waiting Area Coffee Table	Shop Floor				
T10:Ex	1	Existing BNZ	Printer Pedestal Mobile	Back of House / Worstation Area				
WB01	1		White Board	Back of House	3D Products			
WW09	1		Wunder Wall Design 1 Stretch (with accessible write-up)	Shop Floor	Joiner	Main Contractor to allow for extra nogging in walls for fixing and to liaise with joiner	Supplied by a BNZ nominated supplier and supplied under the Main Contractor's Contract	Refer to Sheet DG10.30

REVISIONS

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Sheet Name
FIT-OUT_ FURNIT & JOINERY SCHEDULE

SCALE @ A1=

North

DESIGN	BB
DRAWN	BB DP
VERIFIED	AM
APPROVED	SG

Project No.: 4-M0633.01
Issue Date: 2014.11.11
Revision: 1
Sheet No.: A605

ARCHITECTURAL

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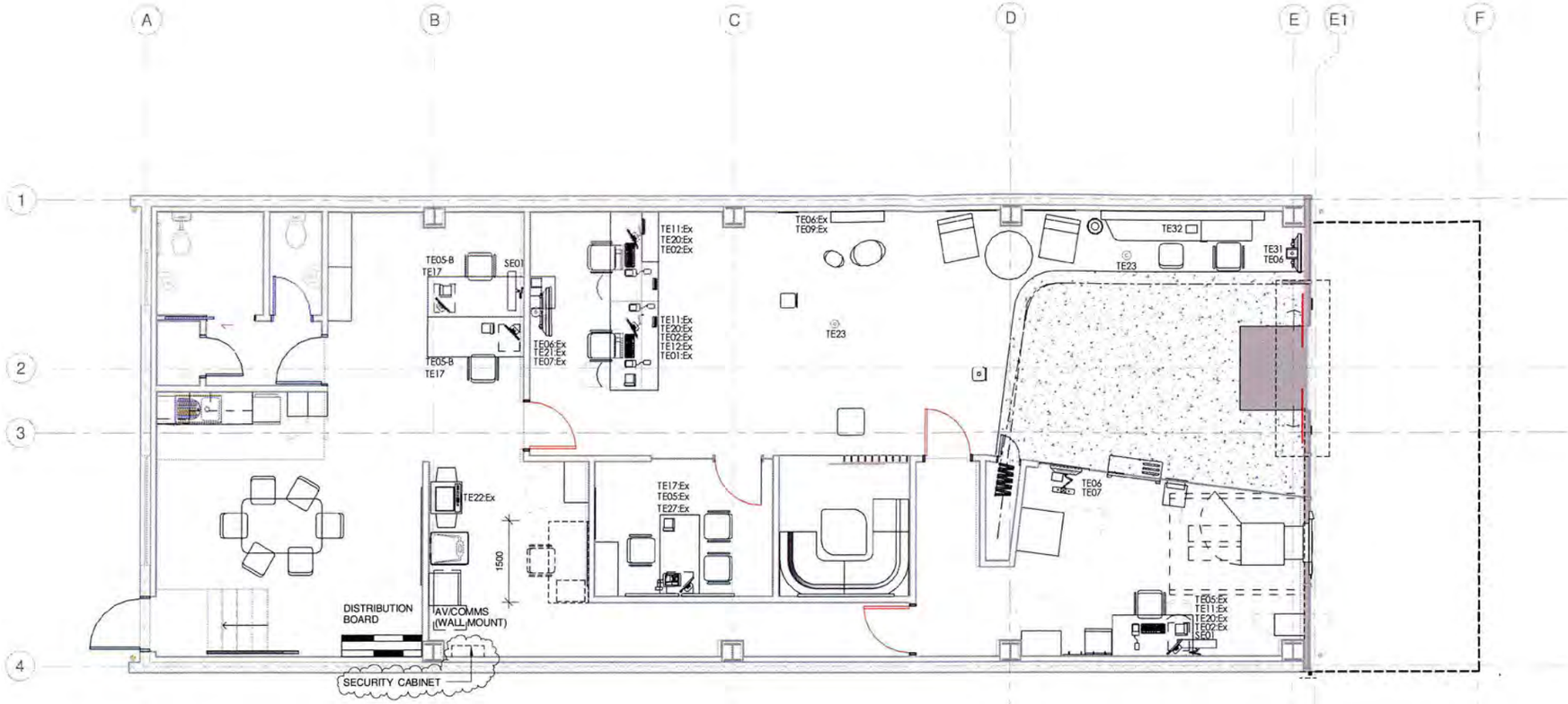

1 / A200 ELECTRONICS PLAN

1 : 50

RETAIL_Electronics Schedule

BNZ Code	Total Count	Existing to be re-used	BNZ Description	BNZ Location	BNZ Supplier	BNZ Main Contractor's Responsibilities	BNZ Notes / Instructions	BNZ Design Guidelines 6.0 Sheet Reference
SE01	2		TECH - Security Monitor	Back of House	BNZ			
TE01:Ex	1	Existing BNZ	TECH - Enquires Desk Phone	Tellers	BNZ			
TE02:Ex	3	Existing BNZ	TECH - BNZ Standard Tellers Desktop and Peripherals	Tellers				
TE05-B	2		TECH - Cisco Desk Phone	BA Office	BNZ			
TE05:Ex	2	Existing BNZ	TECH - Cisco Desk Phone	BA Office	BNZ			
TE06	2		TECH - Cisco Digital Media Player	At TV location	Cisco			
TE06:Ex	2	Existing BNZ	TECH - Reuse Existing Media Player	At TV location				
TE07	1		TECH - 40" Cisco LCD Professional Series Screen	Interior				
TE07:Ex	1	Existing BNZ	TECH - 40" Cisco LCD Professional Series Screen	Interior	BNZ			
TE09:Ex	1	Existing BNZ	TECH - 32" LED Screen	Interior	BNZ			
TE11:Ex	3	Existing BNZ	TECH - ECD Unit	Front of House and Back of House	BNZ			
TE12:Ex	1	Existing BNZ	TECH - EFTPOS Terminal & Pinpad	Tellers	BNZ			
TE17	2		TECH - HP Compaq 19" Widescreen Swivel Bracket Mounted	Desk				
TE17:Ex	1	Existing BNZ	TECH - HP Compaq 19" Widescreen Swivel Bracket Mounted	Desk	BNZ			
TE20:Ex	3	Existing BNZ	TECH - 17" Monitor on swivel mounted bracket	Desk	BNZ			
TE21:Ex	1	Existing BNZ	TECH - Reuse existing Bank Cheque Printer	Behind Tellers	BNZ			
TE22:Ex	1	Existing BNZ	TECH - MFD	Workstation Area (Shop Floor & Back of House	BNZ			
TE23	2		TECH - In Ceiling Speakers	FOH		Locate away from transactional areas	Connected to Digital Media Players or connected to central amplifier, DVD, Sky decoder and CD controlled from the computer room	
TE27:Ex	1	Existing BNZ	TECH - Cisco Video Phone	BA Office	BNZ			
TE31	1		TECH - 55" Cisco LCD Professional Series Screen	Interior				
TE32	1		TECH - 1xipad secured with Vitag LTO4900 ipad security system (white) and LTO4400 acrylic stand	Wunderwall				

DO NOT SCALE

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Sheet Name

FIT OUT_TECHNOLOGY PLAN & SCHEDULE

SCALE @ A1= 1 : 50

North

DESIGN	BB
DRAWN	BB DP
VERIFIED	AM
APPROVED	SG

Project No. 4-M0633.01

Issue Date 2014.11.11

Revision 1

Sheet No. A606

ARCHITECTURAL

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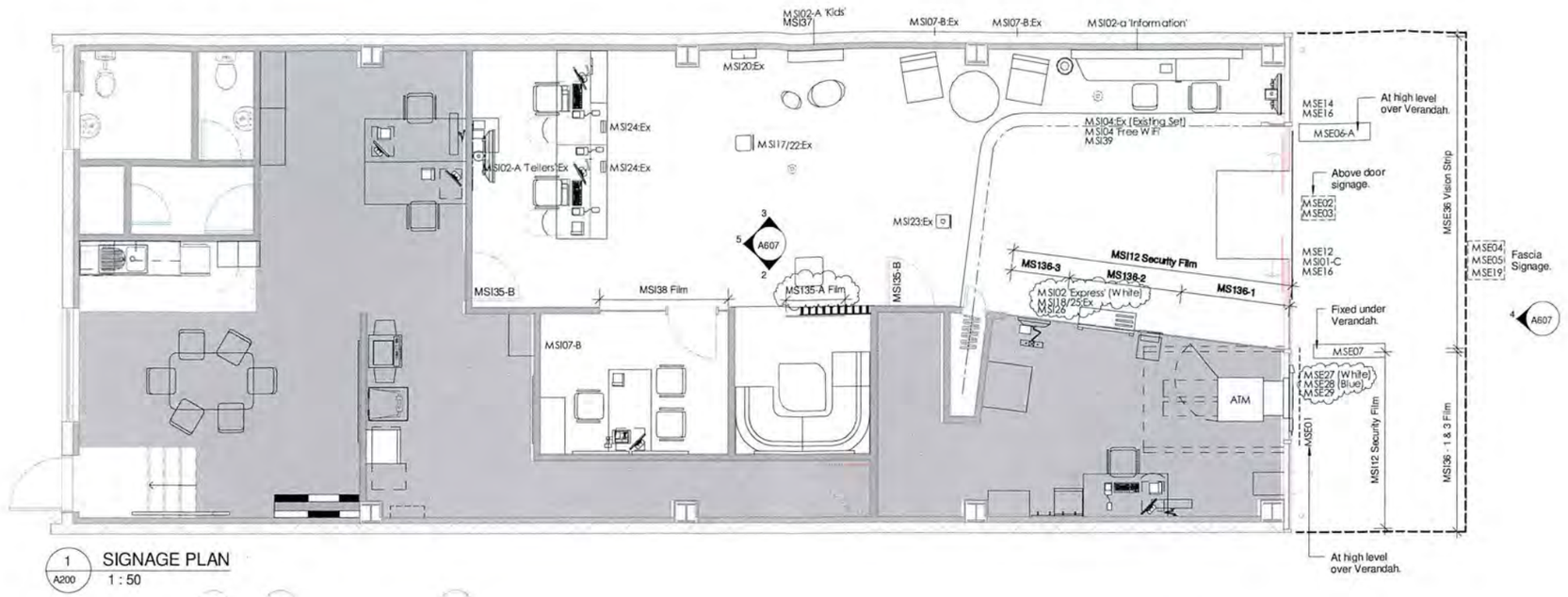
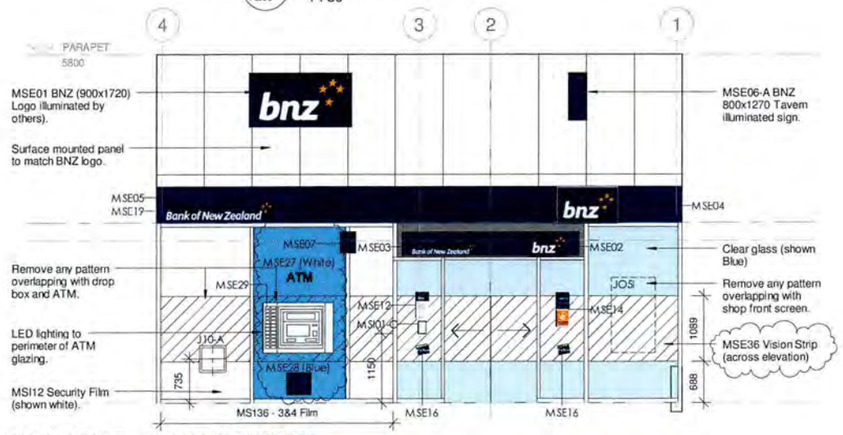
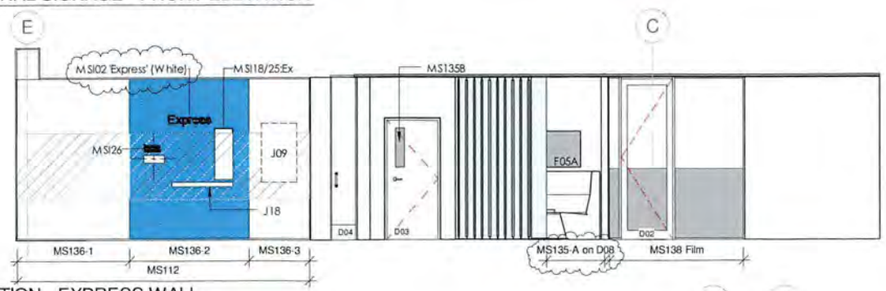


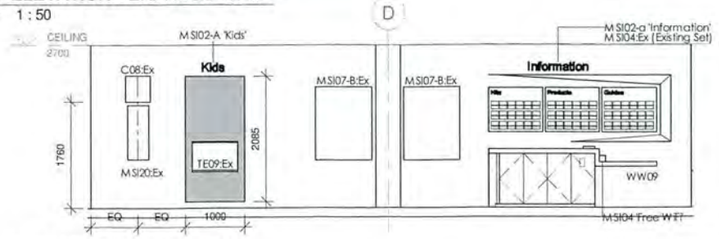
1 / A200 SIGNAGE PLAN
1 : 50



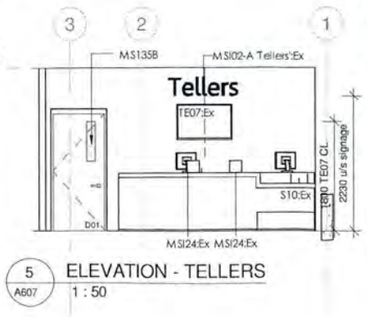
4 / A607 EXTERNAL SIGNAGE - FRONT ELEVATION
1 : 50



2 / A607 ELEVATION - EXPRESS WALL
1 : 50



3 / A607 ELEVATION - WUNDERWALL
1 : 50



5 / A607 ELEVATION - TELLERS
1 : 50

FILM SCHEDULE

Note: Where screens are located behind film, allow for overlapping shapes to be removed.

BNZ CODE	DESCRIPTION	COMMENTS
MSI12	Security Film	Refer Sheet 64 of Marketing & Signage Design Guidelines 6.0.
MSI29	BA Privacy Film	Refer Sheet 49 of Marketing & Signage Design Guidelines 6.0.
MSI37	Kids Unit Film	Refer sheet 62 of Marketing & Signage Design Guidelines 6.0.
MSE36	Vision Strip	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI35-A	Vision Strip Film	Refer Sheet 62 of Marketing & Signage Design Guidelines 6.0.
MSI35-B	Vision Panel Film	Refer Sheet 62 of Marketing & Signage Design Guidelines 6.0.
MSI36-1	Express Wall Vinyl	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI36-2	Express Wall Vinyl	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI36-3	Express Wall Vinyl	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI36-4	Express Wall Vinyl	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI38	BA Privacy Film	Refer Sheet 63 of Marketing & Signage Design Guidelines 6.0.

RETAIL_Signage

BNZ Code	Total Count	Existing to be re-used	BNZ Description	BNZ Location	BNZ Supplier	BNZ Main Contractor's Responsibilities	BNZ Store Guidelines 6.1 Marketing & Signage Reference
MSE01	1		BNZ Badge	Exterior			Refer Page 5.
MSE02	1		Transom Badge	Exterior			Refer Page 6.
MSE03	1		Transom Panel	Exterior			Refer Page 6.
MSE04	1		Fascia Badge	Exterior			Refer Page 6.
MSE05	1		Fascia Panel	Exterior			Refer Page 6.
MSE06-A	1		Tavern Sign	Exterior			Refer Page 9.
MSE07	1		Under Verandah Sign	Exterior			Refer Page 10.
MSE12	1		Hours Sign Holder	Exterior			Refer Page 15.
MSE14	1		Security Signage	Exterior			Refer Page 16.
MSE16	2		Fly Buys Decal	Exterior			Refer Page 17.
MSE19	1		Fascia Panel Wordmark	Exterior			Refer Page 9.
MSE27 (White)	1		Stretch Design ATM Vinyl	Exterior			Refer Page 59.
MSE28 (Blue)	1		Stretch Design ATM Rubbish Bin	Exterior			Refer Page 60.
MSE29	1		ATM Card Decals	Exterior			Refer Page 59.
MSI01-C	1		Disabled Access Window Sign	Exterior			Refer Page 41.
MSI02 'Express' (White)	1		'Express'	Interior			Refer Page 32.
MSI02 'Kids'	1		Kids	Interior			Refer Page 32.
MSI02-a 'Information'	1		Information	Interior			Refer Page 34.
MSI02-A 'Tellers':Ex	1	Existing BNZ	Tellers	Interior			Refer Page 34.
MSI04 'Free WiFi'	1		Free WiFi	Interior			
MSI04:Ex	1	Existing BNZ	Existing	Interior			
MSI07-B	1		Ao Poster Holders	Interior			Refer Page 45.
MSI07-B:Ex	2	Existing BNZ	Ao Poster Holders	Interior			
MSI17/22:Ex	1	Existing BNZ	Queue Plinth	Interior			
MSI18/25:Ex	1	Existing BNZ	Express Bag Holder	Interior			
MSI20:Ex	1	Existing BNZ	Collateral Holder	Interior			
MSI23:Ex	1	Existing BNZ	Security Plinth Signage	Interior			
MSI24:Ex	2	Existing BNZ	ECD Security Sign	Interior			
MSI26	1		Express Deposit Signage	Interior			Refer Page 52.
MSI39	1		OOTB Signage	Interior			Refer Page 65.

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Sheet Name
FIT-OUT_ SIGNAGE PLAN & ELEVATIONS

SCALE @ A1= 1 : 50

North

DESIGN	BB
DRAWN	BB DP
VERIFIED	AM
APPROVED	SG

Project No. 4-M0633.01
Issue Date 2014.11.11
Revision 1
Sheet No. A607

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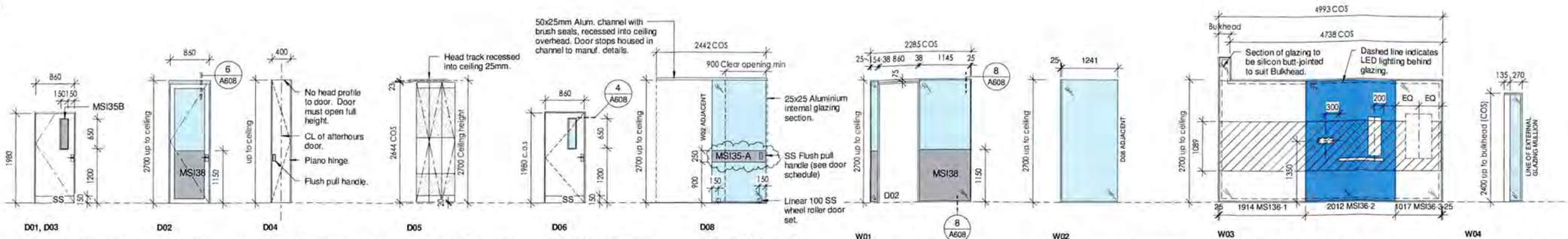


1 DOOR SCHEDULE
1 : 50

2 GLAZING SCHEDULE
1 : 50

Retail Door Schedule								
Door No.	Construction Type	Vision panel	Frame Material / Finish	Lock/ Latch	Door Furniture	Door Closer	Door Stop	Comments
D01	Timber Solid Core Door, PA:01 Paint Finish	Yes	Natural Anodised Aluminium	Security Door - Card Reader - Electric Mortice Lock, SCP with key override cylinder / transfer hinge (by Security Contractor)	Dalco 6000-52 Renoir 52, SCP & 6008 Cylinder Escutcheon.	LCN 1461 Reg Alum	Devon 1087 floor mounted	Provide rebates/holes for fitting security hardware by security contractor. Anti jemmy strip.
D02	Glazed Aluminium Framed Door		Natural Anodised Aluminium	Legge 990 V Series with privacy latch	Dalco 6000-52 Renior 52, SCP & 6008 Cylinder Escutcheon.		Devon 1087 floor mounted	
D03	Timber Solid Core Door, PA:01 Paint Finish	Yes	Natural Anodised Aluminium	Legge 990 V31/V32	Dalco 6000-52 Renoir 52, SCP & 6008 Cylinder Escutcheon.	LCN 1461 Reg Alum.	Devon 1087 floor mounted	Provide rebates/holes for fitting security hardware by security contractor. Anti jemmy strip
D04	Timber Solid Core Door, PA:01 Paint Finish. Set out central to Afterhours door head track.		Natural Anodised Aluminium	Legge 990 V Series	Flush Pull			Piano hinge full height, lockable door with single key access to afterhours door storage.
D05	Dynamic Wide Body Intruder Resistant Door			Provide drop bolts and dustproof floor sockets thorugh concrete as required.				Install in strict accordance with manufacturers details. Ensure top and bottom clearance for ease of opening.
D06	Timber Solid Core Door, PA:01 Paint Finish	Yes	Natural Anodised Aluminium	Legge 990 V31/V32	Dalco 6000-52 Renoir 52, SCP & 6008 Cylinder Escutcheon.	LCN 1461 Reg Alum.	Devon 1087 floor mounted	Provide rebates/holes for fitting security hardware by security contractor. Anti jemmy strip
D08	Full height frameless glass cavity sliding door		Natural Anodised Aluminium	nil	Linear 100 SS Wheelbottom roller sliding door set. Metro Glass Linea 153 Flush pull			Metro 100 frameless glass cavity sliding door with 10mm toughened glass. Provide rebates/ holes for fitting follers and or door pull handles.

DOOR NOTES

- Contractor shall verify all dimensions on site prior to fabrication. All dimensions represent leaf sizes unless otherwise specified.

- Refer to specification for door thickness with 6mm clashing strips to all 2 exposed sides unless stated otherwise. Paint quality finished with Resene Paint Systems.

- All furniture shall be finished Satin Chrome (SC).

- Door handles to be mounted at 1000mm above floor level to center of handles unless otherwise specified.

- All glazing shall be in accordance with AS/NZS 2208: 'Safety Glazing Materials for use in Building.' (Human Impact Considerations) and NZS 4223: Code of Practice for Glazing in Building.

- Door vision panels to be 6.38 laminated glass and to have 3M one way mirror film applied to them. For fire doors use fire rated glass.

- All keyed locks are to be keyed to suit Facility Managers requirements. Allow for master keying.

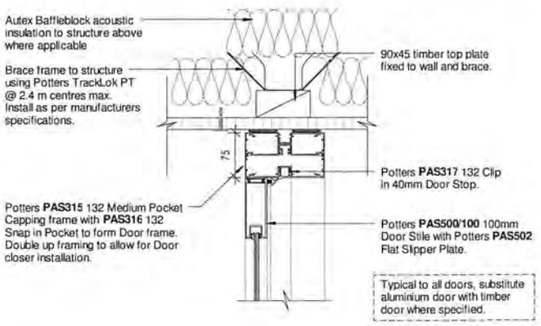
- Refer to Fire Report for additional information regarding hardware.

- Glazed doors to have manifestation compliant with codes; All manifestation is supplied by Signage Contractor; refer to Marketing & Signage Part of the Design Guidelines for clarification.

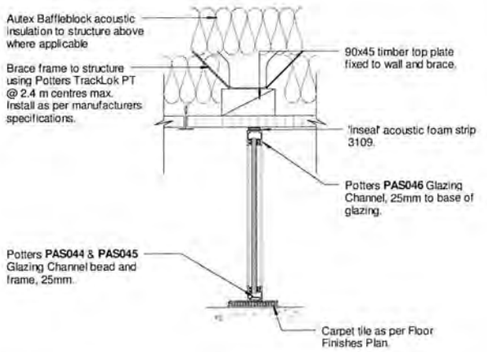
- Locks and access control to security doors are to be ordered and fitted by the BNZ nominated security contractor. Liaise with Security Contractor for wiring requirements. Main Contractor to provide rebates / holes for Security Locks in doors and frames. **Main Contractor shall ensure that under no circumstances drilling into a door occurs that has a security lock installed. The lock MUST be removed prior to any drilling. Ideally this would be coordinated with the security contractor onsite.**

- Door furniture and all other door hardware (hardware, handles & door closer; any keys are to be keyed to the banks master key system) or be ordered and fitted by main Contractor. Main Contractor to mount Door closer on hinge side of Door.

- Drawings are to be read in conjunction with BNZ Security Specifications.



6 A608 DOOR HEAD DETAIL
1 : 5



8 A608 Glazing Channel Head & Sill Detail
1 : 5

FILM SCHEDULE

Note: Where screens are located behind film, allow for overlapping shapes to be removed.

BNZ CODE	DESCRIPTION	COMMENTS
MSI12	Security Film	Refer Sheet 64 of Marketing & Signage Design Guidelines 6.0.
MSI29	BA Privacy Film	Refer Sheet 49 of Marketing & Signage Design Guidelines 6.0.
MSI37	Kids Unit Film	Refer sheet 62 of Marketing & Signage Design Guidelines 6.0.
MSE36	Vision Strip	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI35-A	Vision Strip Film	Refer Sheet 62 of Marketing & Signage Design Guidelines 6.0.
MSI35-B	Vision Panel Film	Refer Sheet 62 of Marketing & Signage Design Guidelines 6.0.
MSI36-1	Express Wall Vinyl	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI36-2	Express Wall Vinyl	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI36-3	Express Wall Vinyl	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI36-4	Express Wall Vinyl	Refer Sheet 61 of Marketing & Signage Design Guidelines 6.0.
MSI38	BA Privacy Film	Refer Sheet 63 of Marketing & Signage Design Guidelines 6.0.

RETAIL - WINDOW NOTES

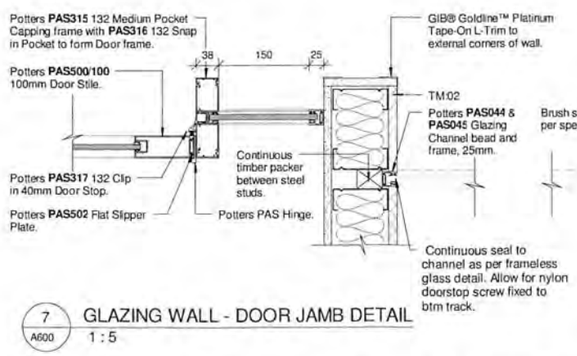
- Windows are to be fabricated to NZS 4211, Workmanship and materials shall comply with NZS 4223:1985 (Parts 1 & 2) and NZS 4223:1999 (Part 3). All glazing to be to NZ standards unless otherwise specified.

- All window frame measurements to be verified on site prior to fabrication. Dimensions shown are to the rough opening size or to the centre of mullions or transoms.

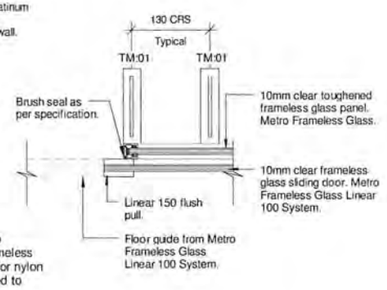
- Interior window partitions to be Potters Sapphire Wideline suite unless otherwise specified. Natural Anodized finish. All windows shall be installed in accordance with manufacturer's recommendations unless otherwise specified.

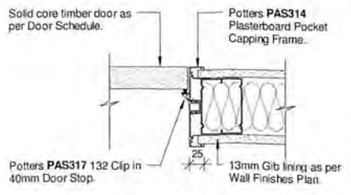
- Window vision panel to be 3M film. Refer to BNZ Store Design Guidelines.

- Hub Glazed Partition - Glazed Partition to be supplied & installed under Main Contractor's Works. For detailed information refer to Hub Design Guideline 10.08 (v6.1).

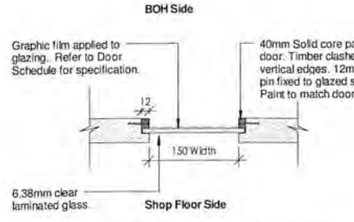


7 A600 GLAZING WALL - DOOR JAMB DETAIL
1 : 5





4 A608 TIMBER DOOR / ALUMINIUM JAMB
1 : 5



3 TIMBER DOOR - VISION PANEL
1 : 5

DO NOT SCALE

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK

REVISIONS

A	Draft Consent and Tender Issue	2014.10.29
1	Consent and Tender Issue	2014.11.11

FOR CONSTRUCTION

NOTES

1. All suspended ceiling systems to be installed as per Manufacturers specifications.
2. This drawing to be read in conjunction with services documents and fire report.
3. Make good to any existing ceilings damaged during the construction period.
4. Confirm all existing ceiling heights on site prior to construction.
5. Any descripancies to be notified to the Project Manager as soon as possible.
6. Contractor to allow for suspended ceiling compression bracing where applicable.
7. Contractor to ensure the suspended ceiling is rigid and held firmly from existing structure.
8. Refer M&E drawings for ceiling mounted fittings and layout.
9. Confirm required access hatch locations with Architect prior to installation on site.

OPUS architecture
Auckland Studio
PO Box 5848, Auckland 1010
New Zealand
+64 9 355 9500

Client
Bank of New Zealand

Project
BNZ Waipukurau
63 Ruataniwha Street
Waipukurau

Sheet Name
FIT-OUT_WINDOW & DOOR SCHEDULE

SCALE @ A1= As indicated

North

DESIGN	BB
DRAWN	BB DP
VERIFIED	AM
APPROVED	SG

Project No.: 4-M0633.01
Issue Date: 2014.11.11
Revision: 1
Sheet No.: A608

ARCHITECTURAL

10mm 50 100

18 May 1994

Dagg and Thorn
Registered Surveyors
P O Box 395
NAPIER

Dear Sir,

Survey Plan - Gaisford Properties/Clayton Family Trust

Please find enclosed the survey plan of subdivision, signed and sealed by Council.

Please note that the current registrations which need to be transferred to the new titles are not included on the face of the plan. You had also advised that easement T 93771 was to be surrendered.

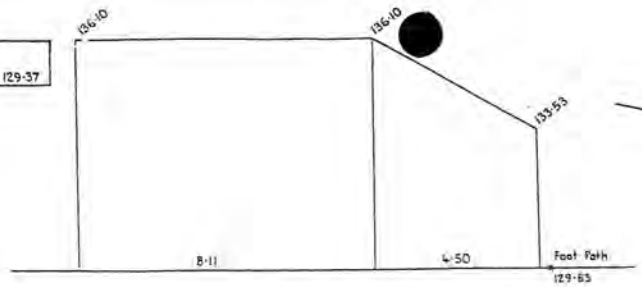
The solicitor acting for this transaction is John Armstrong.

Yours faithfully

Dorothea Millen (Mrs)
MANAGER
REGULATORY SERVICES

dm:mrs16may94

Height Datum 'Napier Datum 1962'
Mean Sea Level Om A.R.M.4 S.O.9736 129.37



LONGITUDINAL SECTION OF WALL SCALE 1:100

(No. 2 STATE HIGHWAY)
RUATANIWHA STREET
Legal road 20.12 wide

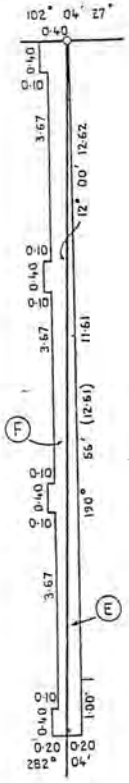


Diagram 'A'
Not to scale

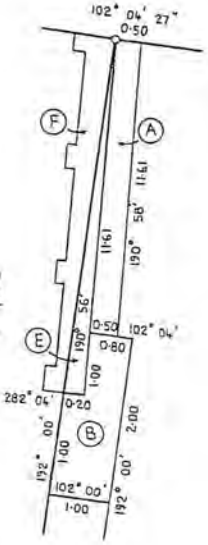


Diagram 'B'
Not to scale

Pt 3
D.P. 4169

Memorandum of Easements

Purpose	Servient Ten.	Shown	Dominant Tenement
Party wall	Lot 1 hereon	(F)	Lot 2 hereon
	Lot 2 hereon	(E)	
Right to convey water	Lot 2 hereon	(A) (B)	Lot 1 hereon
	Lot 2 hereon	(B) (C)	
Right to convey sewage	Lot 1 hereon	(D)	Lot 2 hereon

Approved pursuant to Section 223 of the Resource Management Act 1991 on the 6th day of April 1994 subject to the granting or reserving of the easements set out in the Memorandum hereon.
The Common Seal of the Central Hawkes Bay Council is affixed hereto in the presence of:
Mayor
General Manager
94/68

Pursuant to Section 224(c) of the Resource Management Act 1991 I hereby certify that all the conditions of the subdivision consent have been complied with to the satisfaction of the Central Hawkes Bay Council.
Dated this 18 day of MAY 1994
General Manager

The Common Seal of G.P.L. South Limited was hereto affixed in the presence of:
Director
Director

B.G. Clayton
P.B. Clayton

New C.T.' Allocated
V2/378 Lot 1 V2/379 Lot 2
Co-ordinates are in terms of
Geodetic Datum 1949
"A" Hawke's Bay 700,000 metres N
300,000 metres E

Total Area 562 m²
Comprised in C.T. 128/104 G(All) C.T. 204/82G(All)

I, Andrew Christopher Peterson Dagg of Napier Registered Surveyor and holder of an annual practising certificate (or who may act as a registered surveyor pursuant to section 25 of the Survey Act 1986) hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972 or any regulations made in substitution thereof.
Dated at Napier this 18th day of April 19 94 Signature

Field Book 1734 p. 90-92 Traverse Book 146 p. 43-44
Reference Plans D.P. 3436, D.P. 7848 S.O.9736 D.P.9463 S.O.6785 S.O. 6794 D.P. 13383, D.P. 18277
Examined Correct B Douglas

Approved as to Survey
26/8/94 Acting Deputy Chief Surveyor

Deposited this day of 19
District Land Registrar

File
Received 21-7-94
Instructions
24265

93/44

LAND DISTRICT HAWKE'S BAY
SURVEY BLOCK & DIST. XIV WAIPUKURAU
NZMS SHEET No. V23/08-03

LOTS 1 & 2 FORMERLY LOT 1 & Pt LOT 2 D.P. 7848

LOCAL AUTHORITY CENTRAL H.B. DISTRICT
Surveyed by DAGG AND THORN
Scale 1:150 Date April 1994

SITE PLAN for PROPOSED EXTENSION to GPL SOUTH LTD. WAIPUKURAU.

6 April 1993

Dagg and Thorn
Registered Surveyors
P O Box 395
NAPIER

Dear Sir,

Boundary Adjustment - Bronwyn Clayton Family Trust/Gaisford Properties

The Staff Management Team under delegated authority from the Central Hawkes Bay District Council have approved the application as follows;

That pursuant to Sections 105, and 108 of the Resource Management Act 1991, consent be granted to Dagg and Thorn, on behalf of the owners to adjust the boundary between the land described as Lot 1, DP 7848, Waipukurau Township, and Lot 2, DP 7848, Waipukurau Township, Ruataniwha Street, Waipukurau, as follows;

1) That easements for sewerage be created as required over Lots 1 and 2, in favour of each lot. (It appears that the sewer line from the building on Lot 1 crosses Lot 2.)

2) That any existing registrations or easements be transferred to the new titles except the easement T 93771, which is surrendered.

3) That the use of the block wall as a party wall does not appear to be permitted under the new Building Code. If there is to be a registration of a party wall proof of this being permissable under the Building Code is required.

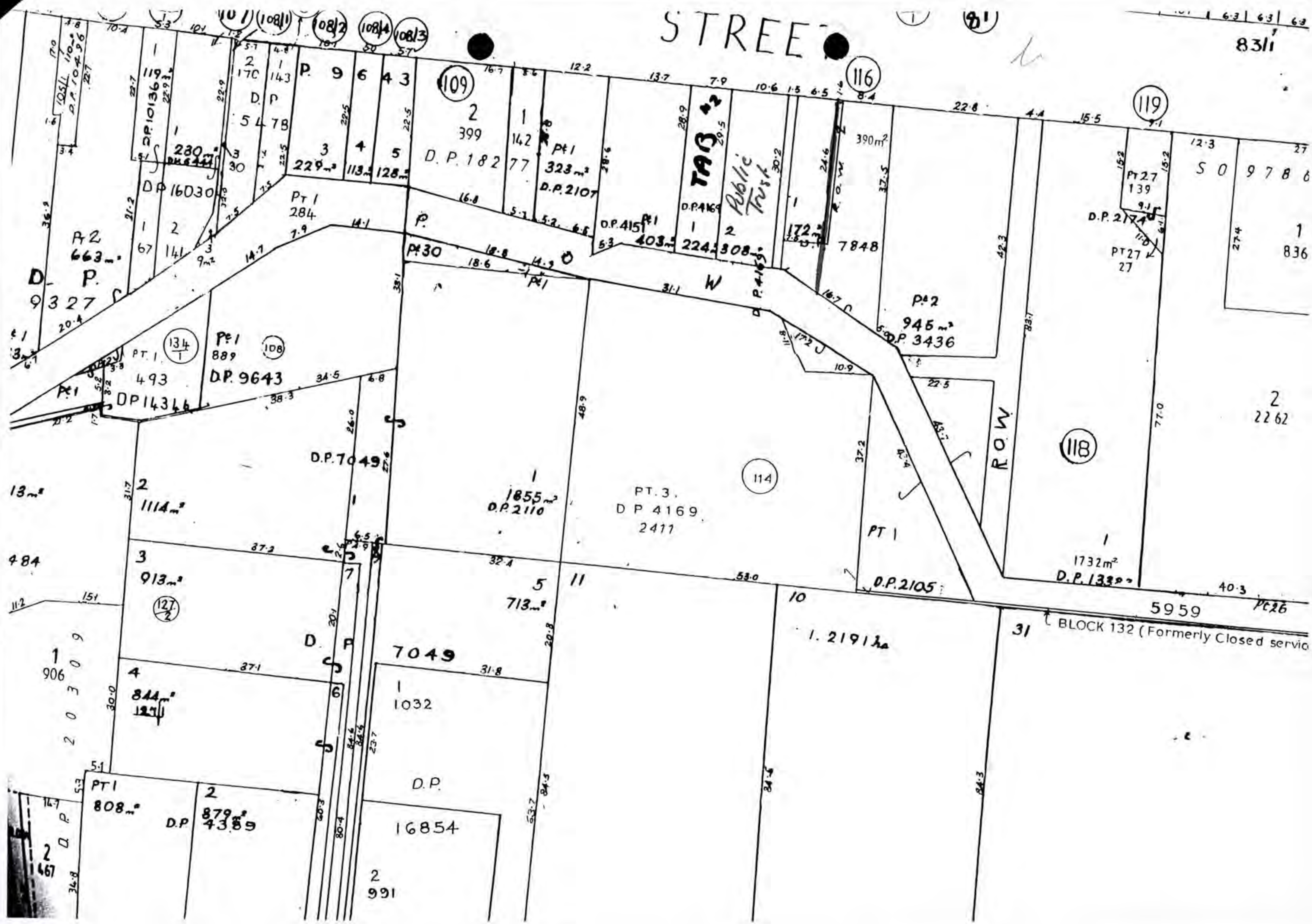
4) That the General Manager be authorised to issue a certificate pursuant to Section 224(c) of the Resource Management Act 1991 when conditions 1 to 3 have been satisfied.

5) That upon submission of the survey plan of subdivision, the same being in all respects in accordance with the scheme plan hereby approved or with any approved variations thereof be signed and sealed as evidence of the Council's approval pursuant to Section 223 of the Resource Management Act 1991.

In respect of condition 3) the Council Officers are unable to locate provisions within the Building Code for party walls. Clarification from the Building Industry Authority or the identification of this provision will safeguard redevelopment in the future.

Yours faithfully

Dorothea Millen (Mrs)
MANAGER
REGULATORY SERVICES



STREET
8311
P 9643
D.P 5478
D.P. 18277
D.P. 2107
DP 16030
DP 10136
D.P. 10496
D P 9327
TAB
Public Trust
D.P.4169
D.P.4151
ROW
S 09786
D.P. 2174
P 7848
D.P 3436
DP 14316
D.P. 9643
D.P. 7049
D.P. 2110
PT. 3. D P 4169 2411
D.P. 2105
D.P. 13399
5959
BLOCK 132 (Formerly Closed servic
1. 2191 ha
D P 7049
D.P. 16854
D.P 4389
D P 20309
109
116
119
114
118
108
127/2
134/1

Code Compliance Certificate BC220054

Section 95, Building Act 2004 **Form 7**

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street,
PO Box 127, Waipawa 4240
New Zealand

Phone: 06 857 8060
Fax: 06 857 7179

info@chbdc.govt.nz
www.chbdc.govt.nz

The Building	
Street address of building:	63 Ruataniwha Street, Waipukurau
Legal description of land where building is located:	Lot 2 DP 24265
Building name:	BNZ / Dominos
Location of building within site/block number:	N/A
Level/unit number	N/A
Valuation number:	1088011600
Description of work:	Internal fit out of commercial building
Current, lawfully established use:	Commercial
Year first constructed:	2022

The Owner				
Name of owner:	BNZ Branch Properties Limited			
Contact person:	Michael White			
Mailing address:	c/- Colliers International, PO Box 1631, Shortland Street, Auckland			
Phone numbers:	Landline: N/A		Mobile: 0274746280	
	Daytime: N/A		After hours: N/A	
Facsimile number	N/A		Email address:	michael_j_white@bnz.co.nz
Website:	N/A			
First point of contact for communications with the council/building consent authority:	Fluid Engineering Consultancy Ltd 0275585582 Kieran@fluidec.co.nz			

Building Work	
Building Consent Number: 220054	**Issued by:** Central Hawke's Bay District Council

Code Compliance

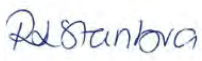
The Building Consent Authority named below is satisfied, on reasonable grounds, that—

- the building work complies with the building consent.
- the specified systems in the building are capable of performing to the performance standards set out in the building consent.

Attachment

Compliance Schedule

Rachael Stanbra
Building technician



On behalf of Central Hawke's Bay District Council
Date: 18 November 2022

fluid Engineering Consultancy

DOMINOS WAIPUKURAU

63 RUATANIWHA STREET
WAIPUKURAU

MECHANICAL

AHSCA

ace new zealand MEMBER

EQUIPMENT

ABBREVIATION / SYMBOL	DESCRIPTION
	EQUIPMENT
AC	INDOOR AC UNIT
AHU	AIR HANDLING UNIT
B	BOILER
CH	CHILLER
CT	COOLING TOWER
FCU	FAN COIL UNIT
HE	HEATING ELEMENT
OD	OUTDOOR AC UNIT
	FANS
EAF	EXTRACT AIR FAN
KEF	KITCHEN EXTRACT AIR FAN
KMF	KITCHEN MAKE UP AIR FAN
OAF	OUTSIDE AIR FAN
RAF	RETURN AIR FAN
SAF	SUPPLY AIR FAN
SEF	SMOKE EXTRACT AIR FAN
SPF	SPILL AIR FAN
TEF	TOILET EXTRACT FAN

DUCTWORK

ABBREVIATION / SYMBOL	DESCRIPTION
	DUCTWORK
OA	OUTDOOR AIR
SA	SUPPLY AIR
EAT	EXTRACT AIR - TOILET
EAG	EXTRACT AIR - GENERAL
EAK	EXTRACT AIR - KITCHEN
AP	ACCESS PANEL
01	PLAIN / UNLINED
02	25mm INTERNALLY LINED
03	40mm INTERNALLY LINED
04	50mm INTERNALLY LINED
05	65mm INTERNALLY LINED
06	25mmFG/30mm POLYESTER EXTERNALLY LINED
07	40mmFG/50mm POLYESTER EXTERNALLY LINED
08	50mmFG/65mm POLYESTER EXTERNALLY LINED
09	65mmFG/80mm POLYESTER EXTERNALLY LINED
10	-
11	EXTERNAL FIRE PROOFING
	CHANGE OF DUCT SIZE
BL	BOTTOM OF DUCT IS LEVEL
EC	ECCENTRIC (SHOWN IF AMBIGUOUS)
TL	TOP OF DUCT IS LEVEL
	DAMPERS
BD	BUTTERFLY DAMPER (SHOWN IF AMBIGUOUS)
BDD	BACK DRAFT DAMPER
FD	FIRE DAMPER
FSD	FIRE AND SMOKE DAMPER
M	MOTORISED DAMPER
OBD	OPPOSED BLADE DAMPER
SMD	SMOKE DAMPER
VCD	VOLUME CONTROL DAMPER (SHOWN IF AMBIGUOUS)
SIZExSIZE	RECTANGULAR DUCT (FIRST DIMENSION IS SIDE SEEN IN VIEW DRAWN, SIZE QUOTED IS AIRSTREAM SIZE)
⌀SIZE	CIRCULAR DUCT (SIZE QUOTED IS AIRSTREAM SIZE)
BOD 3500	DENOTES BOTTOM OF DUCTWORK AFFL (DOES NOT INCLUDE FLANGES, STIFFENERS, INSULATION, ETC.)
SU	DUCT SETS UP IN DIRECTION OF FLOW
SD	DUCT SETS DOWN IN DIRECTION OF FLOW
SIZE SIZE	CHANGE OF SIZE (XX - REFER TO CHANGE OF DUCT SIZE ABBREVIATIONS)
SIZE SIZE	CHANGE OF SIZE - RECTANGULAR, CONCENTRIC
SIZE SIZE	CHANGE OF SIZE - CIRCULAR, CONCENTRIC
SIZE SIZE	RECTANGULAR TO CIRCULAR TRANSITION, CONCENTRIC
AH	DUCT ACCESS HATCH
AH	DUCT ACCESS HATCH
AH	DUCT ACCESS HATCH
	SINGLE BLADE DAMPER
	MULTI-BLADE DAMPER (PARALLEL BLADES)
OBD	MULTI-BLADE DAMPER (OPPOSED BLADES)
BDD	MULTI-BLADE DAMPER (BACK-DRAFT)
FD	FIRE DAMPER
	FLEXIBLE DUCT
	SILENCER OR SOUND ATTENUATOR

GENERAL

DRAWING SHEET NUMBERING CONVENTION

EXAMPLE: FEC-DWG-MEC-A-02-GL-08

TYPE:
DWG - DRAWING
MOD - MODEL
IMG - IMAGES
DOC - DOCUMENT

AREA:
P - THE PA
A - BUILDING A
C - CONNECTOR

LEVEL:
GL - GROUND LEVEL
L1 - LEVEL 1
L2 - LEVEL 2

FEC - DWG - MEC - A - 02 - GL - 08

COMPANY:
FEC - FLUID ENGINEERING CONSULTANCY

DISCIPLINE:
MEC - MECHANICAL
HYD - HYDRAULIC
ELE - ELECTRICAL
FIR - FIRE

DRAWING TYPE:
00 - GENERAL & DETAILS
01 - SCHEMATICS
02 - DUCTWORK
03 - PIPEWORK

ZONE

ABBREVIATION / SYMBOL	DESCRIPTION
AFFL	ABOVE FINISHED FLOOR LEVEL
AH	ACCESS HATCH
c/w	COMPLETE WITH
f	FLOW
FA	FROM ABOVE
FA/TB	FROM ABOVE TO BELOW
FB	FROM BELOW
FB/TA	FROM BELOW TO ABOVE
HL	HIGH LEVEL
HP	HIGH PRESSURE
IL	INVERT LEVEL
LL	LOW LEVEL
LP	LOW PRESSURE
r	RETURN
RL	RELATIVE LEVEL
SD	SET DOWN
SU	SET UP
TA	TO ABOVE
TB	TO BELOW
UNO	UNLESS NOTED OTHERWISE
3 / A-02-GL-08	SECTION INDICATOR DETAIL NUMBER & SHEET NUMBER
	LINEAR DIFFUSER
	LOUVRE
	DOOR GRILLE
	ACCESS HATCH
	SWIRL DIFFUSER
	EXTRACT GRILLE
	RETURN AIR GRILLE
	SUPPLY AIR GRILLE

AC EQUIPMENT SCHEDULE

REF.I.D.	DESCRIPTION	MODEL	MANUFACTURER	COOLING CAPACITY	HEATING CAPACITY	ELECTRICAL LOAD	WEIGHT	COMMENTS
AC1	FAN COIL UNIT	PEAD-RP71JAA	MITSUBISHI ELECTRIC	7100 W	8000 W	1.17 A, 230V, 1PH / 50 Hz	29.00 kg	EXISTING UNIT
AC3	FAN COIL UNIT	PEAD-RP71JAA	MITSUBISHI ELECTRIC	7100 W	8000 W	1.17 A, 230V, 1PH / 50 Hz	29.00 kg	EXISTING UNIT
AC4	FAN COIL UNIT	PEAD-RP71JAA	MITSUBISHI ELECTRIC	7100 W	8000 W	1.17 A, 230V, 1PH / 50 Hz	29.00 kg	EXISTING UNIT
AC5	CASSETTE, 4 WAY	PLA-M100EA	MITSUBISHI ELECTRIC	10000 W	11200 W	1.17 A, 230V, 1PH / 50 Hz	24.00 kg	NEW UNIT
AC6	CASSETTE, 4 WAY	PLA-M100EA	MITSUBISHI ELECTRIC	10000 W	11200 W	1.17 A, 230V, 1PH / 50 Hz	24.00 kg	NEW UNIT
OD-AC1	SPLIT SYSTEM OUTDOOR UNIT	SUZ-KA60VA3.TH-A	MITSUBISHI ELECTRIC			230V, 1PH / 50 Hz	53.00 kg	EXISTING UNIT
OD-AC3	SPLIT SYSTEM OUTDOOR UNIT	SUZ-KA60VA3.TH-A	MITSUBISHI ELECTRIC			230V, 1PH / 50 Hz	53.00 kg	EXISTING UNIT
OD-AC4	SPLIT SYSTEM OUTDOOR UNIT	SUZ-KA60VA3.TH-A	MITSUBISHI ELECTRIC			230V, 1PH / 50 Hz	53.00 kg	EXISTING UNIT
OD-AC5	SPLIT SYSTEM OUTDOOR UNIT	PLA-M100EA-A	MITSUBISHI ELECTRIC			230V, 1PH / 50 Hz	113.00 kg	NEW UNIT
OD-AC6	SPLIT SYSTEM OUTDOOR UNIT	PLA-M100EA-A	MITSUBISHI ELECTRIC			230V, 1PH / 50 Hz	113.00 kg	NEW UNIT

AIR TERMINAL SCHEDULE

REF.I.D.	DESCRIPTION	MANUFACTURER	MODEL	SIZE	COMMENTS
DG1	DOOR GRILLE	HOLYOAKE	DG-52-BFL-400x200	400X200	EXISTING GRILLE
E1	EXHAUST AIR DIFFUSER	HOLYOAKE	EC-125 200x200	200X200	EXISTING GRILLE
OL1	EXHAUST AIR LOUVRE	HOLYOAKE	OHL-F-D-102 600x400-B-M	600X400	EXISTING GRILLE
OL2	EXHAUST AIR LOUVRE	HOLYOAKE	OHL-F-D-102 300x400-B-M	300X400	EXISTING GRILLE
R1	RETURN AIR DIFFUSER	HOLYOAKE	EC-125 400x400	400X400	EXISTING GRILLE
R2	RETURN AIR DIFFUSER	HOLYOAKE	EC-125 500x500	500X500	NEW GRILLE
S1	SUPPLY AIR DIFFUSER	KRANTZ	RA-N3QII-DN350/0-395x395-FI-4	395X395	EXISTING GRILLE
S2	SUPPLY AIR DIFFUSER	KRANTZ	RA-N3R-DN500/0-FI-4	500X500	EXISTING GRILLE
S3	SUPPLY AIR DIFFUSER	KRANTZ	RA-N3QII-DN350/3-395x395-FI-4	395X395	EXISTING GRILLE

FANS SCHEDULE

REF.I.D.	DESCRIPTION	MODEL	MANUFACTURER	DUTY	COMMENTS
EF1	EXHASUT AIR FAN	JCE202-3	FANTECH	70.0 L/s @ 100 Pa	EXISTING FAN
EF2	EXHASUT AIR FAN	TD-500/150ECO	FANTECH	120.0 L/s @ 100 Pa	EXISTING FAN
EF3	EXHASUT AIR FAN	MCV-450-4EC	CFM SYSTEMS	900 L/s @180Pa	NEW FAN
SF1	SUPPLY AIR FAN	TD-2000/315SIL	FANTECH	250.0 L/s @200pa	EXISTING FAN
SF2	SUPPLY AIR FAN	MUCR450-4EC	CFM SYSTEMS	750.0 L/s @115 pa	NEW FAN

SHEET LIST MECHANICAL

Sheet Number	Sheet Name	Current Revision
M.000	TITLE PAGE	
M.001	LEGENDS & SCHEDULES	A
M.101	EXISTING HVAC LAYOUT	
M.102	GROUND FLOOR	A
M.103	MECHANICAL ROOF PLAN	A
M.104	MECHANICAL 3D VIEWS	A

1. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE MECHANICAL SERVICES SPECIFICATION.
2. ALL DUCT SIZES ARE CLEAR INTERNAL AIRWAY DIMENSIONS.
3. ALL DIMENSIONS ARE IN MILLIMETERS.
4. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL NOT EXCEED 3.0 METRES. A SECTION OF SOLID CIRCULAR DUCT SHALL BE INSTALLED RIGIDLY FIXED TO MAIN SUPPLY AIR BRANCH WHERE PRACTICAL.
5. ALL BLANKED TERMINATION POINTS SHALL BE LABELLED FOR FUTURE IDENTIFICATION.
6. PRIOR TO TENDER SUBMISSION CONTRACTOR TO INSPECT AND MAKE THEMSELVES FAMILIAR WITH THE SITE AND TO MAKE ALLOWANCE FOR ALTERATIONS AS REQUIRED
7. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL SERVICES CONTRACTOR TO LOCATE AND COORDINATE ALL ACCESS SPACE REQUIRED FOR SERVICING, BALANCING AND MAINTENANCE OF ALL EQUIPMENT PER THE QUALITY REQUIREMENTS OF THE SPECIFICATION.
8. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE MECHANICAL SERVICES SPECIFICATION.
9. PENETRATIONS TO BE SEALED TO MAINTAIN THE ACOUSTIC, FIRE, WEATHER PROTECTION OR OTHER RATING OF THE BARRIER.
10. STRUCTURAL PENETRATIONS TO BE DUCT SIZE PLUS 50MM EACH SIDE (DUCT SIZE PLUS 100MM)

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BCBC 220054
12/05/2022
Duncan Renner
Page 2 of 6
Central Hawkes Bay District Council

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mark@fluidec.co.nz

CLIENT: Domino's

ARCHITECT: SACH

ADDRESS: 63 RUATANIWHA STREET WAIPUKURAU

PROJECT NAME: DOMINOS WAIPUKURAU

DISCIPLINE: MECHANICAL

LEGENDS & SCHEDULES

FOR INFORMATION

DATE 16.02.2022	SCALE 1 : 5
SHEET NO M.001	HALF SCALE @ A3
REV A	JOB FHD826
DRAWN S.ABDURAHIMAN	
DESIGN S.ABDURAHIMAN	
CHECKED K.BHOLA	
FILE	

REVISIONS

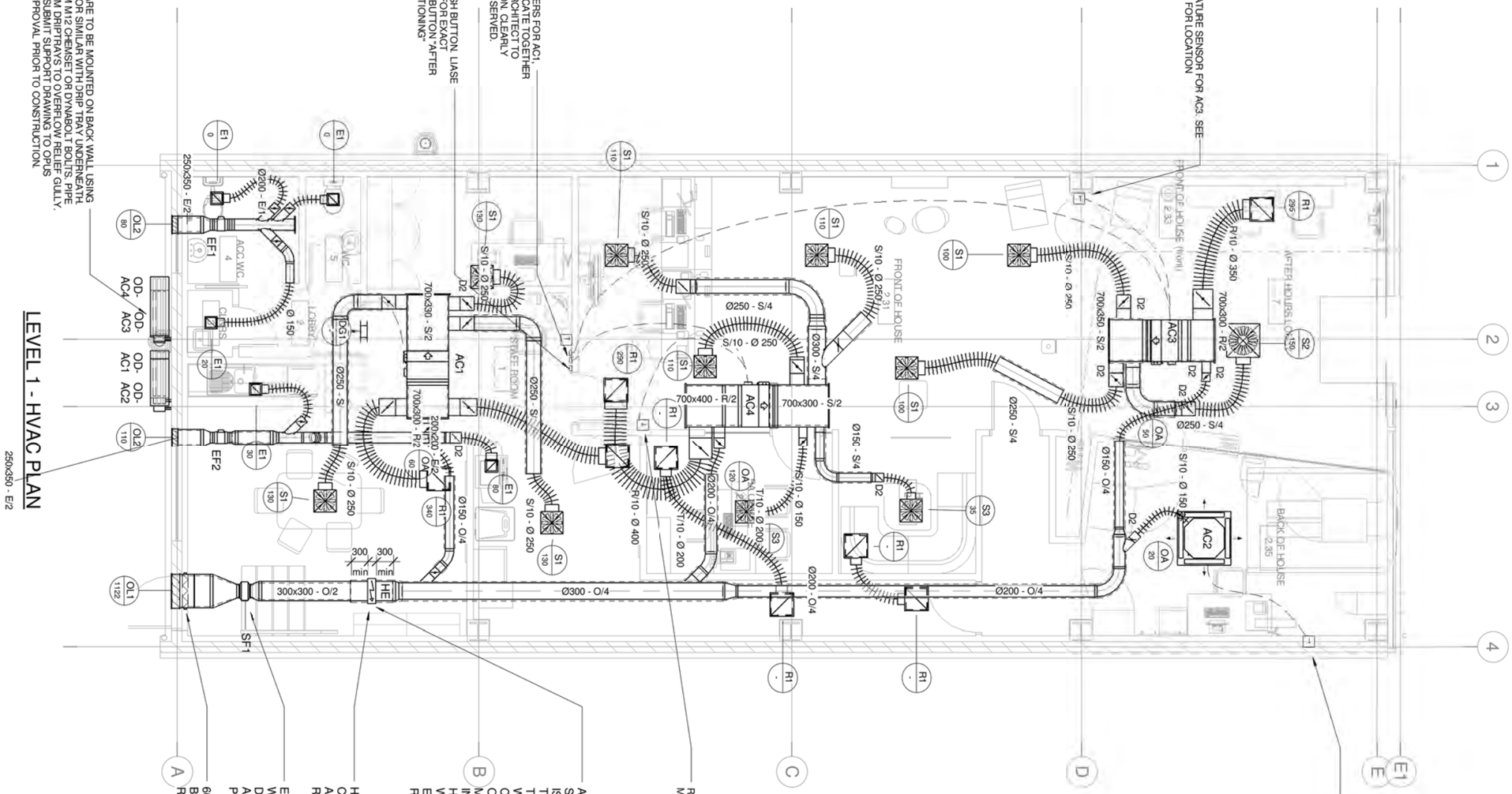
Rev	Description	Date
A	FOR INFORMATION	16.02.2022

This drawing is based on Architectural plans received by FLUID Engineering Consultancy Ltd:

The Contractor MUST verify all dimensions onsite prior to the commencement of any work.

DUCTWORK KEY

FRESH AIR SUPPLY	
RETURN AIR	
EXHAUST AIR	



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CLIENT

ARCHITECT

ADDRESS
63 RUATANIWHA STREET
WAIPUKURAU

PROJECT NAME
DOMINOS WAIPUKURAU

DISCIPLINE
MECHANICAL

EXISTING HVAC LAYOUT

FOR INFORMATION

DATE	SCALE
SHEET NO M.101	HALF SCALE @ A3
REV	JOB FHD826
DRAWN S.ABDURAHIMAN	
DESIGN S.ABDURAHIMAN	
CHECKED K.BHOLA	
FILE	

REVISIONS

Rev	Description	Date

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12/05/2022
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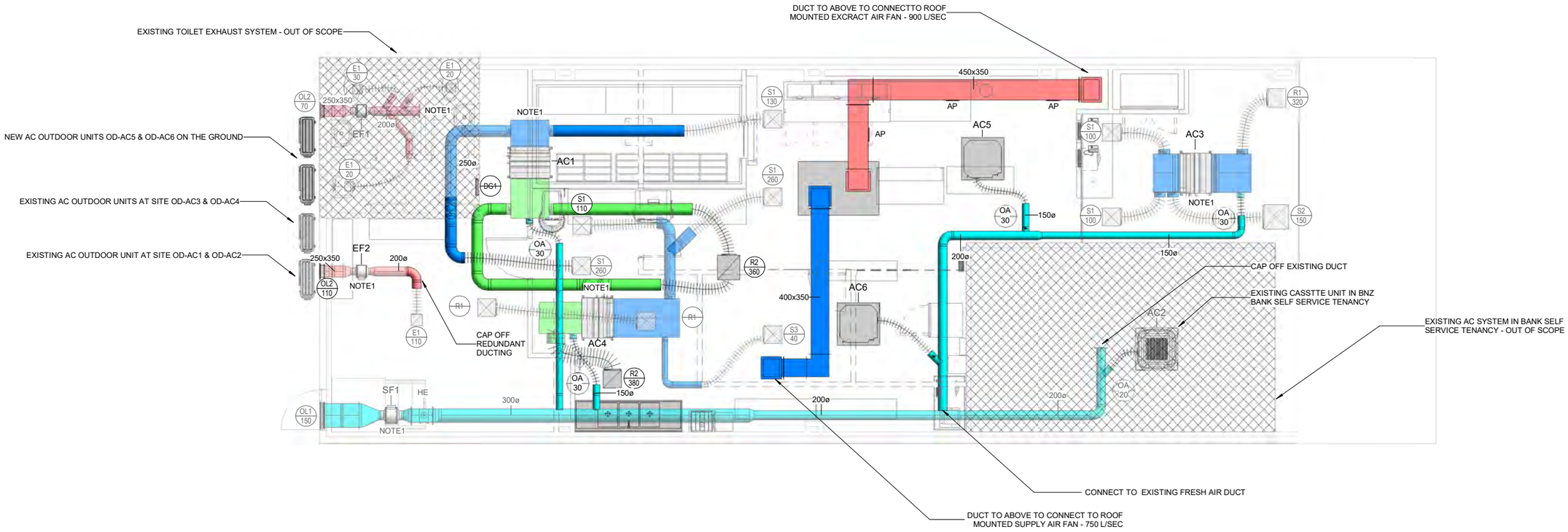
District Council



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WAIPUKURAU

PROJECT NAME

DOMINOS WAIPUKURAU

DISCIPLINE

MECHANICAL

GROUND FLOOR

FOR INFORMATION

DATE 16.02.2022	SCALE 1 : 50
SHEET NO M.102	HALF SCALE @ A3
REV A	JOB FHD826
DRAWN	S.ABDURAHIMAN
DESIGN	S.ABDURAHIMAN
CHECKED	K.BHOLA
FILE	

REVISIONS

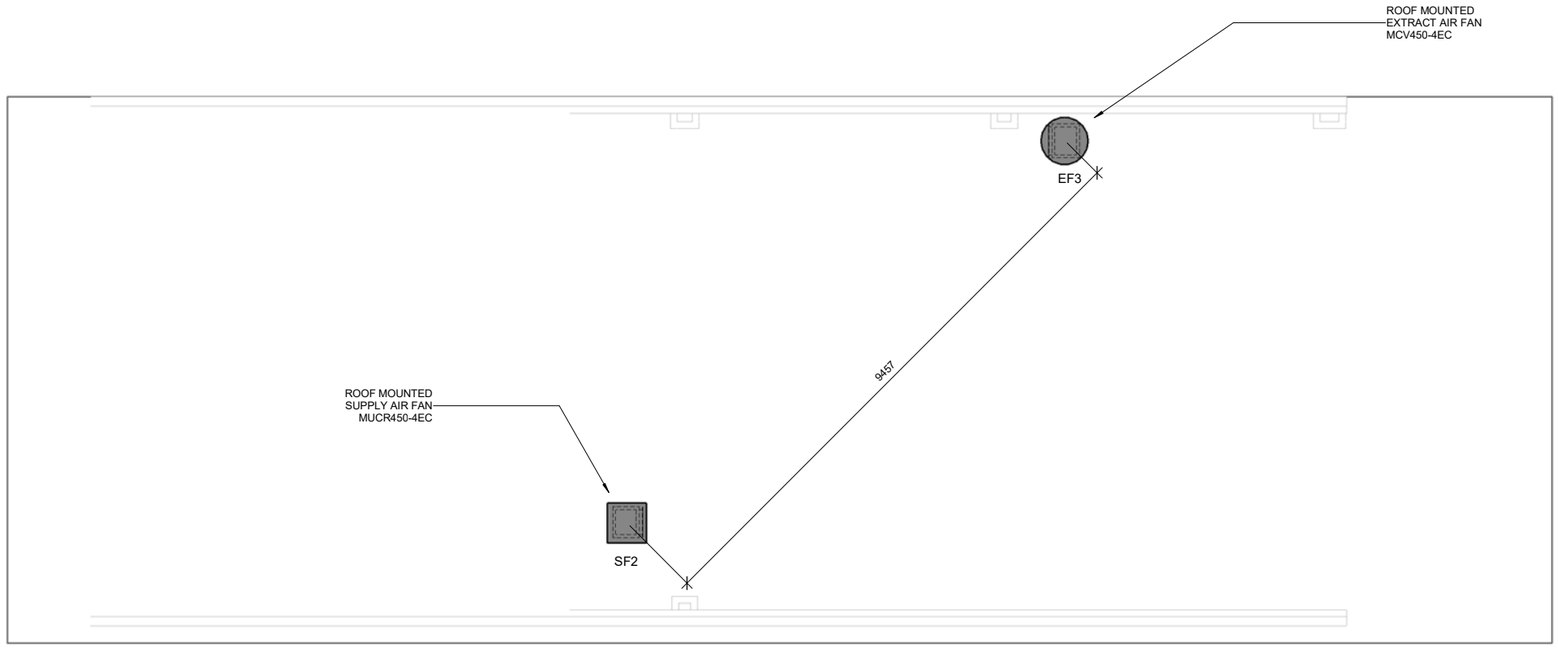
Rev	Description	Date
A	FOR INFORMATION	16.02.2022

DUCT TYPE KEY

FRESH AIR SUPPLY	
RETURN AIR	
EXHAUST AIR	
A/C AIR SUPPLY	

NOTES

1. CONTRACTOR TO ALLOW TO INVESTIGATE THE EXISTING AC'S AND FANS ON SITE AND REINSTATE IF IN GOOD CONDITION.
2. ALL NEW AC UNITS SHOULD BE INSTALLED WITH WALL MOUNTED TEMPERATURE SENSOR CONTROLLED BY EXISTING CENTRAL CONTROLLER.
3. ALL THE EXISTING DUCTS AND GRILLES TO BE REUSED IF IN GOOD CONDITION.
4. NEW CASSETTE AC'S OUTDOOR UNITS ON GROUND NEAR THE EXISTING OUTDOOR UNITS.
5. REMOVE REDUNDANT TRANSFER AIR GRILLES AND PUT NEW CEILING TILES.
6. CAP OFF UNUSED PLENUM SPIGOTS AND DUCTS.



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63 RUATANIWHA STREET
WAIPUKURAU

PROJECT NAME

DOMINOS WAIPUKURAU

DISCIPLINE

MECHANICAL

MECHANICAL ROOF PLAN

FOR INFORMATION

DATE	SCALE
16.02.2022	1 : 50
SHEET NO M.103	HALF SCALE @ A3
REV A	JOB FHD826

DRAWN S.ABDURAHIMAN

DESIGN S.ABDURAHIMAN

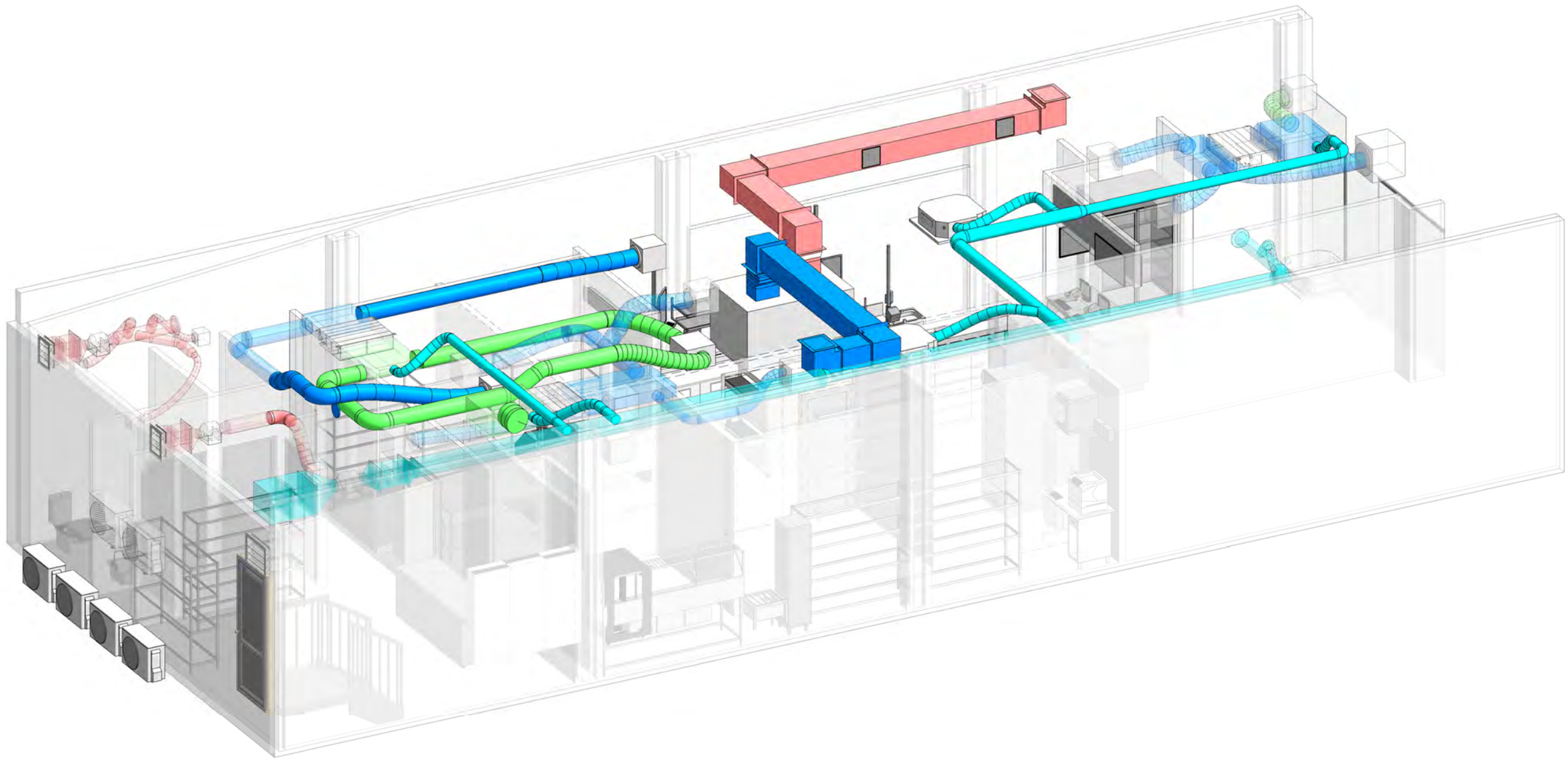
CHECKED K.BHOLA

FILE

REVISIONS

Rev	Description	Date
A	FOR INFORMATION	16.02.2022

This drawing is based on Architectural plans received by FLUID Engineering Consultancy Ltd:
The Contractor MUST verify all dimensions onsite prior to the commencement of any work.



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ARCHITECT

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63 RUATANIWHA STREET
WAIPUKURAU

PROJECT NAME

DOMINOS WAIPUKURAU

DISCIPLINE

MECHANICAL

MECHANICAL 3D VIEWS

FOR INFORMATION

DATE 16.02.2022	SCALE
SHEET NO M.104	HALF SCALE @ A3
REV A	JOB FHD826
DRAWN	S.ABDURAHIMAN
DESIGN	S.ABDURAHIMAN
CHECKED	K.BHOLA
FILE	

REVISIONS

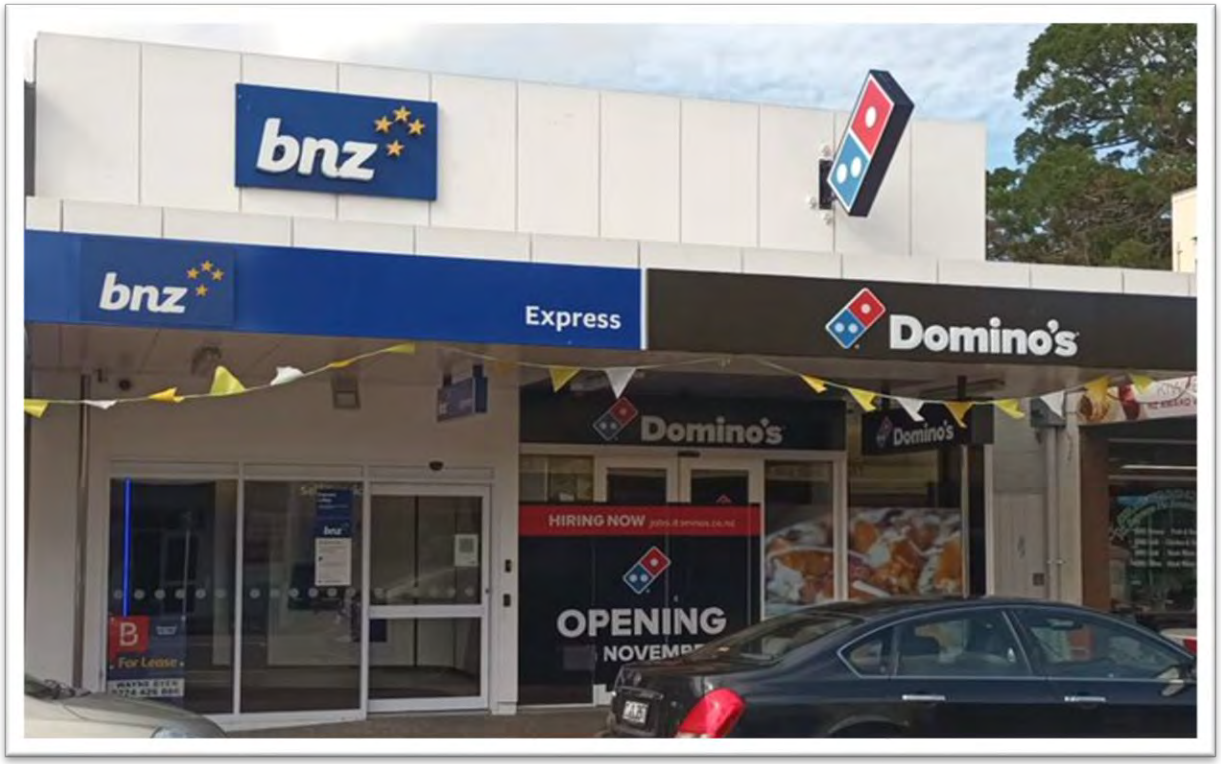
Rev	Description	Date
A	FOR INFORMATION	16.02.2022

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

COMPLIANCE SCHEDULE

Issued under s102 of the Building Act 2004

Compliance Schedule Number	CS0065	Anniversary Date	20 May



CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Contents

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

General Building Information

Street address of building	63 Ruataniwha Street, Waipukurau
Legal description of land	LOT 2 DP 24265
Building name	BNZ Bank / Domino's Pizza
Location of building within site/block number	
Level or unit numbers	Single level building with two tenancies
Year of first construction	2015 BC150036
Intended life of the building	Indefinite
Valuation number	1088011600
Risk group	CA
Compliance schedule is kept at:	Central Hawkes Bay District Council, 28-32 Ruataniwha Street, Waipukurau
Inspections records are kept at:	63 Ruataniwha Street, Waipukurau

Building use & occupancy (current lawfully established use)

Level	Classified use from New Zealand Building Regulations 1992 Schedule 1 Clause A1 (plus description)	Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005 Schedule 2 – Use of all or parts of buildings	Occupancy load
Whole building	Commercial – retail and banking	CL	19
	❖ *Total occupant load based on OBJECTIVE fire safety analysis reference*	**Total occupant load**	**19**

The owner			
Name of owner	BNZ Branch Properties Ltd		
Contact person	Michael White		
Mailing address	Private Bag 92209, Victoria Street West, Auckland 1142		
Street address/registered office	Level 9, 80 Queen St, Auckland 1010		
Phone number	(09) 9280515	Mobile number	0274746280
Email	Michael_j_white@bnz.co.nz	Website	https://www.bnz.co.nz/

Version control		
Version #	Notes or changes	Date
Version 1	Amended Compliance Schedule Issued (related to BC220054) ✓ Changed building name from BNZ Bank to BNZ Bank / Domino's Pizza ✓ Added SS7 automatic backflow preventer & performance standard ✓ Removed SS15-3 fire separations as the building is a single firecell	18 November 2022

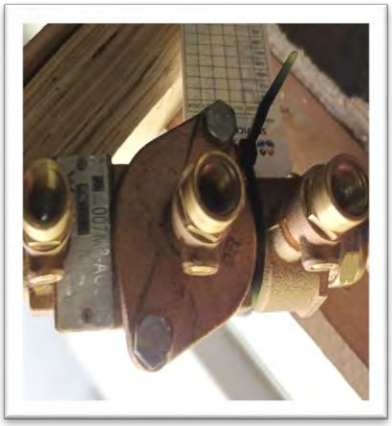
CENTRAL HAWKE'S BAY DISTRICT COUNCIL

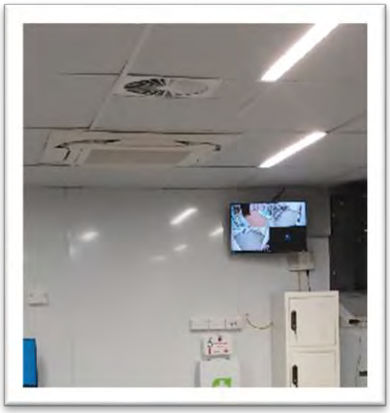
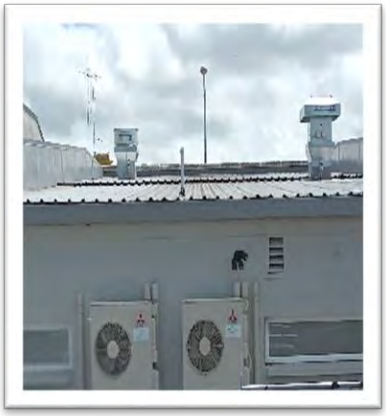
SS 3/1 Automatic doors			
Description (incl type) & Location/s	➢ Automatic sliding door at the front entry BNZ bank ATM foyer ➢ Automatic sliding door at the front entry Domino's Pizza		
Specified system photos/s	**BNZ Bank** 		**Domino's Pizza** 
Installation date	May 2016		
Make & Model	SENSORMATIC belt-driven LS200		
Performance standard	NZS4239 1993		
Inspection procedures	➢ Daily and Monthly inspections- doors are not locked, barred, or blocked ➢ Annual inspection- operation of fail-safe devices in power outage situations, operation of manual release provisions, connection to the building's emergency warning system		
Inspection frequencies	Daily (When in use)		Annual
Inspection personnel	Owner or agent		IQP
Maintenance procedures	NZS4239 1993 - Appendix A		
Reporting procedures	The building owner must obtain Annual written reports from any IQP or other person who carried out one or more inspections &/or maintenance procedures. Reports must at a minimum: I. Record any inspection, test, repair, or maintenance carried out II. Record any faults found or maintenance required & the remedy applied III. Include the date the work was carried out IV. Include the name of the person who performed the work		
Signage	Signage includes: ➢ Signs for the manual exit button & high-level mode switches Note: all signage related to SS3/1 to be signed off by the IQP for SS14/2		
Comment/notes	These automatic doors are designated final exits		

SS 3/2 Access controlled doors		
Description (incl type) & Location/s	Automatic sliding doors in BNZ & BNZ bank, internal doors in BNZ bank	
Specified system photos/s	**BNZ Bank** 	**Domino's Pizza**  
Installation date	May 2016	
Make & Model	Unknown	
Performance standard	AS 5007:2007 powered doors for pedestrian access & egress Section 5	
Inspection procedures	➢ **Daily inspections**- doors are not locked, barred, or blocked.	➢ **Six-Monthly inspections**- operation of fail-safe devices in power outage situations, operation of manual release provisions, connection to the building's emergency warning system, emergency power supply required to operate in the event of a power failure.
Inspection frequencies	Daily (When in use)	Six-Monthly
Inspection personnel	Owner or agent	IQP
Maintenance procedures	AS 5007:2007 Powered doors for pedestrian access & egress refer to Appendix E, Automatic powered doors inspection & maintenance Planned preventative maintenance and responsive maintenance should be carried out in accordance with the nominated performance and inspection standard or document, and to ensure safe and suitable system operation. Depending on size and type, back-up rechargeable batteries should be replaced approximately every two years or when found to be inoperable.	
System interfacing	Not Applicable	
Reporting procedures	The building owner must obtain Annual written reports from any IQP or other person who carried out one or more inspections &/or maintenance procedures. Reports must at a minimum:	

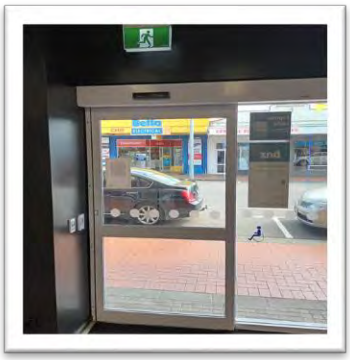
	I. Record any inspection, test, repair, or maintenance carried out II. Record any faults found or maintenance required & the remedy applied III. Include the date the work was carried out IV. Include the name of the person who performed the work
Signage	Signage includes: ➢ Signs for the manual exit button & high-level mode switch Note: all signage related to SS3/1 to be signed off by the IQP for SS14/2

SS 4 Emergency lighting Systems		
Description (incl type) & Location/s	Self-contained emergency lights located throughout the building as per Appendix C	
Specified system photos/s		
Installation date	➢ BNZ Bank – 2015 ➢ Domino's Pizza – 2022 (reinstall existing fittings	
Make & Model	EKTOR	
Performance standard	ASNZS2293.1:2005 Emergency evacuation lighting for buildings Part 1: System design, installation, and operation F6/AS1 Amendment 14th February 2014 F8/AS1 Amendment 14th February 2014	
Inspection procedures	ASNZS2293:2.1995 Emergency escape lighting and exit signs for buildings -Inspection & Maintenance	
Inspection frequencies	Six-Monthly	Annually
Inspection personnel	IQP	IQP
Maintenance procedures	ASNZS2293:2.1995 Emergency escape lighting and exit signs for buildings Part 2 Inspection & Testing	
Reporting procedures	The building owner must obtain Annual written reports from any IQP or other person who carried out one or more inspections &/or maintenance procedures. Reports must at a minimum: I. Record any inspection, test, repair, or maintenance carried out II. Record any faults found or maintenance required & the remedy applied III. Include the date the work was carried out IV. Include the name of the person who performed the work	
Signage	Signage includes: ➢ Manual/automatic test switch located in switchboard Note: all signage related to SS4 to be signed of by the IQP for Ss14/2	
Comment/notes	Note any evacuation signage associated with emergency lighting (e.g., pictograms, directional arrows, exit signs) is covered by SS15/4 of this compliance schedule	

SS 7 Automatic Back-Flow Preventers		
Description (incl type) & Location/s	Double check valve located in ceiling above ablution block	
Specified system photos/s		
Installation date	2022	
Make & Model	WATTS 007M3-AUS DC (serial number A17991)	
Performance standard	➢ AS/NZS 2845.1:2020- Backflow prevention Devices Part 1 – Materials, design, and performance requirements Section 10Amendment 1 ➢ New Zealand Building Code Clause G12/AS1 Amendment 12 Part 7.5.1 (a), (b)	
Inspection procedures	Automatic back-flow preventers require regular testing to ensure they provide protection to the drinking water supply. Inspection procedures are subject to the type of installation to AS/NZS 2845.3: 2020– Backflow prevention Devices Part 3 Field testing and maintenance of testable devices	
Inspection frequencies	Annual	
Inspection personnel	IQP	
Maintenance procedures	➢ AS/NZS 2845.3: 2020 – Backflow prevention Devices Part 3 Field testing and maintenance of testable devices ➢ New Zealand Building Code Clause G12/AS1 Amendment 12	
Reporting procedures	The building owner must obtain Annual written reports from any IQP or other person who carried out one or more inspections &/or maintenance procedures. Reports must at a minimum: I. Record any inspection, test, repair, or maintenance carried out II. Record any faults found or maintenance required & the remedy applied III. Include the date the work was carried out IV. Include the name of the person who performed the work	
Signage	Signage includes: ➢ Manufacturer's identification plate & Inspection record attached as per photo	

SS 9 Mechanical Ventilation or Air Conditioning		
Description (incl type) & Location/S	➢ Central ducted HVAC system in both tenancies as per Appendix A ➢ HVAC kitchen extraction/supply unit in Domino's kitchen as per Appendix A	
Specified system photos/s	   	
Installation date	2022	
Make & Model	➢ Roof centrifugal supply air fan – AOM MUCR450 ➢ Kitchen exhaust hood – AOM Series HC ➢ HVAC systems – MITSUBUSHI	
Performance standard	➢ **Central ducted HVAC system** - AS1668:2 2015, AS/NZS3666.2 2011, NZS4303:1990 (ventilation for acceptable indoor quality) ➢ **Kitchen extraction/supply unit** - AS1668:2 2015, AS/NZS3666.2 2011, NZS4303:1990 (ventilation for acceptable indoor quality) and Seismic Restraints as per NZS 4219 2009	
Inspection procedures	➢ **Central ducted HVAC system** – ASNZS 1668:2:2012 General ventilation & extract design ➢ **Kitchen extraction/supply unit** – AS 3666.2:2002 Air-handling and water systems of buildings – Microbial control – Operation and maintenance	
Inspection frequencies	Three-Monthly	Annual
Inspection personnel	IQP	IQP
Maintenance procedures	➢ **Central ducted HVAC system** – ASNZS 1668:2:2012 General ventilation & extract design ➢ **Kitchen extraction/supply unit** – AS 3666.2:2002 Air-handling and water systems of buildings – Microbial control – Operation and maintenance	
Reporting procedures	The building owner must obtain Annual written reports from any IQP or other person who carried out one or more inspections &/or maintenance procedures. Reports must at a minimum: I. Record any inspection, test, repair, or maintenance carried out II. Record any faults found or maintenance required & the remedy applied	

	III. Include the date the work was carried out		
SS 14/2 Signs			
Description (incl type) & Location/s	➢ Automatic sliding doors operation signage ➢ Access controlled doors operation signage ➢ Emergency light test facility		
Specified system photos/s			
Installation date	2022		
Make & Model	➢ Automatic sliding doors – SENSORMATIC ➢ Access controlled doors – unknown ➢ Emergency light test facility – E1ZNT		
Performance standard	➢ Automatic sliding doors – AS5007:2007 powered doors for pedestrian access & egress section 5 refers ➢ Access controlled doors – Compliance Schedule handbook – SS 3/2 Access-controlled doors ➢ Emergency light test facility – ASNZS2293.1:2005 Emergency evacuation lighting for buildings Part 1: System design, installation, and operation		
Inspection procedures	➢ Automatic sliding doors – AS5007:2007 powered doors for pedestrian access & egress section 5 refers ➢ Access controlled doors – Compliance Schedule handbook – SS 3/2 Access-controlled doors ➢ Emergency light test facility – ASNZS2293:2.1995 Emergency escape lighting and exit signs for buildings Part 2 Inspection & Testing		
Inspection frequencies	Monthly (illuminated exit signs)	Six-Monthly (automatic doors)	Annual
Inspection personnel	Owner/IQP	IQP	IQP
Maintenance procedures	Planned preventative maintenance and responsive maintenance should be carried out in accordance with the nominated performance and inspection standard or document, and to ensure safe and suitable system operation.		
Reporting procedures	The building owner must obtain Annual written reports from any IQP or other person who carried out one or more inspections &/or maintenance procedures. Reports must at a minimum: I. Record any inspection, test, repair, or maintenance carried out II. Record any faults found or maintenance required & the remedy applied III. Include the date the work was carried out IV. Include the name of the person who performed the work		

SS 15/2 Final Exits			
Description (incl type) & Location/s	➢ Aluminium glazed automatic sliding doors at the front of the building ➢ Single glazed aluminium doors at the rear of the building		
Specified system photos/s	**BNZ Bank** 	**Domino's Pizza**  	
Installation date	➢ BNZ Bank – 2015 ➢ Domino's Pizza automatic sliding door - 2022		
Make & Model	Unknown		
Performance standard	➢ New Zealand Building Code Clause C/AS2 Protection from fire amendment 2 5 November 2020 Part 3.12 Final exits ➢ New Zealand Building Code Clause D1 (Section 112 Building Act 2004 – as nearly as is practicable)		
Inspection procedures	Final exits are to be inspected to ensure they can be opened & are not locked, barred, or blocked (including the egress route). Door locking devices are to be clearly visible, easily operated without a key or other security device & do not prevent or override the direct operation of panic bolts.		
Inspection frequencies	Daily (when in use)	Monthly	Annual
Inspection personnel	Owner/agent	Owner/IQP	IQP
Maintenance procedures	Planned preventative maintenance and responsive maintenance should be carried out in accordance with the nominated performance and inspection standard or document, and to ensure safe and suitable system operation.		
System interfacing	Not applicable		
Reporting procedures	The building owner must obtain Annual written reports from any IQP or other person who carried out one or more inspections &/or maintenance procedures. Reports must at a minimum: I. Record any inspection, test, repair, or maintenance carried out II. Record any faults found or maintenance required & the remedy applied III. Include the date the work was carried out IV. Include the name of the person who performed the work		
Signage	Illuminated exit signs installed above all final exit doors		

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

SS 15/4 Signs For Communicating Information Intended To Facilitate Evacuation		
Description (incl type) & Location/s	Self-contained illuminated exit signs installed in both BNZ Bank & Domino's Pizza final exits per Appendix E	
Specified system photos/s		
Installation date	2015	
Make & Model	EKTOR LED EXIT	
Performance standard	F8/AS1 Amendment 3, 14th February 2014	
Inspection procedures	**Monthly inspection** Illuminated signs shall be inspected to ensure they are: • Of the correct type • Present & in the right location • Legible • Illuminated **Annual inspection** • Of the correct type • Present & in the right locations • Legible • Signs required to be illuminated shall be tested to ensure they remain illuminated in the event of a failure of the main lighting supply, for the same duration as required by New ZBC F6 (visibility in escape routes)	
Inspection frequencies	Monthly	Annual
Inspection personnel	OWNER/IQP	IQP
Maintenance procedures	F8/AS1 (Amendment 3, 14 February 2014)	
Reporting procedures	The building owner must obtain Annual written reports from any IQP or other person who carried out one or more inspections &/or maintenance procedures. Reports must at a minimum: I. Record any inspection, test, repair, or maintenance carried out II. Record any faults found or maintenance required & the remedy applied III. Include the date the work was carried out IV. Include the name of the person who performed the work	
Signage	As above	
Comment/notes	Test facility in switchboard kitchen	

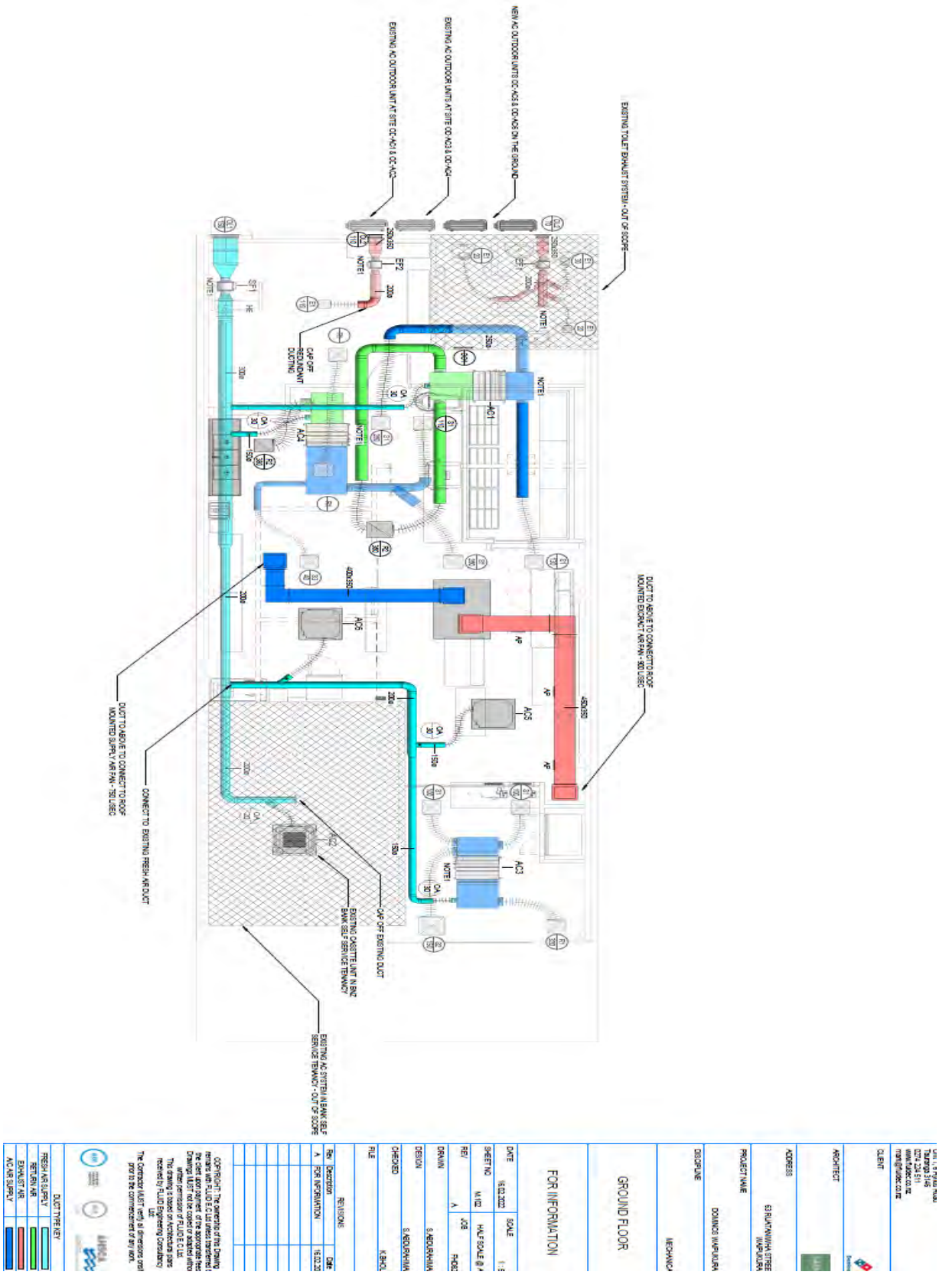
Signed on behalf of the council			
Name	Eugene Swanepoel		
Position	Consents Compliance Officer	**Date**	18 November 2022

Signature	
Address	28 – 32 Ruataniwha Street, Waipawa

Appendices/attachments

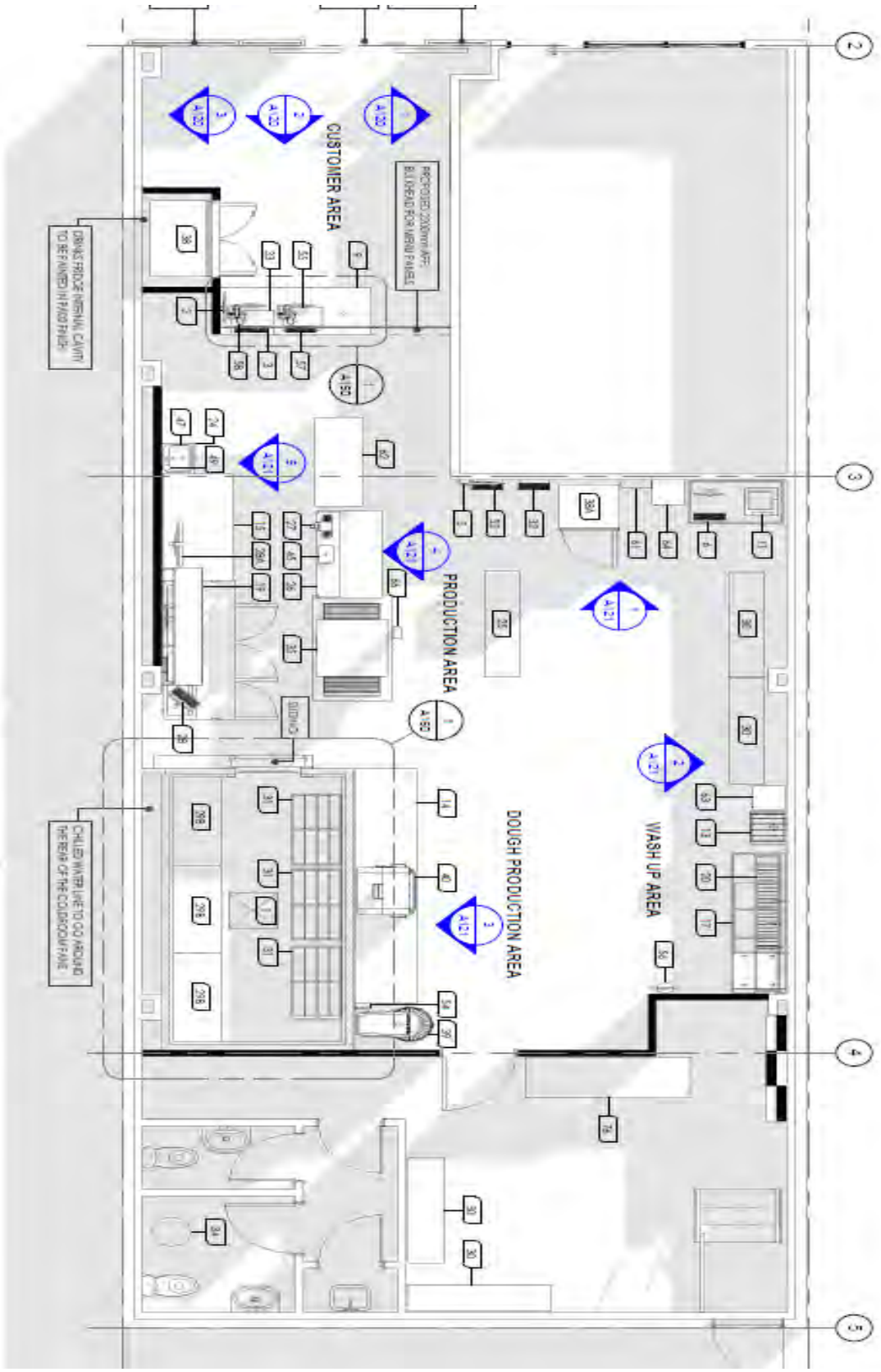
Appendix	Documents (including drawings)	Page number
A	Mechanical services drawing	15
B	Floor plan	16
C	Reflected ceiling plan	17
D	Floor plan	18
E	Fire safety floor plan	19
F	Fire report - summary	20
G	Fire report – Scope of works electrical	21
H	Fire report – Scope of works	22
I	Fire report – Proposed works	23
J	Fire report – GAP Assessment	24

Appendix A


NEW AC OUTDOOR UNITS OC-AC5 & OC-AC6 ON THE GROUND
EXISTING AC OUTDOOR UNITS AT SITE OC-AC3 & OC-AC4
EXISTING AC OUTDOOR UNIT AT SITE OC-AC1 & OC-AC2
EXISTING TOILET EXHAUST SYSTEM - OUT OF SCOPE
CAP OFF REDUNDANT DUCTING
DUCT TO ABOVE TO CONNECT TO ROOF MOUNTED SUPPLY AIR FAN - 750 L/SEC
DUCT TO ABOVE TO CONNECT TO ROOF MOUNTED EXHAUST AIR FAN - 650 L/SEC
CONNECT TO EXISTING FRESH AIR DUCT
EXISTING CASSETTE UNIT IN BNZ BANK SELF SERVICE TENANCY
CAP OFF EXISTING DUCT
EXISTING AC SYSTEM IN BANK SELF SERVICE TENANCY - OUT OF SCOPE
DUCT TYPE KEY
FRESH AIR SUPPLY
RETURN AIR
EXHAUST AIR
AC/ AIR SUPPLY
COPYRIGHT: The ownership of this Drawing remains with FLUID E & C Ltd unless transferred in writing by agreement. This Drawing is issued on the condition that it is not copied, reused, or passed to a third party without the written permission of FLUID E & C Ltd.
This drawing is based on Architectural plans received by FLUID Engineering Consultancy Ltd.
The Contractor MUST verify all dimensions on site prior to the commencement of any work.
REVISIONS
Rev Description Date
A FOR INFORMATION 16.02.22
DATE 16.02.2022
SCALE
SHEET NO M 101
HALF SCALE @ A1
REV A
JOB
DRAWN S.ABDURAHMAN
DESIGN S.ABDURAHMAN
CHECKED S.ABDURAHMAN
FILE H:\PROJ...
FOR INFORMATION
GROUND FLOOR
DISCIPLINE MECHANICAL
PROJECT NAME DOMINO'S WAIPUKURAU
ADDRESS 61 RUATANIWHA STREET WAIPUKURAU
ARCHITECT
CLIENT
Domino's

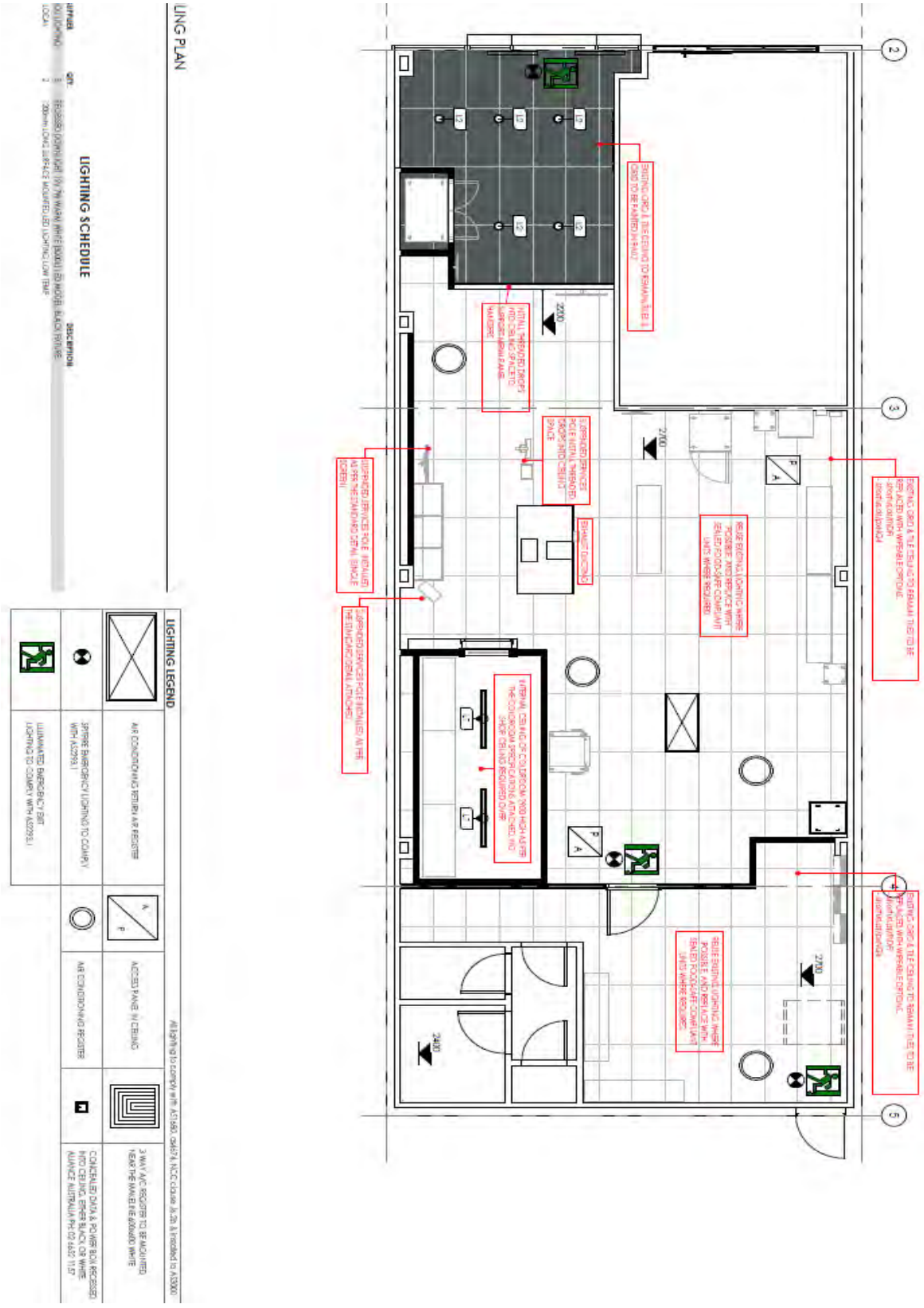
CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Appendix B

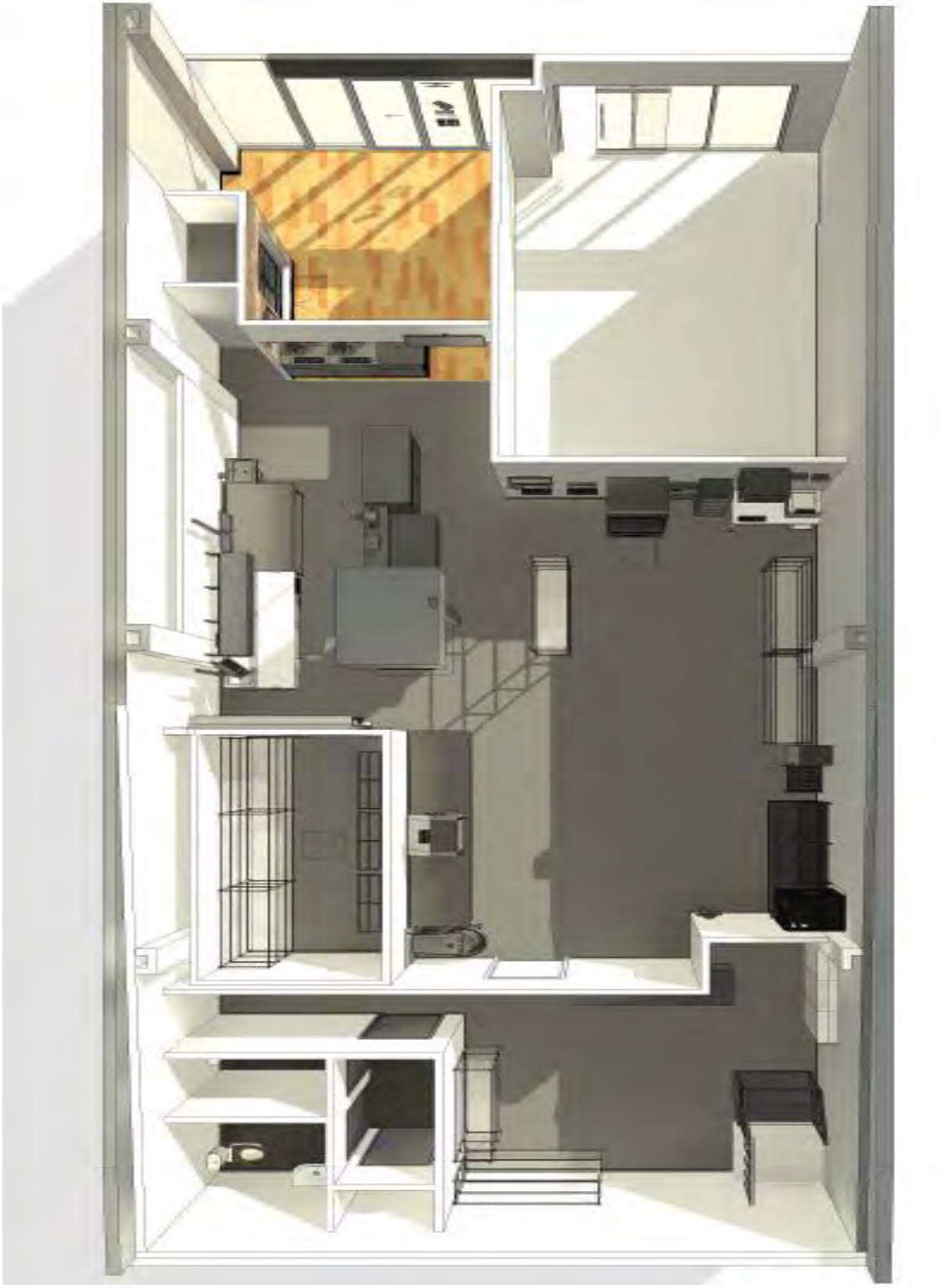


CENTRAL HAWKE'S BAY DISTRICT COUNCIL

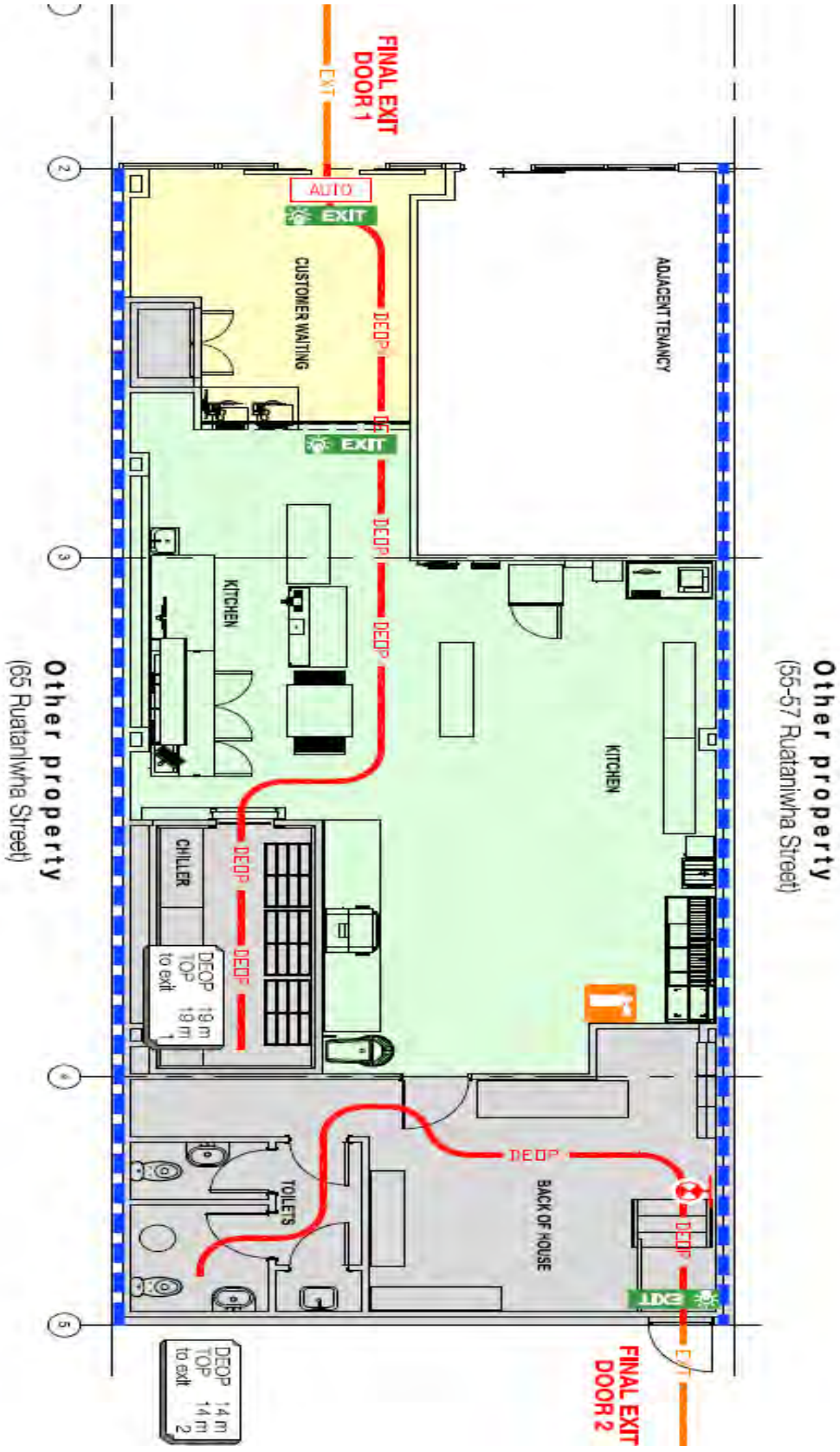
Appendix C



Appendix D



Appendix E


FINAL EXIT DOOR 1
EXIT
AUTO
EXIT
CUSTOMER WAITING
ADJACENT TENANCY
DEOP
EXIT
DEOP
DEOP
KITCHEN
KITCHEN
Other property
(65 Ruataniwha Street)
Other property
(55-57 Ruataniwha Street)
CHILLER
DEOP
DEOP
DEOP TOP 19 m to exit 1
DEOP
TOILETS
BACK OF HOUSE
DEOP
DEOP
EXIT
FINAL EXIT DOOR 2
EXIT
DEOP TOP 14 m to exit 2

C EXECUTIVE SUMMARY

This executive summary shall be read in conjunction with the remainder of this fire safety analysis.

This report has been prepared solely for the benefit of the Owner, the Designer, the Contractor, the Building Consent Authority, the Territorial Authority and future IQPs with respect to the purpose and engagement of this analysis.

It is critical this report is circulated to all persons involved with the project and to those involved with the ongoing maintenance of the building.

C1.1 The building and proposal

1. The proposal is to provide internal alterations and convert the existing retail tenancy into a new fast food takeaway restaurant. The existing BNZ self service area will be framed off and will continue to operate independently of the new fast food restaurant tenancy. — Para D2.1
2. After the alterations are complete, the building will remain classified as Commercial. However; the use of the tenancy will change from Crowd Medium (as retail) to Crowd Large (attached cooking facility). — Para D2.3
3. The purpose of the report is to assist with obtaining Building Consent by demonstrating how new work complies with the NZBC C1-6, how the existing building complies with means of escape from fire as nearly as is reasonably practicable, and how the tenancy undergoing the 'change of use' will continue to avoid spread of fire to other property, as required by Section 115 of the Building Act 2004. — Para D3.1
4. The fire report provides a detailed analysis demonstrating how the building will comply with NZBC C/AS2, F6/AS1 and F8/AS1.
5. The Consultant understands that the Building Consent Authority is required to send the building consent application to Fire and Emergency NZ for advice relating to means of escape and fire fighting facilities. — Para G1.2

C1.2 For the designer

1. Doors are required to be provided with correct door handles and locking devices and the correct clear opening width. — Para E3.9.1 and E3.9.4
2. New fabrics, floor, wall and ceiling surface finishes are required to comply with the restrictions setout in this fire report. — Para E4.5

C1.3 For the structural engineer

1. The existing external fire walls shall be provided with structural stability during and after a fire. — Para E4.2

C1.4 For the contractor

1.	Risk of injury is required to be mitigated during construction.	Section J2
2.	Door hardware on the accessible route is required to be lever handle (with the handle returning to the door face), at 900mm to 1200mm above floor level.	Para E3.9.1
3.	When the building is occupied, locking devices in the direction of escape are required to be clearly visible and be easily operated without the use of a key, digital pin entry, card access or other security device.	Para E3.9.2
4.	Doors on escape routes have the minimum clear opening width.	Para E3.9.4
5.	Wall / ceiling linings / surfaces are required to have complying Group Number finishes.	Para E4.5.1
6.	Floor finishes are required to be non-combustible or have a high critical radiant flux (CRF).	
7.	Insulated panels are required to be constructed in accordance with manufacturer's specification. Penetrations are required to be fire stopped.	Para TABLE 6

C1.5 For the electrician

1.	Emergency lighting is required to be installed where shown on appended drawing FA1 in accordance with NZBC F6/AS1.	Para E2.2.3
2.	Continuously powered (maintained) illuminated fire exit signs are required to identify means of escape where indicated on appended drawing FA1 and are required to comply with NZBC F8/AS1.	Para E3.10.1
3.	The Electrician is required to provide a Certificate of Compliance that electrical installations comply with the Electrical (Safety) Regulations.	Para E7.1

C1.6 For the gasfitter

1.	The Gasfitter should provide verification that new gas burning installations have been correctly installed in accordance with NZBC G4, G10 and G11.	Para E7.2
2.	Any new gas pipework within walls, or roof/ceiling spaces must either have those spaces ventilated, or the gas pipework sheathed and have the sheathing ventilated.	

C1.7 For the HVAC contractor

1.	Ceiling mounted Heating Air Conditioning cassette systems must be fully ducted.	Para E2.2.2, E4.6
2.	Ensure ductwork has complying surface finishes.	Para E4.5.1
3.	Hood extract ducting is required to be comply with AS1668 and AS1682	Para E4.6.3

C1.8 For the fire alarm contractor

1.	Hand held fire fighting equipment should be available during construction, and where retained, be maintained to comply with NZS4503:2005.	Para E4.6

C1.9 The owner

1.	If the layout of the building is ever altered, the owner is required to inform the Territorial Authority if a change of use is occurring, and inform the Building Consent Authority if those alterations affect the primary structure of the building and/or specified systems such as signage and emergency lighting.	Para D3.6
2.	A Building Consent is required for the work. The Owner is responsible for obtaining all consents and certificates.	
3.	Management is to ensure escape routes are kept clear at all times and that exit doors are not blocked and are able to open freely whenever the building is occupied. External escape routes are required to be kept clear at all times.	Para E3.3.2, E3.3.4 E3.6, E3.9.2
4.	The owner is required to ensure specified systems in the building are regularly inspected, tested and maintained.	Para L1
5.	White text on blue background evacuation notices are required in the building.	Para G1.5.2
6.	The Owner should undertake regular preventative normal maintenance of fire safety features, fire rated construction and means of escape.	Para L3
7.	Solid waste must not be kept within the building unless stored within a separate firecell, and must not be kept outside the building that may cause a hazard to buildings.	Para E4.3.2, G1.5.5

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12/05/2022
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Appendix I

D2 Proposed work

D2.1 Proposal

The proposal is to provide internal alterations and convert the existing retail tenancy into a new fast food takeaway restaurant. The existing BNZ self service area will be framed off and will continue to operate independently of the new fast food restaurant tenancy.

D2.2 Requirement for Building Consent

The proposed work is not exempt from requiring a Building Consent and requires the Owner, or the Owner's Representative, to obtain a Building Consent prior to the building work commencing.

D2.3 Building classification after the work is complete

After the alterations are complete, the building will remain classified as Commercial. However; the use of the tenancy will change from Crowd Medium (as retail) to Crowd Large (attached cooking facility).

With regards to fire safety, requirements for compliance for the new use is not additional to or more onerous than requirements for compliance for the old use;

- The Risk Group will remain as CA,
- The Life and Property Ratings are not more onerous,
- The Fire Safety Systems are not more onerous,
- Means of escape is not more onerous.

However; compliance with NZBC G1, G3, G4, G13 is more onerous for the new cooking facility use than the old retail use. On this basis, the proposal is a *'change of use'*, and Section 115b of the Building Act 2004 is required to be satisfied.

F GAP ASSESSMENT

F1.1 What it means

This Gap Assessment summarises the current state of fire safety compliance for the building, summarises the requirements for the building to fully comply, summarises the upgrades and effects of the proposed work, and identifies any gaps in compliance.

F1.2 Source of information for the existing building

Information relating to the existing building is obtained from the base building fire report issued on the 5th Nov 2014 by Vulcan Fire Engineering.

F1.3 Extent of assessment

Providing a Gap Assessment for the Building is unreasonable and impracticable. The Gap Assessment is limited to just the structure undergoing alterations.

F2 Assessment

TABLE 3 Gap Assessment Of Existing, As New, And Proposed

Aspect	Fire Safety Of The Existing Building	Compliance Required By NZBC C/AS2 For A New Building	Compliance Proposed	Compliance Gap
Use and risk	Retail Use CM Risk Group CA	Cooking Use CL Risk Group CA	Cooking Use CL Risk Group CA	Change of use occurring but No Gap
Fire Alarm System	No fire alarm system.	No fire alarm system.	No fire alarm system.	No Gap.
Emergency Lighting	Emergency lighting over changes in level.	Emergency lighting over changes in level.	Retaining and maintaining existing emergency lighting.	No Gap.
Fire Hydrants	Not required for proposed tenancy with hose run <75m.	Not required for proposed tenancy with hose run <75m.	Not required for proposed tenancy with hose run <75m.	No Gap.
Tenancy Occupant Load	19 people.	13 Public and 8 staff.	13 Public and 8 staff.	Complies with Acceptable Solutions. Occupant increased by 2 people due to change of use.

FIRE SAFETY ANALYSIS

INTERNAL ALTERATIONS AND CHANGE OF USE

FOR

DOMINOS PIZZA

AT
63 RUATANIWHA STREET
WAIPUKURAU

ENGAGED BY
DOMINOS PIZZA NEW ZEALAND LTD

Project : DF021-63
Version : A
Date : 22 FEB 2022

A TABLE OF CONTENTS

B DOCUMENT INFORMATION

VERSION HISTORY

Date:	Version:	Created By:	Reason:
22 FEB 2022	A	Josh Kendall	First Issue.

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Duncan Renner
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Central Hawke's Bay
District Council

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4. The owner is required to ensure specified systems in the building are regularly inspected, tested and maintained. — Para L1
5. White text on blue background evacuation notices are required in the building. — Para G1.5.2
6. The Owner should undertake regular preventative normal maintenance of fire safety features, fire rated construction and means of escape. — Para L3
7. Solid waste must not be kept within the building unless stored within a separate firecell, and must not be kept outside the building that may cause a hazard to buildings. — Para E4.3.2, G1.5.5

D FIRE DESIGN BRIEF

D1 Existing building

D1.1 The building

The existing single storey, single firecell retail building has a floor area of approximately 186m^2. The building is constructed of structural steel frame with precast concrete and solid block walls lined with plasterboard.

D1.2 Previous fire reports for the building

The consultant is aware of the following previous fire reports issued for the building and structures;

5 NOV 2014 – BUILDING FIRE REPORT

VULCAN Fire Engineering issued a base building fire report covering the building.

17 MAY 2019 – BUILDING FIRE REPORT

WSP Opus issued a statement of changes fire report for minor internal alterations.

Other fire reports may exist for other work on the property, but these have not been brought to the attention of the Consultant.

D1.3 Compliance of the existing building

The consultant has not researched council archives to determine code compliance of the existing building. This fire analysis is based on the understanding that the supplied Base Building Fire Report is the most recent report undertaken for the entire building and that the Building Consent Authority are accepting reference to the base building fire report.

D1.4 Existing building classification

The existing building has the following classifications and uses;

TABLE 1 Existing Building Classification		
Classification and Use	**Regulation**	**Justification**
Commercial	NZBC A1 – Classified Uses.	Goods and services are developed, exchanged or stored.
Crowd Medium	Schedule 2 of Building (Specified Systems, Change of Use, and Earthquake-Prone Buildings) Regulations 2005.	Retail.
Working Low		Offices.

D1.5 Existing fire safety systems

According to the 2014 Vulcan fire report;

- Illuminated exit signs are installed.
- Emergency lighting is provided over changes in level.
- External walls provide a fire resistance rating of 120/120/120 minutes.
- Auto sliding doors are provided with a push button over-ride and back-up power supply.

D2 Proposed work

D2.1 Proposal

The proposal is to provide internal alterations and convert the existing retail tenancy into a new fast food takeaway restaurant. The existing BNZ self service area will be framed off and will continue to operate independently of the new fast food restaurant tenancy.

D2.2 Requirement for Building Consent

The proposed work is not exempt from requiring a Building Consent and requires the Owner, or the Owner's Representative, to obtain a Building Consent prior to the building work commencing.

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- Means of escape is not more onerous.

However; compliance with NZBC G1, G3, G4, G13 is more onerous for the new cooking facility use than the old retail use. On this basis, the proposal is a *'change of use'*, and Section 115b of the Building Act 2004 is required to be satisfied.

D2.4 Staging of work, timeframe and interim safety

The consultant understands that the proposed building work will be undertaken in a single phase within a single building consent.

Building work is required to commence within 12 months of the building consent being issued, and be completed within 2 years unless the Building Consent Authority approves a request for extension of time.

The Person Conducting or Undertaking a Business should ensure the premises is managed in such a way that staff and contractors can still safely evacuate from the building in less than the maximum permitted distance to the second closest exit from the furthest point in the building.

The basis of this report and drawings is for the tenancy to be unoccupied except by contractors until Code Compliance Certificate is issued.

D2.5 Occupant attributes

D2.5.1 Hours of building use

The intended use of the building is during business hours, 7 days a week, which may include late nights.

D2.5.2 Sleeping activities

The building is not used for sleeping activities.

D2.5.3 People with disabilities

The building will be open to admittance of public who may visit or work in the building.[1]

Where an accessible route is also used as an escape route; the escape route widths, door handles and gradients are also required to be appropriate for use by 'persons with disabilities'. However; there is no current requirement in the Acceptable Solutions for every escape route to be accessible for 'persons with disabilities'.

D2.5.4 Means of escape philosophy

The building will not remain occupied in the event of a fire emergency. Means of escape philosophy is for one out-all out immediate self-evacuation.

D2.5.5 Occupant awareness

Occupants will be aware of their surroundings as the building is not a place where people would require staged evacuation, would be asleep or would be sedated.

[1] The use of the building is one that is listed in Schedule 2 of the Building Act 2004.

D2.5.6 Occupant delay from evacuating

When the building / premises is lawfully occupied in accordance with its reasonably foreseeable intended use, occupants are not expected to be unreasonably delayed or impeded by locked gates / doors, or obstructed escape routes in their course of their escape from fire.

D2.5.7 Occupant familiarity with evacuation procedures

Staff will be familiar with escape routes from the building. Although not required for Building Consent or for obtaining Code Compliance Certificate, evacuation drills and warden training will be undertaken at no less than 6 monthly intervals as required by Fire and Emergency NZ as part of a separate Evacuation Scheme.

D2.6 Documentation provided

This fire report is based on the following information;

TABLE 1 Reference documents

Sheet	Description	Author	Revision	Date of issue
2206	Plan as proposed.	SACH	A	14 Feb 2022
Fire report	Vulcan base building fire report.	Vulcan Fire Engineering	A	5 Nov 2014

D3 Engagement and purpose

D3.1 Engagement

DOMINOS PIZZA NEW ZEALAND LTD (the Tenant) has engaged Objective Corporation Solutions NZ Limited (the Consultant), for the purpose of assisting with obtaining Building Consent, to provide a fire analysis for the INTERNAL ALTERATIONS AND CHANGE OF USE for DOMINOS PIZZA, at 63 RUATANIWHA STREET, WAIPUKURAU;

- Demonstrating how new work will comply with NZBC C1-6 and F6-8 as required by Section 17 of the Building Act 2004, and
- Demonstrating how the existing building will comply 'as nearly as is reasonably practicable' with aspects of the NZ Building Code relating to 'Means of Escape From Fire', protection of other property, and fire rating performance as required by Section 115b of the Building Act 2004, and
- Listing where the Owner finds certain upgrades to be unreasonable and impracticable at this time.

'Means of Escape From Fire' is defined as the escape routes from the building to a *place of safety*, and includes active and passive systems to warn people of fire and to assist protection of occupants from the effects of fire in their course of escape from fire.[2]

[2] Refer Section 7 of the Building Act 2004 for definition of 'means of escape', and MBIE workshop guidance issued April 2013.

D3.2 Building code

D3.2.1 Relevant code clauses

This fire analysis recognises the principles of Section 4(2) of the Building Act 2004 where applicable to this building subject Section 112 and 115 of the Building Act 2004. In meeting these principles, the intent of this report is to;

- Safeguard people from an unacceptable risk of injury or illness caused by fire, protect other property from damage caused by fire, and facilitate firefighting and rescue operations (NZBC objective C1).
- Help safeguard people from injury in escape routes during failure of the main lighting (NZBC objective F6.1),
- Safeguard people from injury or illness due to lack of awareness of an emergency (NZBC objective F7.1), and
- Safeguard people from injury or illness resulting from inadequate identification of escape routes (NZBC objectives F8.1a & b).

D3.2.2 Building code definition of Unacceptable Risk due to fire

In buildings without sprinkler protection, Building Code clause C4.3 sets the performance criteria for unacceptable risk on an escape route as;

- exposure to a Fractional Effective Dose of more than 0.3 for Carbon Monoxide or Fractional Effective Dose of more than 0.3 for Thermal Effects (equivalent in ISO13571 to 11% of occupants having a sensitivity that would render them unable to self-evacuate due to severe nausea and dizziness from carbon monoxide poisoning or due to 2nd degree burns from radiant or convective heat), or
- exposure to smoke that reduces visibility to less than 10m, or less than 5m in rooms smaller than 100m^2, while evacuating to a safe place.

D3.3 Means of compliance

This fire report is based on the Building Code Acceptable Solutions for fire safety, and where full compliance is achieved, the building achieves the same level of safety required by the Building Code in accordance with Section 22(2) of the Building Act 2004.

TABLE 2 Means Of Compliance With The Building Code

NZBC Clause		Compliance Method	Version
B2	Durability	B2/AS1	Amendment 12 Effective 28 Nov 2019
C1-6	Protection From Fire	C/AS2	Amendment 2 Effective 5 Nov 2020
D1	Access	D1/AS1	Amendment 6 Effective 1 Jan 2017
F5	Construction Hazards	F5/AS1	First Edition Effective Jul 1992
F6	Escape Visibility	F6/AS1	Amendment 4 Effective 1 Jan 2017
F7	Warning Systems	F7/AS1	Fourth Edition Effective 10 Apr 2012
F8	Signs	F8/AS1	Amendment 4 Effective 1 Jan 2017
G9	Electricity	G9/AS1	Amendment 7 Effective 5 Nov 2020
G10	Piped Services	G10/AS1	Amendment 8 Effective 1 Jan 2017
G11	Gas as Energy Source	G11/AS1	Amendment 6 Effective 1 Jan 2017

D3.4 Other objectives

D3.4.1 Owners property protection and business continuity

The Building Code does not provide protection from loss of tenants or owner's property. As such; this fire report does not consider business continuity, and does not consider ongoing insurability and community importance. This fire report does not cover evacuation procedures, or provide for emergency preparedness / recovery.

D3.4.2 Health and Safety at Work

This fire report does not set out all additional work that may be required to eliminate or minimise perceived or real work place risks to people who construct, work at, or are within vicinity of the building. This obligation is beyond the ability of the Consultant to control or influence beyond the fire safety design of the building.

Refer Section J - HEALTH AND SAFETY AT WORK.

D3.4.3 Evacuation scheme

Although this report outlines the requirements for displaying evacuation procedures, this report does not provide the specific evacuation procedures and warden training that would be required as part of a separate evacuation scheme application that would be submitted for FENZ approval.

D3.5 Fire and Emergency NZ

The building is existing, and the proposed work will have a significant effect as the tenancy is undergoing a change of use. **Design review is required.**

Refer Section G - FIRE AND EMERGENCY NZ.

D3.6 Owners responsibilities

The *'Owner'* is responsible for obtaining building consents, approvals and certificates, and ensuring that building work carried out complies with the Building Consent and the NZ Building Code.[3]

Once the proposed work is complete, the owner becomes responsible for managing the following parameters in accordance with this report;

1. The occupant load in the building,
2. The use of spaces within the building,
3. Ongoing compliance of the means of escape, and
4. Maintenance of specified systems.

D3.7 Document coordination

At the time of writing this report, the Consultant has not been engaged to provide Document Coordination to ensure that other consultants work correlates with the requirements of this fire safety analysis.

In addition to the purpose of this fire report, the BCA, Building Control Officers, consultants and contractors, whose work is affected by this report, are expected to have read this report and appendices, understood the implications and have incorporated the relevant fire safety requirements into their consent documents, field/file notes, and building work. This Fire Safety Analysis shall be read in conjunction with the appended Objective Corporation Solutions NZ Limited fire safety project DF021-63 sheet FA1.

In lieu of a document coordination check, all consultants involved in the project are required to ensure the requirements of this fire analysis are correctly implemented in their own work.

[3] Refer Section 14B of the Building Act 2004.

D3.8 Construction monitoring

The consultant recommends being engaged to undertake construction monitoring, but at the time of writing this report the consultant has not been engaged to undertake construction monitoring, and has not been engaged to provide a PS4 construction review statement.

Refer Section K - INSPECTIONS AND DECLARATIONS outlining the inspections required to be undertaken by Building Consent Authority as their responsibility under Section 14F(a)(ii) of the Building Act 2004.

In lieu of construction monitoring, all contractors are required to ensure the requirements of this fire analysis are correctly constructed and applied on site.

D3.9 Durability of fire safety systems

Fire safety systems specified in this fire report are expected to have the durabilities as defined by NZBC B2/AS1 from the date Code Compliance Certificate is issued. Active and passive systems must be maintained in good condition and working order for the life of the building.

Refer Section L - MAINTENANCE.

D3.10 Type of information to be provided for the existing building

The building is assessed using the Guide for Requesting Information For Means Escape issued by the Ministry of Building Innovation and Employment (MBIE) on 19 Dec 2013 to determine the extent and type of information to be provided with this fire report. The building scores 12 which indicates that MBIE only expect the remainder of the building to be covered a Gap Assessment as part of this fire report.

Refer Section F - GAP ASSESSMENT.

TABLE 3 MBIE Score Sheet

Key Factors	Score For The Proposal
BUILDING AGE	
Approved from 1 June 2001 onwards	0
INFORMATION HELD ON THE BUILDING BY THE BCA OR TA	
Full building fire safety assessment on file date 1 June 2001 or later	2
EXTENT OF THE PROPOSED BUILDING WORK	
Significant (change of use)	6
BUILDING IMPORTANCE LEVEL	
Level 2	4
Additional points for building level 1, 2 or 3 with sleeping facilities	No Sleeping
TOTAL POINTS SCORED	12

E ANALYSIS

E1 Part 1: General

E1.1 Scope of acceptable solutions

The following table determines that the proposal is within the scope criteria of the Acceptable Solutions;

TABLE 4 Scoping Of The Acceptable Solutions.

Activities	Existing Building	Once Alterations Are Complete	Within Scope
Limited Area High Level Storage	None	None	✓
Atriums	None	None	✓
Limited Area Intermediate Floors	None	None	✓
Operating theatres, hyperbaric chambers, birthing suites, sedation.	None	None	✓
Tiered Seating	None	None	✓
Number of floors	Single storey	Single storey	✓
Restricted means of escape.	None	None	✓
Specific Fire Engineering	None	None	✓
Evacuation Strategy	All out, immediate self-evacuation.	All out, immediate self-evacuation.	✓

E1.2 Primary risk group

The Primary Risk Group for the tenancy is CA (personal services and fastfood takeaway) as this Risk Group has the most onerous fire safety requirements compared to that of WB (kitchens).

E1.3 Peak occupant capacity

E1.3.1 Theoretical peak occupant capacity based on occupant density

Based on the idealistic spatial densities given in NZBC C/AS2 Table 1.2, the Theoretical Peak Occupant Capacity is 13 public and 8 staff. The calculations are provided on appended drawing FA1.

Spaces which are used intermittently like storerooms and amenities are not included in the occupant load.

E2 Part 2: Fire safety systems and fire ratings

E2.1 Provision of firecells

✓ *This requirement is satisfied.* The firecell floor area is less than the maximum permitted 5000 m^2.

E2.2 Fire safety systems

E2.2.1 Fire safety systems

Not applicable. For a CA primary risk group single storey building, with <50 people on escape routes, storage height <3 m, fire hose run <75m from hardstanding points, NZBC C/AS2 does not require any fire safety system or fire hydrant system.

E2.2.2 Smoke control in air handling systems

A Type 9 fire safety precaution is not required. Therefore; HVAC air handling units are not required to auto-shutdown upon fire alarm activation.

The tenancy will not have ceiling mounted Heating Air Conditioning cassette systems that use the ceiling plenums as air supply paths.

E2.2.3 Visibility in escape routes

Existing emergency lighting provided over the rear steps is required to be retained and maintained as per the base building fire report. Any new emergency lighting nominally installed on the means of escape shall be installed in accordance with NZBC F6/AS1. Refer section H - EMERGENCY LIGHTING SPECIFICATION.

The Electrician is required to ensure that emergency lighting is operating correctly.

E2.2.4 Special requirements for early childhood centres

Not applicable. The proposal does not include space for an Early Childhood Centre.

E2.2.5 Fire alarms in other firecells

Not applicable. The proposal is for a single firecell without a fire alarm.

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E2.2.6 More than one risk group in a firecell

✓ *This requirement is satisfied.* The fire safety systems in a firecell are those required for the Primary Risk Group within that firecell.

E2.2.7 Same risk group on different floors

Not applicable. The proposal is single storey.

E2.2.8 Activation of alerting devices

Not applicable. The proposal does not require a fire alarm.

E2.3 Fire resistance ratings

E2.3.1 Fire resistance values

The Life Rating is not required to be considered as the building is a single firecell.

The Property Rating is not required to be considered as the proposed work does not require the building to have additional fire rated construction to subdivide floor areas, to protect other property.

E2.3.2 General requirements for fire resistance ratings

- Internal fire separations are required to be two way fire rated from threat of fire attack on both sides equally, but not from fire attack on both sides simultaneously.
- Areas of new external walls within 1m of relevant boundaries are required to be fire rated from exposure from both sides equally.
- Areas of external walls of buildings less than 10 m high and more than 1m from relevant boundaries are only required to be fire rated from exposure from inside the building spreading outwards.

E2.3.3 Structural members connected to fire rated building elements

Structural members connected to building elements that are fire rated shall also be rated at no less than the elements to which they are connected, or alternatively their connections and supports shall be designed so that their collapse during fire will not cause collapse of the fire rated elements.

NZBC C/AS2 para 2.3.11 requires the Structural Engineer to ensure that collapse of non-fire rated structural members will not cause the collapse of fire rated elements. Otherwise non-fire rated structural members will require the same fire rating as the elements they are connected to or have connections designed to fail, thus avoiding premature collapse of fire rated elements.

E3 Part 3: Means of escape

E3.1 Safe and easy to use escape routes

Escape routes do not pass from a higher to lower level of protection in the direction of escape.

Generally doors comply with NZBC D1/AS1.

- Hinged doors have door swings that open to a 'level' landing that extends at least 400mm beyond the door swing.
- Maximum door threshold height is 20mm, and the steepest gradient of landings is 1:20 to still be considered 'level'.
- Have adequate slip resistance.

E3.2 Number of escape routes

✓ *This requirement is satisfied.* The tenancy is allowed to have a single means of escape.

E3.3 Height and width of escape routes

E3.3.1 Escape route height

✓ *This requirement is satisfied.* Clear height within the escape routes is no less than 2100mm except where the escape route passes through doorways. Doors on escape routes will have a clear opening height no less than 1955mm.

E3.3.2 Escape route width

Escape route widths are required to comply with the following rules;

1. Door widths are required to provide the minimum clear opening width as described in para E3.9.4 of this analysis,
2. Where escape routes not on the accessible route and are permitted to have a single means of escape, the minimum width is 700 mm.
3. Where escape routes are on the accessible route, the minimum width is 1200 mm.
4. Handrails are permitted to intrude into the escape route approx 100 mm for each handrail.
5. The combined total width of escape routes allows for 7mm per person horizontally (7x21=147mm).

The Owner is required to ensure that the minimum clear width of escape routes is maintained whenever the building is occupied.

E3.3.3 Handrails and stairs

Handrails are required to be provided to stairs, steps and accessible ramps in accordance with NZBC D1/AS1 and F4/AS1.

The designer is required to ensure all stairs have correctly detailed handrails and this be demonstrated in the Building Consent application.

The Contractor is required to ensure that handrails complying with NZBC D1/AS1 and F4/AS1 are provided on stairs.

E3.3.4 Obstructions

Escape routes widths must be kept clear at all times. This is not covered by the Building Warrant of Fitness system, but instead is an ongoing building management matter. Minor Obstructions shown in NZBC D1/AS1 Figure 4 are allowed to intrude into the minimum required clear escape route width.

The owner is required to ensure that escape routes are kept clear at all times. This could be in the form or regular daily checks, signage and floormarking, or physical barriers such as bollards.

E3.4 Length of escape routes

E3.4.1 Escape route length

✓ *This requirement is satisfied.* Worst case dead end of 19m is less than the maximum permitted 20m for Risk Group CA without a fire alarm system. Refer escape routes on appended drawing FA1.

E3.4.2 Open paths

- Escape route lengths commence within 1 m of the most remote point in the space being considered.
- Escape routes are setout around the perimeter of spaces, or where obstacles are known, are setout to go around these.
- Open paths terminate at External Escape Routes. External Escape Routes terminate at Safe Places.
- The most restrictive maximum path length is applied where escape routes are used by multiple risk groups.

E3.5 Dead ends

✓ *This requirement is satisfied.* The Dead End Open Paths serves an occupant load no greater than 50 people.

E3.6 External escape routes

✓ *This requirement is satisfied.* External escape routes diverge from the building by more than 45 degrees, and remain at least 2m clear of adjacent firecells on the same property.

Therefore; fire rated construction is not required to protect the external escape routes.

The Owner is required to ensure that the external escape route is kept clear at all times. This could be in the form or regular daily checks, signage, or physical barriers such as bollards.

E3.7 Final exits

The Building Code defines;

- A Final Exit is the point that an escape terminates by giving direct access to a Safe Place. It is a point of arrival, not a point of departure.
- A Safe Place is an Open Space away from the building from which people may safely disperse after escape the effects of fire.
- An Open Space is as space where there are, and will be, no buildings and does not have a roof over any part of it.

✓ *This requirement is satisfied.* Safe Places are shown on appended drawing FA1. There are no places of safety within the building.

E3.8 Single means of escape

✓ *This requirement will be satisfied.* Single means of escape from the building are permitted as the occupant load in those spaces does not exceed 50 people, the Dead End Open Path length does not exceed the maximum permitted, the building will not be used as an early childhood centre, the escape height is no greater than 10m, and the escape routes terminate at Final Exits.

E3.9 Doors subdividing escape routes

E3.9.1 Door closers and latching

Lever type or 'D' shaped door handles, located between 900 mm and 1200 mm above floor level, will be installed on doors which are on the accessible route. Note; the end of the door handle shall return towards the door.

All other doors on escape routes which are not on the accessible route are only required to have simple fasteners, be unlatched with one hand, be set in motion with two hands, and openable to the minimum required width with one hand.

The designer is required to ensure doors are provided with the correct door hardware and this be demonstrated in the Building Consent application.

The Contractor is required to ensure that lever handle door hardware is installed on hinged doors on the accessible route, and all other escape doors are able to be easily opened.

E3.9.2 Locking devices

When areas of the building or property are lawfully *occupied* in their intended use, locking devices on doors and gates from those areas are required to be;

1. Clearly visible,
2. Located where such a device would be normally expected, and
3. In the event of evacuation, be designed to be easily operated in the direction of escape without a key or other security device and allow the door to open in the normal manner.

The designer is required to ensure drawings show exit doors are fitted with free-handle or snib type locking devices.

The Contractor is required to ensure exit doors are not fitted with keyed locking devices, swipe card access, or digital pin locking devices.

E3.9.3 Direction of opening

The occupant load in the tenancy is 21 people, which is less than the maximum permitted 50 people on an inward opening door.

E3.9.4 Degree of opening, width and height

Hinged doors are required to open at least 90 degrees and have;

1. At least a 760 mm clear opening width on the accessible route and on doors not on dead ends.
2. Have a minimum leaf width of 500 mm for double doors,
3. At least 600 mm clear opening width elsewhere.

The designer is required to ensure doors are provided with the correct clear opening width and this be demonstrated in the Building Consent application.

The Contractor is required to ensure that doors on escape routes have the minimum clear opening width.

E3.9.5 Auto-sliding doors

The existing automatic sliding doors marked as AUTO on appended drawing FA1 are retained and maintained in accordance with NZS4239:1993.

According to the previous fire report, the existing automatic sliding doors are provided with a backup power supply and press button over-ride.

Any locking device installed on the inside of the doors is required to be unlockable without a key when the building is lawfully occupied in its reasonably foreseeable intended use.

The Electrician is required to ensure that auto-sliding doors comply with NZS4239:1993, are provided with a backup power supply, and provided with manual override devices to enable the door to be opened in a power outage or sensor malfunction.

E3.9.6 Other matters concerning doors on escape routes

The tenancy does not have;

- An intermediate floor.
- Stairs on open path changes in level.
- Spaces that have both sloping floors and ceilings.
- Escape through an adjoining building that is other property.
- An escape route that passes into an adjacent firecell that recommences as a new open path.
- Escape through a separate tenancy.
- An escape route that passes onto an intermediate floor that recommences as a new open path.
- Escaping via unenclosed stairs.
- Fixed or Loose seating for more than 60 people.
- Basements.
- Fire rated corridors and stairs.
- Vision panels.
- Controlled access door locks.
- Hold open devices.
- Delayed action devices.
- Spaces occupied by more than 100 people.

E3.10 Signs

E3.10.1 Fire exit signs

Continuously illuminated powered (maintained) fire exit signs will identify means of escape where indicated on appended drawing FA1 and are required to comply with NZBC F8/AS1.

Refer section I - SIGNAGE SPECIFICATION.

The Electrician is required to ensure that the signs are installed where required and are operating correctly.

E4 Part 4: Internal spread of fire and smoke

E4.1 Firecells

Not applicable. The tenancy is not fire separated into multiple firecells.

E4.2 Structural stability

As the building is undergoing a change of use, Section 115 of the Building Act 2004 requires the structural engineer for the project to demonstrate to the Building Consent Authority, as part of the building consent application that the structure supporting the midfloor fire separation able to withstand, during and after a fire, the design live and dead loads required by NZBC B1 and any additional loads of building collapse / deformation caused by the fire.

BCA Note : There is no midfloor as this was demolished in 2015

E4.3 Intermittent activities

RFI question 3

E4.3.1 Support activities

✓ *This requirement is satisfied.* Intermittent activities are permitted to be incorporated within the primary risk groups and so do not require fire or smoke separation.

E4.3.2 Storage of solid waste

Not applicable. The proposal does not include spaces within the building that would be used for storage of accumulated solid waste.

The Owner is required to ensure that escape routes are kept clear at all times and that solid waste, including kitchen waste, waste paper, waste cardboard and waste packaging, is not stored within the building. This is an ongoing building management matter.

E4.3.3 Plant, boiler and incinerator rooms

Not applicable. Except for cooking appliances, and localised space heating and water heating appliances, the proposal does not include centralised spaces that use combustible fuels as an energy source. Fire rated plant rooms are not required.

E4.4 Fire and smoke stopping

All penetrations in fire rated construction are required to be firestopped to achieve the same integrity and insulation rating as the fire separation they penetrate in accordance with AS4072.1:2005 and AS1530.4:2005. Penetrations to check include;

- Joints in fire rated construction.
- Single cables, cable bundles and cable trays. Recessed electrical outlets, recessed electrical cabinets.
- Ductwork and flues. Waste pipes and water supply pipes. Heat pump refrigerant pipework.
- Timber framing. Structural steelwork, steel purlins and girts.
- Door closures. Gaps between doorways / dampers and rough openings.

All contractors should carefully locate and plan in advance the type and size of service penetrations prior to fitting out to ensure there is an approved method of stopping the penetrations.

Firestopping methods are specific to the joint / pipe / duct / service penetration, specific to the orientation of the joint, penetration, the wall construction, and any wall linings and materials.

Do not penetrate fire rated construction if there is nothing in the building consent to demonstrate how to firestop the penetration.

The designer is required to ensure all penetrations have correctly detailed and specified firestopping methods and this be demonstrated in the Building Consent application.

Contractors are required to check fire and smoke rated construction and ensure that the integrity, insulation and smoke rating is maintained. Manufacturers test results must be checked prior to construction to ensure fire stopping is installed in accordance with the test specimen that was tested in the manufacturer's firestopping fire tests.

E4.5 Interior surface finishes

E4.5.1 Interior surface finishes

Wall & ceiling surfaces, and flexible ducting are required to comply with the restrictions in the table below. Refer appended drawing FA1.

The designer is required to ensure selected finishes and flexible ducting have complying surface finishes and this be demonstrated in the Building Consent application.

The Contractor is required to ensure that new wall, ceiling, and floor surfaces have complying surface finish restrictions.

The Mechanical Contractor is required to ensure air handling ductwork has complying surface finishes.

TABLE 5 Restrictions on new interior surface finishes

Space	Surface	Limit	Product	Achieved	Complies
Staff only areas Risk Group WB	Walls	GN ≤ 3	MF – Alibuild A2	GN1S (Branz FI6059-TT)	✓
			PA - Paint on plasterboard	GN2S (C/VM2 Table A1)	✓
	Ceiling	GN ≤ 3	PA - Paint on plasterboard	GN2S (C/VM2 Table A1)	✓
	Floors	CRF ≥1.2	Vinyl – Floor Lining	8.8 kW/m^2 as per test result. (ISO 9239-1:2010).	✓
Public waiting area. Risk Group CA	Walls	GN ≤ 2S	PA - Paint on plasterboard	GN2S (C/VM2 Table A1)	✓
			TM – Timber boards ≥ 9mm thick. ≥ 450 kg/m^3 density.	3 Coat on site application of Firezone 92 clear finish.[4]	✓
			Brick	GN1S (C/VM2 Table A1)	✓
	Ceiling	GN ≤ 2S	PA - Paint on plasterboard	GN2S (C/VM2 Table A1)	✓
	Floors	CRF ≥1.2	TILE – Ceramic Floor Tile	CRF 4.5 (C/VM2 Table B1)	✓

[4] https://www.zone.net.nz/files/20200420_FireZone92_Brochure_-_FINAL.pdf

TABLE 6 Restrictions on new interior surface finishes (continued)					
Space	**Surface**	**Limit**	**Product**	**Achieved**	**Complies**
All flexible HVAC Ductwork	Outer	GN ≤ 3	AS4254:2012	GN1S (C/VM2 Para A1.4a)	✓

E4.5.2 Foamed plastics

Foamed plastic insulation panels installed in the building are required to have flame propagation inhibitors that minimise propagation of fire complying with AS1366, and the panels are required to have a Group Number no greater than 3 when tested to ISO9705:1993 or ISO 13784.1:2002.

All penetrations and joints are required to be fire stopped with at least a 10 minute fire rated sealant. Panels are required to be constructed in accordance with manufacturers specifications.

E4.5.3 Exemptions to surface restrictions

Surface finish restrictions do not apply to;

1. Small areas of non-conforming product with a total aggregate surface area not more than 5m^2.
2. Electrical switches, outlets, cover plates and similar small discontinuous areas. Pipes and cables.
3. Handrails and general decorative trim such as architraves, skirtings and window components provided these do not exceed more than 5% of the surface area of the wall or ceiling.
4. Damp-proof courses, seals, caulking, flashings, thermal barriers, and ground moisture barriers.
5. Timber joinery and structural timber building elements such as columns, beams and portals.
6. Individual doorsets.

E4.6 Building services plant

E4.6.1 Ductwork penetrations through fire separations

Not applicable. Ductwork will not penetrate fire separations.

E4.6.2 Air handling unit function

Not applicable. Automatic shutdown of air handling units is not required, and the ceiling space will not be used as an air supply plenum for ceiling mounted HVAC cassette systems.

E4.6.3 Kitchen hood extract ducting and fans

Kitchen hood extract ducts are required to comprise of galvanised steel sheet at least 1.2mm thick or stainless steel at least 0.9mm thick and jointed in accordance with AS4254:2012 as required by AS/NZS1668.1:2015 para 6.2.3.1. Exhaust fans and casings are required to be manufactured from non-combustible material having a fusing temperature above 1000 C.

Ductwork run horizontally requires inspection points every 3m and shall have a rise of at least 0.5% in the direction of airflow. The duct extract system may continue to operate but any dedicated supply air shall shutdown as required by AS/NZS1668.1:2015 para 6.2.6.

The Mechanical Contractor is required to ensure all ductwork is installed correctly.

E4.7 Other matters concerning internal fire separations

The proposal does not have;

- New fire rated construction.
- Glazing that is required to be fire rated.
- Sleeping areas.
- Theatres, exhibition spaces, or tiered seating.
- Exitways and protected shafts.
- Long corridors.
- Subfloor spaces.
- Concealed ceiling space larger than 400m^2 or longer than 30m.
- Suspended fabrics or membrane structures.

E5 Part 5: External spread of fire

MBIE have issued guidance that indicates protection of other property is not included in the definition of 'means of escape' from existing buildings. As such; only firecells undergoing a change of use are required by Section 115 of the Building Act to be assessed for protection of other property.

E5.1 Horizontal fire spread from external walls

✓ *This requirement is satisfied*. Avoiding external spread of fire to *'relevant boundaries'* of '*other property'*, to *'notional boundaries'* facing sleeping area firecells on the same property will be avoided by a combination of fire rated construction and adequate setback distance.

'relevant boundary' means the nearest boundary of a freehold allotment except that if the *'other property'* is a *road, railway line,* or public *open space*, the *'relevant boundary'* is the boundary on the far side of that other property.

'other property' means any land or buildings of part of any land or buildings that are not held under the same allotment or not held under the same ownership; and includes a road.

E5.2 Table method for external walls

✓ *This requirement is satisfied.* The following table determines the maximum permitted unprotected areas for all external walls of the building for a Risk Group CA without sprinkler protected firecell (C/AS2 table 5.2b). Additional fire rated construction to protect other property is not required as part of the proposed work.

TABLE 2 Unprotected areas

Firecell elevation	Separation distance	Wall angle	Length of wall	Maximum overall permitted unprotected	Achieved overall unprotected	Largest permitted single opening	Actual largest single opening
Northern (front)	>11m	parallel	<10m	100%	NOT REQUIRED	N/A	N/A
Southern (rear)	>11m	parallel	<10m	100%	NOT REQUIRED	N/A	N/A
Western	1m	parallel	>10m	20%	0%	N/A	N/A
Eastern	<1m	parallel	>10m	0%	0%	N/A	N/A

E5.3 Fire resistance rating of external walls

The existing concrete panel and solid brick is determined to achieve a fire resistance rating of at least 120/120/120 minutes, as per the previous fire report.

E5.4 Horizontal fire spread from roofs

E5.4.1 Horizontal fire spread

Horizontal fire spread from the roof to boundaries within 1m separation distance is avoided by the boundary fire walls finishing at least 450 mm above the roof to form a parapet, as nearly as is reasonably practicable.

E5.5 Exterior surface finishes

✓ *This requirement is satisfied.* Precast concrete panels are non-combustible and will not be painted with a system having a dry film thickness greater than 1mm.

E5.6 Other matters concerning external spread of fire

The proposal does not have;

- Small openings in fire rated external walls.
- Storage space on the roof.
- Eaves construction within 0.65m from relevant boundaries.
- Open sided structures within 3m of relevant boundaries.
- External exitways over roofs.
- Risk Group SI or SM or an exitway above a lower adjacent roof of another firecell.
- An escape height of more than 4m and will not contain other property.
- Wall insulation as part of the cladding system.

E6 Part 6: Fire fighting

E6.1 Fire and Emergency NZ vehicular access

✓ *This requirement is satisfied*. Adequate Fire and Emergency NZ vehicular access is already available to within 20m of an entrance to the building via the access from the street.

E6.2 Information for fire fighters

Not applicable. Information for firefighters is not required as the building does not have a multi-zoned fire alarm or sprinkler system.

E6.3 Firefighting facilities

E6.3.1 Fire hydrant system

A fire hydrant system is not required on the premises as fire hose run from the truck hardstanding points to the furthest point in the building is less than 75m.

E6.3.2 Handheld firefighting equipment

Although not required for means of escape, an appropriate fire extinguisher should be available to mitigate fire risk during construction.

If a fire extinguisher is retained after work is complete, it is required to be maintained to NZS4503:2005 but is not required to be listed on the building's compliance schedule as they are not specified systems.

The Fire Safety Contractor is required to ensure that if fire extinguishers are retained in the building after construction is complete, they are installed and maintained in accordance with NZS4503:2005.

E7 Part 7: Prevention of fire occurring

E7.1 Electrical fire safety

Electrical fittings are required to comply with the Electricity (Safety) Regulations 2010.

The Electrician is required to provide a Certificate of Compliance that electrical installations comply with the Electrical (Safety) Regulations, and that all appliances and fittings are tagged and tested in accordance with AS/NZS3760.

E7.2 Fixed gas burning appliances, pipework and meters

New gas burning appliances shall be ventilated in accordance with NZBC G4/AS1. New gas pipework shall be in accordance with NZBC G10/AS1;

- Pipework is to be tested to be sound in accordance with AS/NZS5601.1 Appendix E.
- Pipework in ceilings and walls shall have cavities ventilated at least 50,000mm^2 per cavity, or the pipework be continuously sleeved with the sleeves ventilated into a ventilated space.

New gas burning appliances must be installed in accordance with NZBC G11/AS1;

- Any gas appliance flue that is dependent on an extractor fan is required to be interfaced so that gas supply is automatically shutoff in the event of inadequate flue ventilation.
- Gas meters must not be installed in rooms containing electrical switch gear, or any position that obstructs the escape route.

The Gasfitter must provide verification that gas pipework, meters and appliances have been installed correctly.

F GAP ASSESSMENT

F1.1 What it means

This Gap Assessment summarises the current state of fire safety compliance for the building, summarises the requirements for the building to fully comply, summarises the upgrades and effects of the proposed work, and identifies any gaps in compliance.

F1.2 Source of information for the existing building

Information relating to the existing building is obtained from the base building fire report issued on the 5th Nov 2014 by Vulcan Fire Engineering.

F1.3 Extent of assessment

Providing a Gap Assessment for the Building is unreasonable and impracticable. The Gap Assessment is limited to just the structure undergoing alterations.

F2 Assessment

TABLE 3	**Gap Assessment Of Existing, As New, And Proposed**			
Aspect	**Fire Safety Of The Existing Building**	**Compliance Required By NZBC C/AS2 For A New Building**	**Compliance Proposed**	**Compliance Gap**
Use and risk	Retail Use CM Risk Group CA	Cooking Use CL Risk Group CA	Cooking Use CL Risk Group CA	Change of use occurring but No Gap
Fire Alarm System	No fire alarm system.	No fire alarm system.	No fire alarm system.	No Gap.
Emergency Lighting	Emergency lighting over changes in level.	Emergency lighting over changes in level.	Retaining and maintaining existing emergency lighting.	No Gap.
Fire Hydrants	Not required for proposed tenancy with hose run <75m.	Not required for proposed tenancy with hose run <75m.	Not required for proposed tenancy with hose run <75m.	No Gap.
Tenancy Occupant Load	19 people.	13 Public and 8 staff.	13 Public and 8 staff.	Complies with Acceptable Solutions. Occupant increased by 2 people due to change of use.

TABLE 4	Gap Assessment Of Existing, As New, And Proposed (continued)			
Aspect	**Fire Safety Of The Existing Building**	**Compliance Required By NZBC C/AS2 For A New Building**	**Compliance Proposed**	**Compliance Gap**
Means of escape	Single means of escape.	Single means of escape.	Single means of escape.	No Gap.
Escape Route Lengths	Max dead end of 20m.	Max dead end of 20m.	Dead end of 19 m.	No Gap.
Exit Signs	Illuminated signs installed on all escape routes to NZBC F8.	Illuminated signs installed on all escape routes to NZBC F8.	Illuminated signs installed on all escape routes to NZBC F8.	No Gap.
Boundary Protection	More than 11m to boundaries, or provided with 120/120/120 minute concrete panels and solid brick.	More than 11m to boundaries, or provided with 120/120/120 minute concrete panels and solid brick.	More than 11m to boundaries, or provided with 120/120/120 minute concrete panels and solid brick.	No Gap.
Surface Finishes	Max Group Number 3 in the staff only areas, and a max of 2S in the public areas.	Max Group Number 3 in the staff only areas, and a max of 2S in the public areas.	Max Group Number 3 in the staff only areas, and a max of 2S in the public areas.	No Gap.

☑ End of GAP ASSESSMENT

G FIRE AND EMERGENCY NZ

G1.1 Building relevance

The table below identifies that the '*building*' is *'relevant'* to Fire and Emergency NZ and requires an evacuation scheme.[5]

TABLE 7 Relevance To Fire And Emergency NZ	
'Building' Used For The Purpose Of	**Occurrence**
The gathering together, for any purpose, of 100 or more persons.	Not Applicable.
Providing employment facilities for 10 or more persons.	This purpose could occur.
Providing accommodation for 6 or more persons (other than in 3 or fewer household units).	Not Applicable.
A place where hazardous substances are present in quantities exceeding the prescribed minimum amounts, whatever the purpose for which the building is used.	Unable to be determined.
Any other prescribed purpose.	No other purpose prescribed in the Act.

G1.2 Design review by Fire and Emergency NZ for certain buildings

The Fire Engineering Unit of Fire and Emergency NZ is required to review the building consent application as the proposal triggers the following reasons for a review.[6]

TABLE 5 Triggers For Fire And Emergency NZ Review	
Aspect	**Review Required**
Change Of Use, Alteration or Subdivision where the effect on specified systems relating fire safety is other than minor.	Tenancy change of use.
Waiver or Modification of Building Code Clause.	Not applicable.
Alternative Solution for compliance with NZBC C1-6, D1, F6 or F8.	ANAIRP approval needed from the BCA/TA, regarding retaining existing fire safety features, as covered in this report.

The purpose of the review is to advise directly to the Building Consent Authority where supplementary information may be required, and where information supplied in the building consent application may need enhancing.

5 Refer Section 75 of Fire and Emergency NZ Act 2017.
6 Refer Section 46 of the Building Act 2004 and gazette notice 49 page 1406 May 7th, 2012.

G1.3 When to send application to FENZ

The Building Consent Authority must, on receipt of an application for Building Consent, provide a copy of the application to Fire and Emergency NZ.

G1.4 Scope of the fire engineering unit advice

1. The Fire Engineering Unit may advise the Building Consent Authority within 10 working days on matters relating to 'provisions means of escape from fire' and the 'needs of persons who are authorised by law to enter the building to undertake fire-fighting'.[7]
1. The Building Consent Authority may proceed to determine the application without the advice if the Fire Engineering Unit does not provide the advice within the 10 working day timeframe.[8]
2. The advice received from the Fire Engineering Unit is not typically a regulatory review of all fire safety systems and therefore should not be relied upon as a thorough or complete peer review for all matters relating to fire safety and elimination of fire risk.
3. The Fire Engineering Unit should be careful referring directly to IPENZ Practice Note 22. The foreword to the Practice Note restricts itself from being used as professional or legal advice for compliance with the Building Act 2004.

G1.5 Additional requirements outside of the Building Code

Evacuation procedures, fire action notices and an approved evacuation scheme is not required for the owner/tenant to obtain a building consent, or to obtain a Code Compliance Certificate. Therefore; this fire analysis does not specifically address all the aspects for an evacuation scheme application. [9]

However; the building is still required to comply with the Fire and Emergency NZ Act 2017 prior to the building being occupied. Some matters are summarised below;

G1.5.1 Fire Extinguishers

Although not required for compliance with the Building Code, Fire and Emergency NZ Regulations[10] require fire extinguishers be provided in accordance with NZS4503:2005 in buildings that don't have a sprinkler system where FENZ consider a fire could affect means of escape from a dead end.

7 Refer Section 47(1) of the Building Act 2004
8 Refer Section 47(3) of the Building Act 2004
9 Refer Schedule 4 of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.
10 Refer Section 14 and 15 of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.

G1.5.2 Owner to provide evacuation procedures

Although not required for building consent, the owner is required to have an evacuation procedure in place for the safe, prompt, and efficient evacuation of the building's occupants in the event of a fire emergency requiring evacuation.[11] Information about the evacuation procedure is required to be readily available to the building's occupants, including information about;

- The routes of travel to the place or places of safety for the building,
- The alarm used or available for use by the occupants,
- Any firefighting equipment available for use by the occupants,
- Provisions for any person who requires particular assistance, and
- How to alert Fire and Emergency NZ to a fire emergency.

G1.5.3 Owner to provide evacuation signs

The owner of a building is required to erect signs and notices at appropriate places in the building that clearly summarise the matters above.[12]

Evacuation Signs and Notices must have a safety blue background with a white border, and have white text at least 5mm high on a safety blue background.[13]

G1.5.4 Packaging

Packing/unpacking of goods wrapped in flammable material, and storage of timber pallets, plastic packaging, plastic etc, may occur in the building provided that those spaces;

- Have no lighting or heating devices that could cause the material to ignite,
- Do not permit public to be admitted, and
- Do not permit smoking.[14]

G1.5.5 Storage of solid waste

Accumulated flammable rubbish/debris is not permitted to be stored within the building, and is not permitted outside the building in a way that would create a fire hazard to the building, other property or road.[15]

G1.5.6 Flammable materials

Flammable liquid must be stored in non-combustible containers with close fittings lids and must not be stored near or in the means of escape from fire.[16]

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11 Refer Section 7 of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.
12 Refer Section 7(4) of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.
13 Refer Section 7(5) of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.
14 Refer Section 12 of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.
15 Refer Section 13 of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.
16 Refer Section 6 of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.

G1.5.7 Owner to provide an approved Evacuation scheme

The owner of the building is required to notify Fire and Emergency NZ of any significant changes to the 'means of escape from fire' for the building to be lawfully used because the building is classified as 'relevant'.[17]

If a new scheme is required to be applied for, or Fire and Emergency NZ be notified of changes, the application / notification is required to be sent to Fire and Emergency NZ before (but not more than 30 workings days before) the date on which the building becomes relevant.[18]

G1.5.8 Wardens to be trained to assist occupants

Tenants, employees, owner representatives and hirers are to be trained to assist any other occupants of the building to evacuate the building in a fire emergency.[19]

G1.5.9 Owner to undertake trial evacuations

The owner of a building must undertake trial evacuations of the building's occupants at intervals of not more than 6 months, and notify Fire and Emergency NZ of the result in writing no later than 10 working days after the trial evacuation.[20]

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17 Refer Section 35 of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.
18 Refer Section 18(2)(b) of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.
19 Refer Clause 9(3) and 27(1)(a) of the Fire and Emergency NZ (Evacuation Procedures) Regulations 2018.
20 Refer Clause 29 and 32 of the Fire and Emergency NZ (Evacuation Procedures) Regulations 2018.

H EMERGENCY LIGHTING SPECIFICATION

H1 General

This specification shall not be read in isolation, but read in conjunction with all sections of this fire safety analysis and fire safety drawings.

H1.1 Scope

Emergency lighting is required to be installed on external escape routes within vicinity of the building, and on internal escape routes, in accordance with NZBC F6/AS1.

H1.2 Workmanship

Work on emergency lighting is required to be undertaken by a registered electrician in accordance with manufacturer's specifications, and to comply with NZBC G9.

The Contractor is required to supply all necessary as-built documentation as required to determine compliance of the systems and for ongoing maintenance to be achieved. The major objective is for workmanship to have a high inherent reliability.

H1.3 Durability

Emergency lighting components are required to have the minimum expected durabilities complying with NZBC B2/AS1. When the age of a system exceeds its durable life, it may require substantial or complete replacement to ensure the building is maintained in a complying state for the remainder of the specified life of the building. Complete or substantial replacement of a specified system is work that is not exempt from requiring a building consent.

H2 Design

H2.1 Illuminance

Powered emergency lighting is required to provide direct illuminance of no less than 0.2 Lux on level escape routes from the point where travel distance on escape routes exceeds 20 m to the nearest exit, and 1 Lux above steps, and above ramps steeper than 1:20.

H2.2 Emergency power supply

Each emergency light fitting shall have its own Nicad or Lithium Ion rechargeable power supply, integral with the fitting, continuously charged by mains power.

H2.3 Light output and duration

Powered emergency lighting is required to provide 10% of design illuminance in 0.5 seconds, 80% of design illuminance in 30 seconds, and maintain full illumination for no less than 30 minutes.

H2.4 Fittings and spacing

The tenant has nominated to install an illuminated exit sign as an extra safety measure. The fitting is a Spitfire emergency light specified by the designer.

H3 Maintenance and certification

H3.1 Installation, equipment and maintenance

Powered emergency lighting must be installed in accordance with AS 2293.1:2005 and AS2293.3:2005 Emergency Evacuation Lighting For Buildings as amended by NZBC F6/AS1 Appendix B, and NZBC G9/AS1 Electricity.

Powered emergency lighting shall be setup on a separate circuit for ease of testing. The test facility is required to be capable of being manually reset, but is also required to be provided with a system that automatically reverts mains power back to the emergency lighting at the conclusion of the 40 minute discharge test if mains power supply to the emergency lighting is not manually switched back on. The function of the test facility is required to be clearly identified eg “Emergency Lighting Test Switch”.

Powered emergency lighting must be maintained in accordance with AS/NZS2293.2:1995.

H3.2 Method of measurement

Powered emergency lighting illuminance must be measured in accordance with AS/NZS 1680 Interior Lighting Part 1. Measurements must be made;

1. At floor level further than 500 mm of vertical surfaces,
2. Once lamps are switched on and allowed to stabilise and
3. Without interference of daylight or from light spill from adjacent rooms.

H3.3 Required commissioning test

Powered emergency lighting is required to provide the required illuminance for a duration of no less than 40 minutes at time of commissioning and any change of batteries.

H3.4 Certification

The Declaration Of Compliance found in Appendix B of AS2293 Part 3 should be completed and issued to the owner to indicate the system is operating correctly when the work was commissioned.

I SIGNAGE SPECIFICATION

I1 General

This specification shall not be read in isolation, but read in conjunction with all sections of this fire safety analysis and fire safety drawings.

I1.1 Scope

- Install illuminated exit signs.
- Install signs at fire extinguishers as required by NZS4503:2005.

I1.2 Workmanship

Electrical work on signs is required to be undertaken by a registered electrician in accordance with manufacturer's specifications, and to comply with NZBC G9.

The Contractor is required to supply all necessary as-built documentation as required to determine compliance of the systems and for ongoing maintenance to be achieved. The major objective is for workmanship to have a high inherent reliability.

I1.3 Durability

Sign components are required to have the minimum expected durabilities complying with NZBC B2/AS1. When the age of a system exceeds its durable life, it may require substantial or complete replacement to ensure the building is maintained in a complying state for the remainder of the specified life of the building. Complete or substantial replacement of a specified system is work that is not exempt from requiring a building consent.

I2 Exit sign design

I2.1 Exit sign placement

As a minimum, fire exit signs are required to be positioned on a vertical surface within 600mm of doors to identify exit doors and the direction of escape which may not be visible in normal use, and to clearly indicate each exit door and doorway into a fire rated corridor.

The location of exit signs on the appended drawings are indicative and assumes visibility of exit signs will not be obstructed by other signage / banners, merchandise / stock, and shelving / racking.

Additional signage is required if these signs are obscured from view for any reason, or if escape route locations differ to those shown on appended drawing FA1.

I2.2 Wording

NZBC F8/AS1 requires the exit signs to display;

1. The running person pictogram, or
2. English text 'EXIT' with or without a running person pictogram, or
3. Māori text 'PUTANGA' plus either; English text 'EXIT' or a running person pictograms or both, or
4. any other language including Braille, plus one of the above.

Pictograms with directional arrows are required to have the running person symbol running the same direction as the arrow.

I2.3 Height and colour of lettering and pictograms

Signs are required to have white text on safety green background. Lettering will be Arial font or similar having complying proportions as indicated in NZBC F8/AS1 Table 1.

1. At a viewing distance of up to 16m, lettering is required to be at least 75 mm high.
2. Pictograms are required to be 25mm higher than lettering height.

I2.4 Sign illumination

Fire exit signs are required to be continuously powered (maintained) as the building requires Emergency Lighting.

1. Exit signs shall be internally illuminated to the minimum of 8cd/m2 within 25 mm of the sign except may be as low as 2cd/m2 signs within dimmed lighting conditions.
2. The light source that illuminates the fitting shall be on battery backup power supply that will automatically activate in the event of mains power supply failure and remain illuminated for a minimum duration of 30 minutes.
3. The light source shall comply with NZBC G9 and NZBC F6, AS 2293:2005 Parts 1 and 3, and AS/NZS 2293:2019 Part 2.

I3 Maintenance and certification

I3.1 Installation, maintenance and equipment

Powered illuminated exit signs must be installed in accordance with AS 2293.1:2005 and AS2293.3:2005 as amended by NZBC F6/AS1 Appendix B, and NZBC G9/AS1.

Powered illuminated exit signs must be setup on a separate circuit for ease of testing. The test facility is required to be capable of being manually reset, but is also required to be provided with a system that automatically reverts mains power back to the emergency lighting at the conclusion of the 40 minute discharge test if mains power supply to the emergency lighting is not manually switched back on. The function of the test facility is required to be clearly identified eg “Illuminated Exit Signs Test Switch”.

I3.2 Required commissioning test of illuminated signs

Illumination of exit signs is required to provide the required illuminance for a duration of no less than 40 minutes at time of commissioning and any change of batteries.

I3.3 Certification of illuminated exit signs

The Declaration Of Compliance found in Appendix B of AS2293 Part 3 should be completed and issued to the owner to indicate the system is operating correctly when the work was commissioned.

I3.4 Required as-built documentation

A maintenance manual and testing logbook, including lighting layout & type, circuit diagram, and location of distribution boards and testing equipment as required to be provided by the contractor by AS2293.1-2005 Section 8.2 & 8.3.

I3.5 Ongoing compliance

Illuminated exit signs have self contained batteries, and are not wired into a central backup power supply or to a backup power generator. Inspection, maintenance and reporting of self-contained batteries shall be in accordance with AS/NZS 2293.2:2005.

I4 Fire related safety features

I4.1 Fire extinguishers

The location of Fire Extinguishers shown on appended drawing FA1, are required by NZS4503:2005 to be identified with a white fire extinguisher symbol at least 135 mm high on a safety red background. Words area also required beneath the sign in accordance with NZS4503:2005. Lettering is required to be black at least 16 mm high on a white background. The sign is required to be at least 200mm x 400 mm. The base of the sign is required to be at eye level (between 1500 and 1800 mm above floor level).

NZBC F8/AS1 requires below fire extinguishers, words to be either;

1. English Text, 'FIRE EXTINGUISHER', or
2. Māori text 'KAIPATU AHI' in conjunction with English text 'FIRE EXTINGUISHER'.

☑ End of SIGNAGE SPECIFICATION

J HEALTH AND SAFETY AT WORK

J1 Responsibilities

J1.1.1 Limit of scope of engagement

The responsibility of the fire safety designer in relation to the scope of the work for which engaged, is for the design of the building fire safety only in accordance with NZBC C1-6 and F6-8 as required by the Building Act 2004. In terms of the engagement, responsibility does not extend to the design or use of plant or substances used within the building.

The responsibility for the design implementation or use of plant and substances used within the building will rest with the Building Owner, '*Person Conducting a Business or Undertaking*' (PCBU) and persons using or operating within the building. The ability to affect, influence or control potential health and safety risk(s) is beyond the power of the fire safety designer and beyond the scope of this fire safety analysis.

J1.1.2 Responsibilities

In terms of satisfying Section 39 of the Health and Safety at Work Act 2015, risk of death and risk of *'notifiable injury or notifiable illness'* [21] due to a fire affecting the structure is reduced by;

- The building being used strictly in accordance with the intended use, classification, design parameters, and the requirements of this fire report.
- Constructing or altering the building in strict accordance with the Building Act 2004.
- Following manufacturer's specifications and following safe practices provided in manufacturers Material Safety and Data Sheets.
- Following the PCBU safety management strategy in accordance with the Health and Safety at Work Act 2015.
- Following safe construction hazard procedures as noted in Section J2 - Reducing fire hazard during construction.
- Workers taking reasonable care for their own health and safety, ensuring their actions don't adversely affect the health and safety of others, and by following Worksafe safe practice guidelines.
- The owner fulfilling all legislative responsibilities (ie Hazardous Substance And New Organism Act 1996, Health And Safety At Work Act 2015),
- Undertaking preventative maintenance in a timely manner.

[21] As defined by Section 23 of the Health And Safety At Work Act 2015

J2 Reducing fire hazard during construction

J2.1.1 Risk to persons inside the building

- Enclose works with solid partitioning / hoarding barriers in accordance with NZBC F5 to prevent public access into the worksite.
- Keep hoarding clear of evacuation lanes, and fire safety features.
- If the building is open to members of the public prior to Code Compliance Certificate being issued, the Contractor is required to obtain a Certificate of Public Use and the Territorial Authority is required to be satisfied on reasonable grounds that members of the public can use the building or part of the building safely.

J2.1.2 Risk to public outside the building

- Provide site fencing in accordance with NZBC F5 to prevent public access where specific hazards occur if there is a risk of public entering the construction site while contractors are not present.

J2.1.3 Partial operation of the fire alarm system

None. The building does not have a fire alarm system.

J2.1.4 Partial operation of the fire sprinkler system

None. The building does not have sprinkler system.

J2.1.5 Hotwork

- A hotworks permit should be provided for all hotwork, graded as required for the severity of the hazard. The hotworks permit should be a double tag system that requires the site supervisor to reinspect the hotworks after completion for the permit to be closed out.
- A 'fire watcher' should be in attendance for the full duration of the work.
- Ensure the area of work is clear of combustible material
- Ensure a suitable fire extinguisher is readily accessible by the 'fire watcher'.

J2.1.6 Storage or work on combustible materials, packaging and waste

- Ensure a suitable fire extinguisher is readily accessible.
- All people present are trained in the use of the equipment, and trained to be familiar with evacuation procedures. Reduce amount of combustible packaging used.
- Remove waste from the site regularly and only store in a manner that would not create a hazard to the building, other property, or public spaces.

J2.1.7 Suspended fabrics and plastics

- Temporarily suspended fabrics and plastics used during construction as visual barriers, protection from weather, protection from dust, etc must be fire retardant having a flammability index of 12 or less.

J2.1.8 Evacuation procedures

- The PCBU must ensure an emergency plan is prepared and maintained for the workplace as required by Regulation 10 and 14 of the Health and Safety at Work Act (General Risk & Workplace Management) Regulations 2016.

J2.1.9 Other hazards

- A person must take reasonable care of their own health and safety.
- The PCBU is required to ensure that reasonable and practicable procedures are in place for all construction work (such as; working at height, confined spaces, presence of asbestos) so that risk of injury & illness are eliminated, isolated and/or minimised in accordance with the Health And Safety At Work Act 2015.

End of HEALTH AND SAFETY AT WORK

K INSPECTIONS AND DECLARATIONS

K1 Minimum fire safety inspections by BCA

Under Section 14F of the Building Act 2004, it is the responsibility of the Building Consent Authority to check building work has been carried out in accordance with the building consent.

The table below summarises the minimum Building Consent Authority inspections required during construction relating to the proposed building work and compliance with NZBC C1-6 and F6-8. They form part of the definition of Plans and Specifications setout in Section 7 of the Building Act 2004.

TABLE 8 Building Consent Authority Inspections

Inspection	Trade	Element To Be Inspected
Final inspection	Carpentry	Safe and easy to use access routes into and within the building.
		Door handles. Door locking devices.
		Escape route width and door clear opening width.
		Foamed plastics flame barriers.
		Penetration locations and firestopping.
		Foam plastic barriers.
	Painting	New internal finishes.
	Flooring	New floor finishes.
	Gas fitter	Appliances installed correctly and provided with adequate ventilation.
	Electrician	Emergency lighting type and location.
		Illuminated exit sign type and location.
		New recessed lighting type and clearances from combustible material.

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K2 Required installers declarations from contractors

The following list of installers declarations and completion certificates are a requirement of the installation standard or regulation to which they relate and must be provided to the owner at the commissioning of the systems.

TABLE 9 Required Installers Declarations Of Compliance

Fire Safety Feature	Required Declarations
Emergency Lighting	AS2293.3:2005 appendix B declaration of compliance (as a guide)
Illuminated Exit Signs	AS2293.3:2005 appendix B declaration of compliance (as a guide)
Firestopping	Contractors Installers Declaration
Electrical Appliances and Fittings	Registered electrician's Certificate Of Compliance
Hand Held Fire Fighting Equipment	Contractors Installers Declaration
Gas Appliances	Registered gasfitters energy works certificate

☑ **End of INSPECTIONS AND DECLARATIONS**

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L MAINTENANCE

L1 Specified System Maintenance – Compliance Schedule

The following tables provide the Type, Functions, Performance Standards, Scheduled Inspection, Maintenance and Reporting procedures for fire safety Specified Systems within the building as required by NZBC B2/AS1 para 2.2. Numbering of specified systems follows the regulated system setout in Schedule 1 of the Building (Specified Systems) Regulations 2005.

TABLE 6	**SS3 – Electromagnetic or Automatic doors or windows**			
System	TYPE Automatic doors		AFFECT Existing unaltered	
Description	EMERGENCY OVERIDE Press-button override.		POWER SUPPLY Mains power with emergency backup battery power supply.	
Location	Main entry as shown on Drawing FA1.			
Make/Model	Unknown.			
Performance, Inspections & Frequency	PERFORMANCE STANDARD NZS4239	YEAR 1993	MODIFIED BY -	YEAR -
	INSPECTION, MAINTENANCE AND REPORTING STANDARD NZS4239 Appendix A	YEAR 1993	MODIFIED BY -	YEAR -
	INSPECTION - YEARLY Full system and interfacing.		RESPONSIBILITY SS2 Independently Qualified Person	
Inspection & Maintenance Procedures	Planned preventative maintenance and responsive maintenance will be carried out in accordance with the nominated performance and inspection Standard/document, to ensure the system will operate as required in the event of a fire or other danger.			
Reporting Procedures	The owner will keep records of all inspections, maintenance and repairs undertaken in the previous 24 months. These will be recorded in the on-site logbook, which will remain on the premises with the most recent compliance schedule, and as a minimum include: • Details of any inspection, test or preventative maintenance carried out, including dates, works undertaken, faults found, remedies applied and the person who performed the work. • Form 12A provided annually by the IQP.			

TABLE 10 SS4 – Emergency Lighting				
System	TYPE		AFFECT	
	Emergency lighting with self-contained batteries.		Existing modified	
Activation	Upon power supply failure to circuit.			
Location	As shown on drawing FA1.			
Performance, Inspections & Frequency	PERFORMANCE STANDARD	YEAR	MODIFIED BY	YEAR
	AS2293 Parts 1 and 3	2005	NZBC F6/AS1 Appendix B	2017
	INSPECTION, MAINTENANCE AND REPORTING STANDARD	YEAR	MODIFIED BY	YEAR
	AS2293 Part 2	1995	-	-
	INSPECTION – 6 MONTHLY		RESPONSIBILITY	
	Para 3.2 (battery discharge test each fitting)		SS4 Independently Qualified Person	
	INSPECTION – ANNUALLY		RESPONSIBILITY	
	Para 3.3 (full system)		SS4 Independently Qualified Person	
Inspection & Maintenance Procedures	Planned preventative maintenance and responsive maintenance will be carried out in accordance with the nominated performance and inspection Standard/document, to ensure the system will operate as required in the event of a fire or other danger.			
Reporting Procedures	The owner will keep records of all inspections, maintenance and repairs undertaken in the previous 24 months. These will be recorded in the on-site logbook, which will remain on the premises with the most recent compliance schedule, and as a minimum include: • Details of any inspection, test or preventative maintenance carried out, including dates, works undertaken, faults found, remedies applied and the person who performed the work. • Form 12A provided annually by the IQP.			

TABLE 11 SS14 – Emergency power relating to SS1-13

Emergency lighting and illuminated exit sign batteries	TYPE		AFFECT	
	Battery backup power supplies within emergency lighting and illuminated exit sign fittings.		Existing modified	
	PERFORMANCE STANDARD	YEAR	MODIFIED BY	YEAR
	AS2293 Parts 1 and 3	2005	NZBC F6/AS1 and F8/AS1	2017
	INSPECTION, MAINTENANCE AND REPORTING STANDARD	YEAR	MODIFIED BY	YEAR
	AS/NZS2293 Part 2	1995	NZBC F6/AS1	2017
	INSPECTION – 6 MONTHLY		RESPONSIBILITY	
	Para 3.2 (battery discharge test)		SS4 Independently Qualified Person	
Autodoor battery	TYPE		AFFECT	
	Battery backup power supply as part of the automatic door		Existing modified	
	PERFORMANCE STANDARD	YEAR	MODIFIED BY	YEAR
	NZS4239	1993		
	INSPECTION, MAINTENANCE AND REPORTING STANDARD	YEAR	MODIFIED BY	YEAR
	NZS4239 Appendix A	1993		
	INSPECTION - ANNUALLY		RESPONSIBILITY	
	Para A2.3e (power supplies)		SS3 Independently Qualified Person	
Inspection & Maintenance Procedures	Planned preventative maintenance and responsive maintenance will be carried out in accordance with the nominated performance and inspection Standard/document, to ensure the system will operate as required in the event of a fire or other danger.			
Reporting Procedures	The owner will keep records of all inspections, maintenance and repairs undertaken in the previous 24 months. These will be recorded in the on-site logbook, which will remain on the premises with the most recent compliance schedule, and as a minimum include: • Details of any inspection, test or preventative maintenance carried out, including dates, works undertaken, faults found, remedies applied and the person who performed the work. • Form 12A provided annually by the IQP.			

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TABLE 7	SS14 – Signs relating to SS1-13			
Automatic door override button sign	TYPE		AFFECT	
	Signs indicating the operation of automatic door override buttons.		Existing unaltered	
	PERFORMANCE STANDARD	YEAR	MODIFIED BY	YEAR
	NZS4239	1993	-	-
	INSPECTION, MAINTENANCE AND REPORTING PROCEDURE	YEAR	MODIFIED BY	YEAR
	NZS4239 Appendix A	1993	-	-
	INSPECTION – ANNUALLY		RESPONSIBILITY	
	Para A2.3d (operation of override points).		SS3 Independently Qualified Person	
Inspection & Maintenance Procedures	Planned preventative maintenance and responsive maintenance will be carried out in accordance with the nominated performance and inspection Standard/document, to ensure the system will operate as required in the event of a fire or other danger.			
Reporting Procedures	The owner will keep records of all inspections, maintenance and repairs undertaken in the previous 24 months. These will be recorded in the on-site logbook, which will remain on the premises with the most recent compliance schedule, and as a minimum include: • Details of any inspection, test or preventative maintenance carried out, including dates, works undertaken, faults found, remedies applied and the person who performed the work. • Form 12A provided annually by the IQP.			

TABLE 12 SS15b – Final exits (as defined in NZBC clause A2) and Exit Doors

Final Exits	TYPE		AFFECT	
	A Final Exit is the point at which there is direct access to a Safe Place. A Safe Place is an Open Space away from the building where occupants meet at an assembly point during an evacuation and may then freely disperse after escaping the effects of fire.		Existing unaltered	
	LOCATION		HARDWARE	
	Final Exits doors from the building are exterior doors on the escape route that lead out of the building as shown on the fire drawing. Safe places are on the footpath on the Street away from canopies.		Building has free handle door hardware, or snib type locking devices.	
	PERFORMANCE STANDARD	YEAR	MODIFIED BY	YEAR
	NZBC C/AS2 Part 3 Para 3.15	2020	-	-
	AS1851 Para J2	2012	-	-
	INSPECTION, MAINTENANCE AND REPORTING PROCEDURE		MODIFIED BY	YEAR
	• Ensure the exit doors are easy to open, are free from obstruction and are not blocked, locked or barred. • Escape routes are clearly identified and are free of obstructions.		-	-
	INSPECTION - EVERYDAY		RESPONSIBILITY	
	Exit doors are not locked, barred or blocked. Locking devices can be operated without a key, swipe card, or pin.		Owner	
	INSPECTION - MONTHLY		RESPONSIBILITY	
	The escape route to a Safe Place is kept clear and clean. Flammable substances and waste are not stored near to the escape route to a Safe Place.		SS15b Independently Qualified Person	
Inspection & Maintenance Procedures	Planned preventative maintenance and responsive maintenance will be carried out in accordance with the nominated performance and inspection Standard/document, to ensure the system will operate as required in the event of a fire or other danger.			
Reporting Procedures	The owner will keep records of all inspections, maintenance and repairs undertaken in the previous 24 months. These will be recorded in the on-site logbook, which will remain on the premises with the most recent compliance schedule, and as a minimum include: • Details of any inspection, test or preventative maintenance carried out, including dates, works undertaken, faults found, remedies applied and the person who performed the work. • Form 12A provided annually by the IQP.			

TABLE 13	**SS15d – Sign for communicating evacuation information**			
System	TYPE		AFFECT	
	Continuously illuminated exit signs.		Existing modified	
Location	As shown on drawing FA1.			
Performance, Inspections & Frequency	PERFORMANCE STANDARD	YEAR	MODIFIED BY	YEAR
	AS2293 Parts 1 and 3	2005	NZBC F6/AS1 Appendix B and F8/AS1 Appendix A	2017
	INSPECTION, MAINTENANCE AND REPORTING STANDARD	YEAR	MODIFIED BY	YEAR
	AS2293 Part 2	1995	-	-
	INSPECTION - EVERYDAY		RESPONSIBILITY	
	Signs are present in correct locations, are lit and their visibility is not obstructed.		Owner	
	INSPECTION – 6 MONTHLY		RESPONSIBILITY	
	Para 3.2 (battery discharge test each fitting)		SS15d Independently Qualified Person	
	INSPECTION - ANNUALLY		RESPONSIBILITY	
	Para 3.3 (full system)		SS15d Independently Qualified Person	
Inspection & Maintenance Procedures	Planned preventative maintenance and responsive maintenance will be carried out in accordance with the nominated performance and inspection Standard/document, to ensure the system will operate as required in the event of a fire or other danger.			
Reporting Procedures	The owner will keep records of all inspections, maintenance and repairs undertaken in the previous 24 months. These will be recorded in the on-site logbook, which will remain on the premises with the most recent compliance schedule, and as a minimum include: • Details of any inspection, test or preventative maintenance carried out, including dates, works undertaken, faults found, remedies applied and the person who performed the work. • Form 12A provided annually by the IQP.			

L2 Legislation relating to the compliance schedule

L2.1 Obtaining a compliance schedule

The owner has responsibility of obtaining the Compliance Schedule,[22] and the Building Consent Authority has the responsibility of issuing it with the Code Compliance Certificate.[23]

L2.2 Regular inspections and maintenance

The owner is required to ensure each Specified System stated in the Compliance Schedule be regularly inspected and maintained to ensure the Specified Systems performs, and continues to perform, to the Specified System's Performance Standards.[24]

L2.3 Keep records

The owner must obtain reports relating to the inspection, maintenance and reporting procedures of the Compliance Schedule signed by each Independent Qualified Person, keep those records and the Compliance Schedule for 2 years, and show on the Building Warrant of Fitness the location of where the reports and Compliance Schedule are kept.[25]

L2.4 Display the compliance schedule statement

For the first 12 months of the period of the Compliance Schedule, the owner is required to display, in an accessible location, a Compliance Schedule Statement issued by the Territorial Authority stating the specified systems covered by the Compliance Schedule and the place where the Compliance Schedule is kept. [26]

L2.5 Supply an annual building warrant of fitness

The owner of a building is required to supply an annual Building Warrant of Fitness to the Territorial Authority, on the anniversary of issuing the Compliance Schedule.[27]

The owner is required to display a copy of the Building Warrant of Fitness in an accessible location. The Building Warrant of Fitness must have attached to it all certificates, issued by a Independent Qualified Person that, when those certificates are considered together, certify that the inspection, maintenance and reporting procedures stated in the Compliance Schedule have been fully complied with during the previous 12 months.[28]

[22] Section 101(1) and 102 of The Building Act 2004
[23] Section 101(1) of the Building Act 2004
[24] Section 105(a) of The Building Act 2004
[25] Section 110 of the Building Act 2004

[26] Section 105(e) of The Building Act 2004
[27] Section 105(b) and 108 of The Building Act 2004
[28] Section 108(3) of The Building Act 2004

L3 Normal maintenance

The following table is a non-exhaustive list of fire safety related building elements that require normal maintenance undertaken by the owner as required by NZBC B2/AS1 para 2.1.

The owner should undertake regular preventative maintenance as often as is reasonably practicable, as the situation arises, but no less frequent than would cause a defect / fault to be undetected during the normal use of the building.

TABLE 14 Normal Fire Safety Maintenance

Element	Inspection	Frequency and responsibility
Fire rating of exterior walls.	Condition of concrete panel and brick. Firestopping of penetrations.	6 monthly inspections by the owner.
Final Exits located outside of the building	Regulation 5 of the FENZ (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.	Daily inspections by the owner whenever the building is occupied.
Internal and external escape routes kept clear at all times.	Internal corridors kept clear of goods, waste and flammable material. Exterior escape routes kept clear of parked vehicles and stacked goods.	Daily inspections by the owner whenever the building is occupied.
Escape routes are kept clean and slip resistant.	Escape routes are swept free of dust and cleaned to be free of oil and algae.	Daily inspections by the owner whenever the building is occupied.
Door handles and locking devices are the correct types.	Doors have simple fasteners that don't require keys to unlock when the building is occupied.	Inspections by the owner everyday the building is occupied.
Fire Extinguishers	Extinguishers are clean and not damaged. Signage is correctly displayed. Check pressure gauge shows correct operating pressure. Annual weighing to check contents and discharge test.	Inspections by a fire extinguisher inspecting authority.

☑ End of MAINTENANCE

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M DECLARATION

M1.1 Inspections and construction monitoring

All inspections in relation to compliance will be undertaken by the Building Consent Authority, with compliance contingent upon the Building Consent Authority confirming that the requirements of this report are properly completed.

M1.2 Performance of products and systems

Objective Corporation Solutions NZ Limited places full reliance on the performance of the proprietary systems to achieve the stated performance in accordance with the NZ Building Code and accepts no liability for faulty workmanship, misrepresentation in product literature, or product failure.

M1.3 Modification and variations

Modifications and on-site changes that vary from this fire analysis are not permitted unless Objective Corporation Solutions NZ Limited first gives written approval. In almost all cases, the report will require updating and the building consent amended, prior to changes occurring on site, including substitution of any materials or repositioning of fire safety features.

M1.4 Use of the report

This report has been prepared solely for the benefit of the Owner, the Designer, the Contractor, the Building Consent Authority, the Territorial Authority, and future IQPs with respect to the purpose and engagement of this analysis. Any other person our party who relies upon any matter contained in this report does so entirely at their own risk. Those involved with the project are expected to have read this report and have incorporated the relevant fire safety requirements into their work.

It is critical this report is circulated to all persons involved with the project and to those involved with the ongoing maintenance of the building.

If there is any doubt to the interpretation or application of the requirements of this report, the consultant shall be contacted immediately, and the issue clarified, prior to construction continuing.

For and acting on behalf of Objective Corporation Solutions NZ Limited

Josh Kendall
Fire Safety Specialist

Level 2, 17 Victoria Avenue
PO Box 8067 Palmerston North
P 06 354 9909
E Joshua.Kendall@objective.com

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DRAWING LIST

#	SHEET NAME	ISSUE DATE	REV
A000	COVERPAGE	16_02_22	
A001	PROJECT NOTES	16_02_22	
A100	LOCATION PLAN	16_02_22	
A103	EXISTING PLAN	16_02_22	
A105	FLOOR PLAN	16_02_22	
A106	SET OUT PLAN	16_02_22	
A107	FLOOR FINISHES PLAN	16_02_22	
A108	ELECTRICAL & DATA PLAN	16_02_22	
A109	REFLECTED CEILING PLAN	16_02_22	
A110	ACCESSIBLE PLAN	16_02_22	
A120	ELEVATIONS	16_02_22	
A121	ELEVATIONS	16_02_22	
A123	ELEVATIONS	16_02_22	
A130	EQUIPMENT SCHEDULE	16_02_22	
A140	3D VISUALS	16_02_22	
A141	3D VISUALS	16_02_22	
A142	3D VISUALS	16_02_22	
A143	3D VISUALS	16_02_22	
A144	3D VISUALS	16_02_22	
A150	DETAILS	16_02_22	
A151	DETAILS	16_02_22	
A152	DETAILS	16_02_22	
A153	DETAILS	16_02_22	
A154	DETAILS	16_02_22	
A155	DETAILS	16_02_22	
A160	COLDROOM DETAIL	16_02_22	
A161	COLDROOM DETAIL	16_02_22	
A162	COLDROOM DETAIL	16_02_22	
A163	COLDROOM DETAIL	16_02_22	
A164	COLDROOM NOTES	16_02_22	

Domino's®

DOCUMENT ISSUE & APPROVALS

ISSUED TO	ISSUE/ APPROVAL	DATE
NATIONAL OPERATIONS		
FRANCHISEE		
SHOPFITTER		
LANDLORD		
-		
DEVELOPMENT		
OPERATIONS		
PROJECT MANAGER		

NOTE
_Drawings to be read in conjunction with all supporting documentation including HVAC, Drainage, Fire engineering etc.

DISCLAIMER
_All dimensions must be checked on site before commencement of construction or manufacturing of any item or equipment
_Do not scale drawing, use dimensions indicated.

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DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

16_02_22

BUILDING CONSENT

GENERAL NOTES
_All FFL's & dimensions are based on information provided by the centre or client. Verify on site before commencement of any works.
_It is the contractors responsibility to confirm all site conditions & requirements.
_Failure to comply with drawings & specifications could result in alterations being made at the cost to the contractor.
_These drawings must be read on conjunction with all relevant consultant's drawings & specifications including, structural, mechanical & hydraulic.
_Contractor to comply with current health & safety regulations at all time.
_Before commencement of demolition works the contractor must contact the consultant engineer to establish which walls, etc are able to be safely removed.
_Non-slip finishes to be provided to all steps, ramps & landings.
_Confirm with shopping centre management prior to chasing floor slab to determine any structural limitations on size & location of chases where applicable.
_Ensure that the installation of equipment for the storage of food is capable of being moved easily so that the area underneath can be easily cleaned.
_If fire sprinklers are not shown by centre existing sprinkler heads to be protected during construction. Do not pant sprinkler heads.
_All floor finishes must be finished flush with adjacent finish - use 3mm satin finish aluminium angle to all joints to provide a level junction.
_Entry floor covering to be finished flush with mall or exterior floor finish.
_Base building fire safety systems are not to be affected by any part of tenancy fitout.
_All work to be in accordance with the local authority & the centre fit-out guide.
_All new glazing to be installed in accordance with as1288. Ensure minimum 75mm wide decal is provided to full height glazing located between 900-1000mm from finished floor level.
_AS4674 - design & construction of a food premises
_AS1428.1 - design for access & mobility
_NZS 4121:2001 - disabled access & mobility
_Class '6' building under NCC standards

The plans as shown are subject to council approval and may change. Please work off the stamped plans provided by the client.

DOMINOS OVEN INSTALLATION AND VENTILATION SCOPE OF WORKS

SHOPFITTERS SITE SUPERVISOR'S RESPONSIBILITIES
_Notify the oven supplier when gas is connected and available.
_Ensure that the ventilation has been installed and commissioned prior to the oven tech attending for oven commissioning.
_Ensure that the site electrician, ventilation technician and oven technician are on site at the same time for the oven commissioning.
_Ensure that the services pole is installed correctly and ready prior to this scope of works.
_Liaise and ensure that all trades work together.

SHOPFITTERS ELECTRICIAN'S SCOPE
_Fit the ventilation control box to the services pole. The top of the box must not be higher than 2 meters and must be mounted in a manner to not impede any walkways.
_Supply and install one RCD protected, 3 phase, 16 amp, neutral and earth supply to the ventilation control box. This is to be terminated at the main circuit breaker / main switch in the ventilation box.
_Supply and install a 3 phase 10-amp cable from both the exhaust and fresh air fan contactors to 3 a phase isolator located adjacent each fan.
_Connect from the 3 phase isolators to both the exhaust and fresh air fans.
_Select the correct overload from the range supplied.
_Adjust the overload to suit the fan installed.
_Supply and install 3 x single phase 10-amp RCD protected GPO's on the services pole. Each GPO is to be on a separate circuit. The position of the GPO's is not to impede the location of the gas taps or ventilation control box.
_Provide a single-phase circuit to the connection box at the rear of the hood for the hood lighting. This circuit will be added to the store light RCD protected circuit.

GAS FITTER
_Supply and install a gas supply to 600mj per hour.
_Ensure that the supply pressure requirements are met at full gas rate.
_Supply and install 3 x ¾ BSP thread gas taps on the services pole (not compression). Stores must be able to accommodate the possibility of 3 ovens.
_The oven gas supply fitting line must be enclosed within the services pole.
_Supply and install a compliant restraint chain for the ovens.

VENTILATION TECHNICIAN'S SCOPE
_Install the air pressure switches supplied with the ventilation box to both the fresh air and exhaust ducts.
_Connect the supplied cable from the air pressure switches to the designated terminals in the ventilation control box.
_Check the direction of rotation of both the fresh air and exhaust fans.
_Commission the ventilation system. This includes ensuring that both pressure switches operate when the fans run and deactivate when the fans stop.

OVEN TECHNICIAN'S SCOPE
_Ensure that gas is connected and available prior to site attendance.
_Ensure that the ventilation control box has been installed and commissioned prior to attendance.
_Assemble and install the ovens and hood if applicable.
_Perform the interconnection between the ventilation control box and the ovens.
_Check that when either the fresh air or ventilation fans are stopped, the ovens do not heat.
_Commission the ovens
_Cook testing to dominos representative's satisfaction.

PLUMBING SPECIFICATIONS
_All hydraulic works to be carried out in accordance with AS/NZS 3500: 2015 & to the satisfaction of the local authority.
_All vent pipes shall terminate above in accordance with AS/NZS 3500: 2015
_All gas services shall be installed to comply with AS/NZS 5601.1: 2010 part 1 general installations, amendment 1 as referenced in G10 and G11 of the NZ building code
_All service must be copper pipe unless otherwise specified.
_Run 50mm copper pipe into cold room clipped off the ceiling running end to end of the room at approx. 150mm crs. The water will have a stop cock & in line 'Aqua-pure AP11T filter housing with an AP117 carbon cartridge filter' mounted at the side of the cold room between the dough mixer & dough production bench. The tap fitting at this point will be a chrome finished quarter turn hose cock (ball valve) fitted with a domestic laundry 2 piece folding arm spout.
_The tundish for the make line is to be 300mm from the right-hand end of the unit (where applicable).
_PVC pipe may be used for the plumbing under the sinks including wash up. The PVC pipe used must meet with council approval & requirement.
_The hand basin in customer view the pipe must be chrome.
_In-sink bucket traps must be installed to wash up sinks.
_All hand basins must be Stoddart's knee operated hand basins.

ELECTRICAL SPECIFICATION
_Electrical fit out is to include connection of all electrical equipment, data cabling and telephone cabling ready for use. All circuits are to be balanced, with an individual circuit to suit all computers and all associated equipment.
_Adequate supply of power must be supplied to the store, including 3 phase mains supply location and distance from premises.
_A power supply of 80 amps per phase, 3 phase to a 48 pole Clipsal domestic switchboard. Surge protectors must be fitted to all major equipment.
_All 240v equipment in store to be tested and tagged by an electrician
_All connections for signage must be verified with the signage contractor prior to connection. **All signage to be on a dedicated circuit at the switch board.**
_All GPO's are 10 amps unless otherwise specified.
_All circuit breakers must clearly tagged with a clear legible legend, attached to inside of cabinet.
_Commercial type metallic enclosure switchboards shall be used.
_All power outlets dedicated to computer associated equipment must be identified by a red face plate.
_All data points terminate to either a 16 or 24 port patch panel - dependent on store specification.
_All cable runs shall be cat 5 or cat 6 cable unless specified
_All data points should originate from the data cabinet, and all data points should terminate in locations as identified on site plan.
_The caller id box must be installed next to the IDF. Location of the IDF must be verified on site before construction. Cabler to install parallel phone line connections cables to each PSTN phone line. The cable is to be 1 - 2 meters in length terminating in a male rj-12 plug (as per standard phone cable)
_To comply with NZBC G9 the electrical installation is to:
1.comply with AS/NZS3000:2007 electrical installations
2 a) All light switches shall be horizontally aligned with door handles.
b) The toggle, rocker, push pad, or push button control of light switches shall project clear of the switch plate.
c) Socket outlets shall be fixed between 500mm and 1200mm above the finished floor level if suitable. This shall not apply in damp situations where the location of the light switch and plug sockets conflicts with AS/NZS3000
_Artificial lighting complying with NZBC G8 to be provided on access route

AIR - CONDITIONING SPECIFICATIONS
_Ducted reverse cycle system of 42kw cooling capacity per 100sqm (420 watts/sqm) Daikin or APAC carrier units must be used, the air-conditioning register over makeline must be half closed & directed away from makeline.

PIZZA OVEN & EXHAUST SPECIFICATIONS
_XLT 3870 - double stack to be installed.
_Requirements per oven (double/ triple below information dependent on # of ovens to be installed)
_Gas - 200mj/hr
_Gas inlet fitting - 3/4"
_Electrical - 10a 240vac 50hz 1Ø
_AVI exhaust canopy system is to be used. A Penn P32 series differential switch must be installed to both supply & make air.
_Bottom edge of canopy is to be 2000mm from FFL.
_Centralise the cooking chamber of the oven (entry & exit of the oven) with the exhaust canopy if a conventional canopy is used. Do not centralise the oven with the canopy.
_The canopy must be 150mm wider than the area of the ovens.
_The exhaust outlet & supply inlet must be 6000mm apart.
_Canopy & ducting must comply with as1668 parts 1 & 2
_Refer to conventional exhaust canopy specifications.
_Installers to provide certification.

FLOOR FINISHING SPECIFICATIONS
_Stainless steel capping to be installed on the end of each partition & to run from FFL to ceiling
_Falls to floor waste must not affect the levelling of any major equipment.
_Floors to be non-slip as required under AS4586:1999 & AS3661.

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DOMINO'S PIZZA ENTERPRISES LIMITED
DOMINO'S WAIPUKARAU
63 RUATANIWHA STREET, WAIPUKURAU 4200

Scale: 1 : 1 | Sheet Size: A3 | Issue Date: 16_02_22

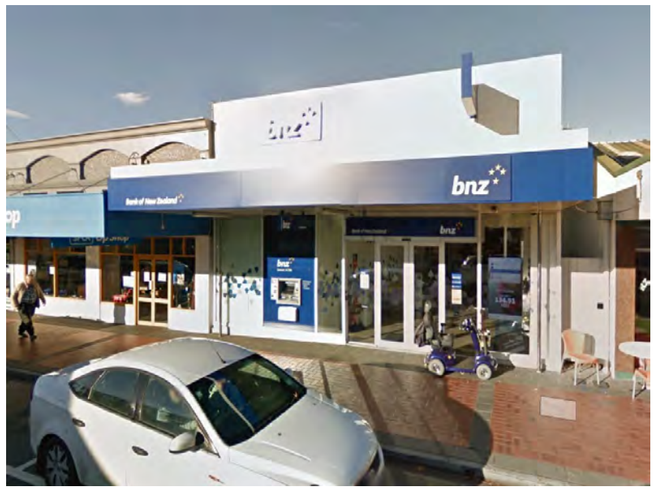
PROJECT NOTES

Drawing No: A001 | Revision:

Parcel ID	4206584
Address	63 Ruataniwha Street, Waipukurau
Assessment	1088011600
House No	63
Street Name	Ruataniwha Street, Waipukurau
Certificate Of Title	V2/379
Legal Description	LOT 2 DP 24265

Project Scope

New Domino's store as per plans, site is an existing structure, previously a BNZ bank. Proposed will include new extraction system and modification of other specified systems.



1 LOCATION PLAN
A100 NTS

2 EXTERIOR ENTRANCE
A100 NTS

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DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

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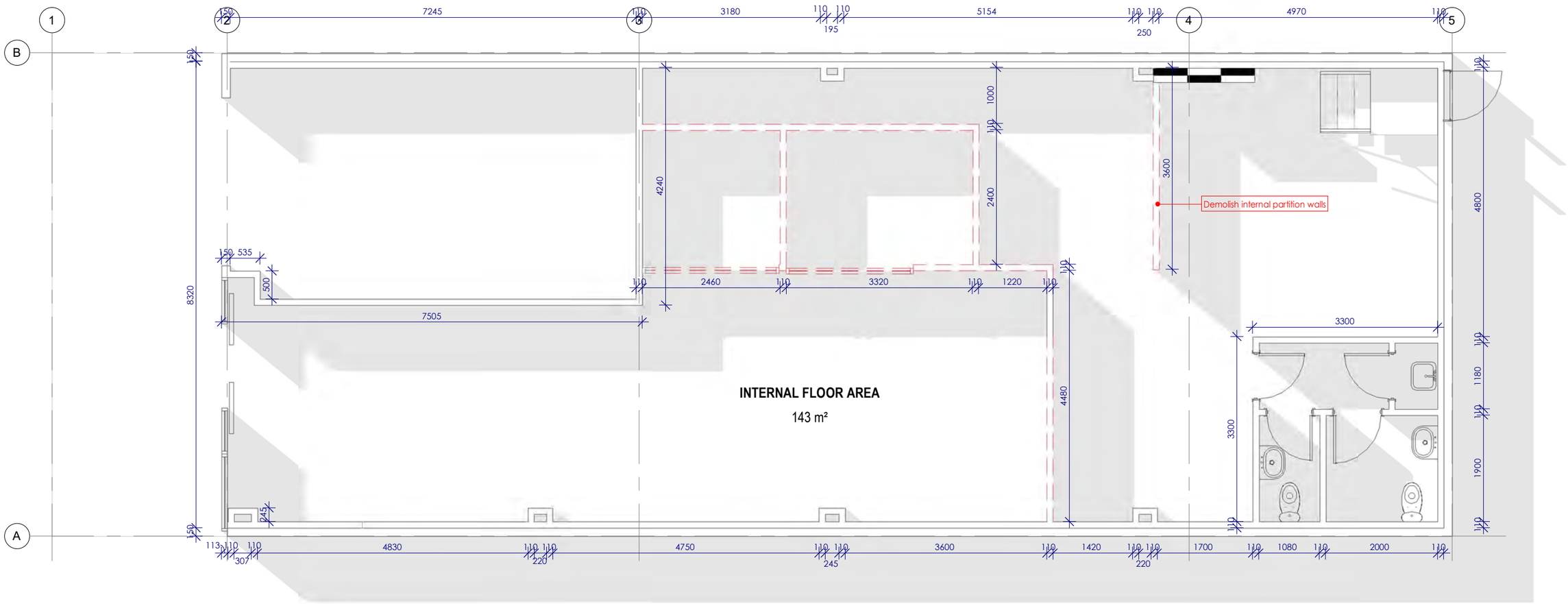
LOCATION PLAN

Drawing No: A100 Revision:

Scale: NTS Sheet Size: A3 Issue Date: 16_02_22



1 EXISTING FLOOR PLAN
A103
1 : 75

NOTES

1. Refer to sheet A130 for equipment schedules
2. Check all site dimensions before construction & the ordering of any equipment. All dimensions are from face of finished wall
3. All walls to be of solid core construction to comply with AS4674-2004
4. Refer to sheets A001 for notes and specification & A150 for additional details

WALL LEGEND

- Walls to be demolished/ equipment to be removed
- Existing wall
- Proposed wall
- Coolroom wall

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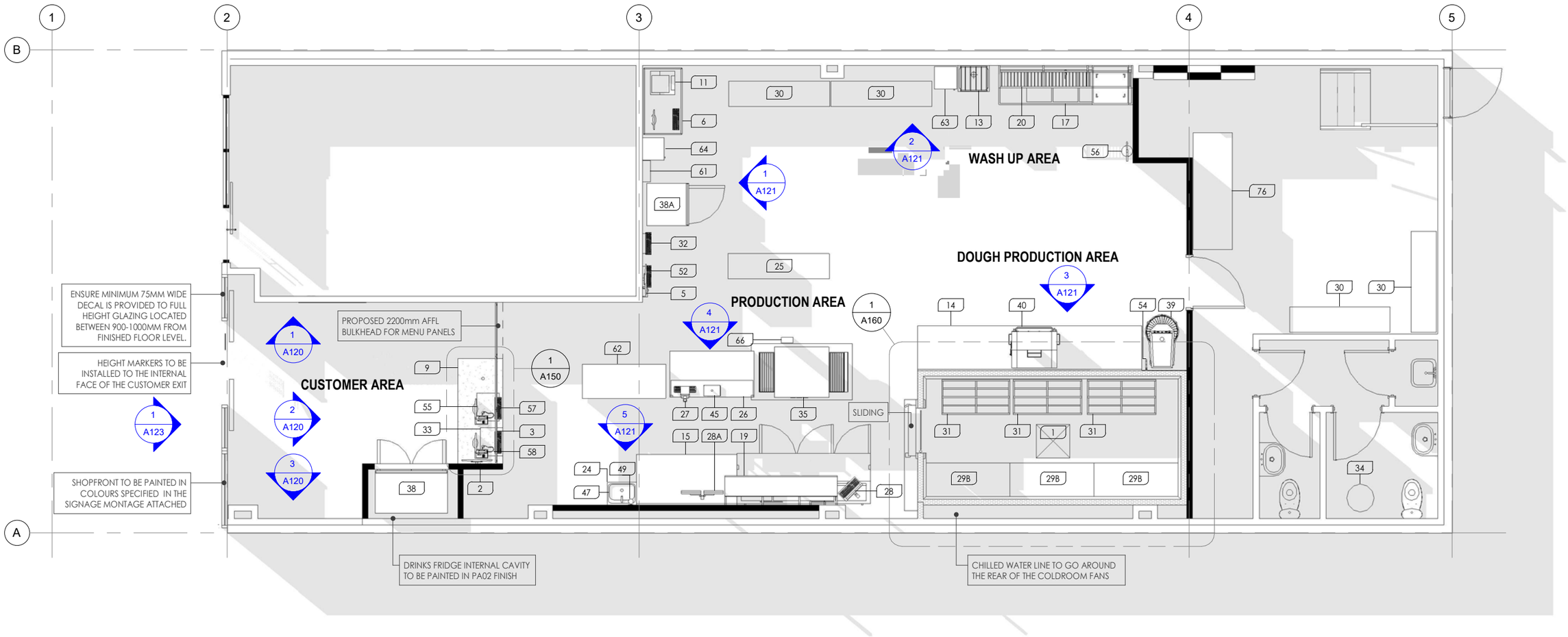
Scale: As indicated | Sheet Size: A3 | Issue Date: 16_02_22

EXISTING PLAN

Drawing No: A103 | Revision:



1 PROPOSED FLOOR PLAN

A105

1 : 75

NOTES

1. Refer to sheet A130 for equipment schedules
2. Check all site dimensions before construction & the ordering of any equipment. All dimensions are from face of finished wall
3. All walls to be of solid core construction to comply with AS4674-2004
4. Refer to sheets A001 for notes and specification & A150 for additional details

WALL LEGEND

- Walls to be demolished/ equipment to be removed
- Existing wall
- Proposed wall
- Coolroom wall

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DOMINO'S PIZZA ENTERPRISES LIMITED

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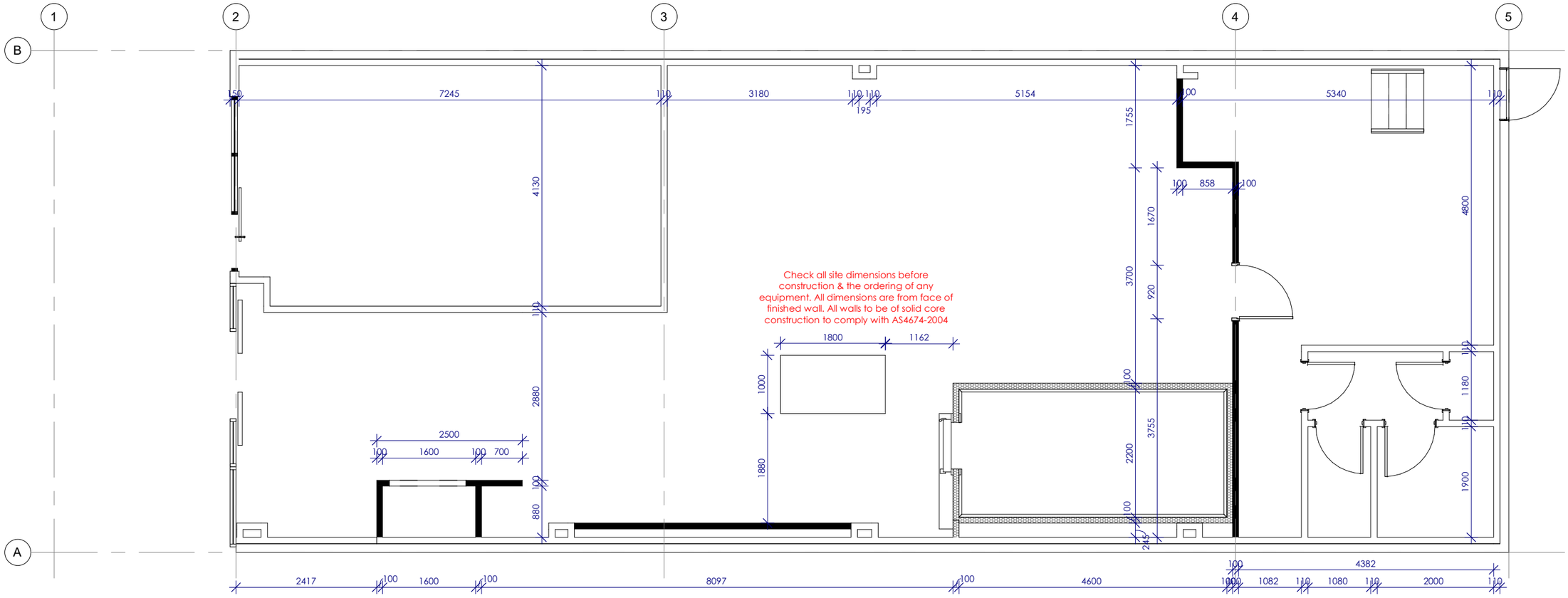
FLOOR PLAN

Drawing No: A105 Revision:

Scale: As indicated Sheet Size: A3 Issue Date: 16_02_22



1 SET OUT PLAN
A106 1 : 75

NOTES

1. Refer to sheet A130 for equipment schedules
2. Check all site dimensions before construction & the ordering of any equipment. All dimensions are from face of finished wall
3. All walls to be of solid core construction to comply with AS4674-2004
4. Refer to sheets A001 for notes and specification & A150 for additional details

WALL LEGEND

- Walls to be demolished/ equipment to be removed
- Existing wall
- Proposed wall
- Coolroom wall

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Revision Description	#	Date

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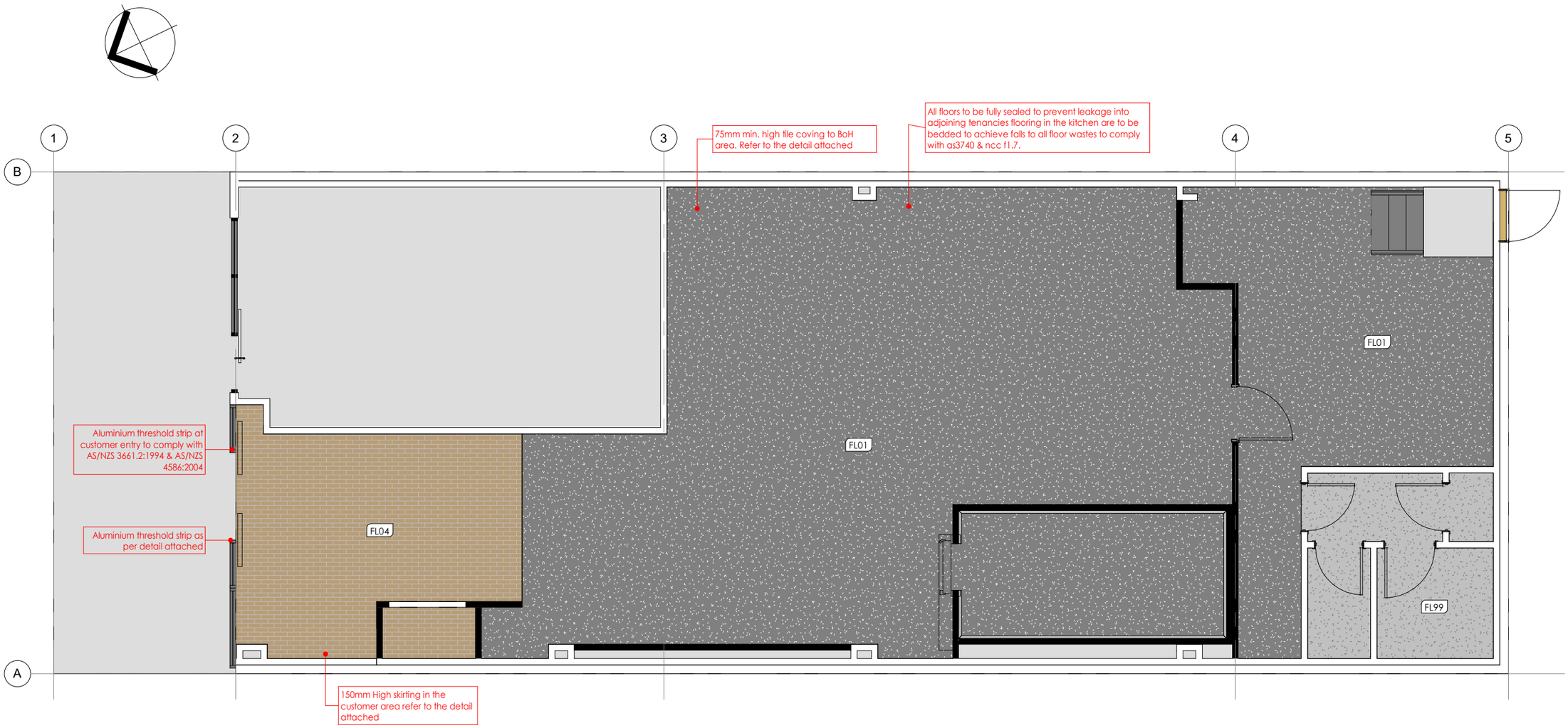
Scale: As indicated | Sheet Size: A3 | Issue Date: 16_02_22

SET OUT PLAN

Drawing No: A106 | Revision:



1 FLOOR FINISHES PLAN
A107
1 : 75

FLOOR FINISHING SCHEDULE

Note: Calculations provided below must be verified by the shopfitter and CSS before any order for these materials are accepted and placed. No responsibility or liability to be held by Hayward Design should these be incorrect.

CODE	LOCATION	SUPPLIER	AREA	SPECIFICATION	REFERENCE
FL01	BOH FLOOR	FORBO	109.5 m²	SAFESTEP R12 175952 ELEPHANT 2mm THICK HETEROGENEOUS PVC VINYL	
FL04	FOH FLOOR	TBA	18.0 m²	EXPONA COMMERCIAL VINYL PLANKS - VANILLA OAK	
FL99	BOH FLOOR	TBA	9.8 m²	EXISTING SHEET VINYL	

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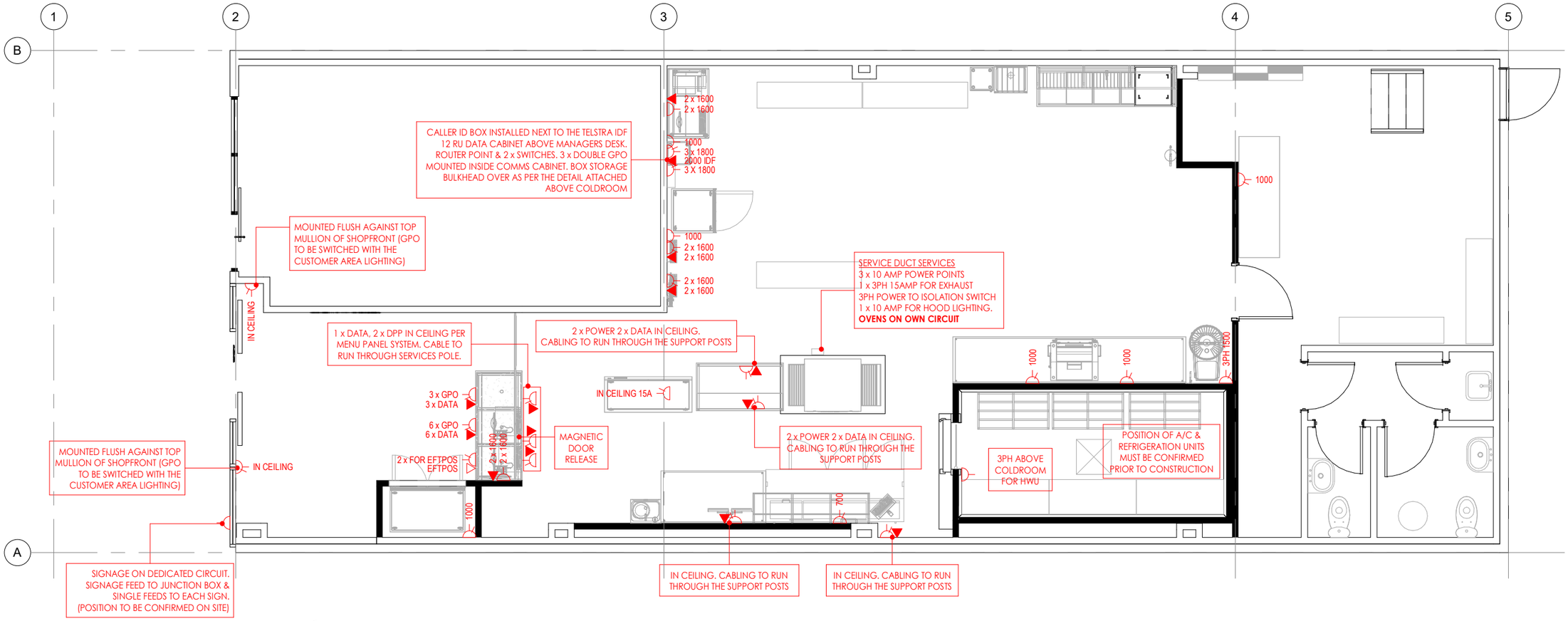
FLOOR FINISHES PLAN

Scale: 1 : 75 | Sheet Size: A3 | Issue Date: 16_02_22 | Drawing No: A107 | Revision:



1 ELECTRICAL PLAN

A108 1 : 75

ELECTRICAL LEGEND

	Single GPO outlet
3PH	3 Phase perm. connection with isolation switch
	Double GPO outlet
	Telephone outlet
	Data outlet

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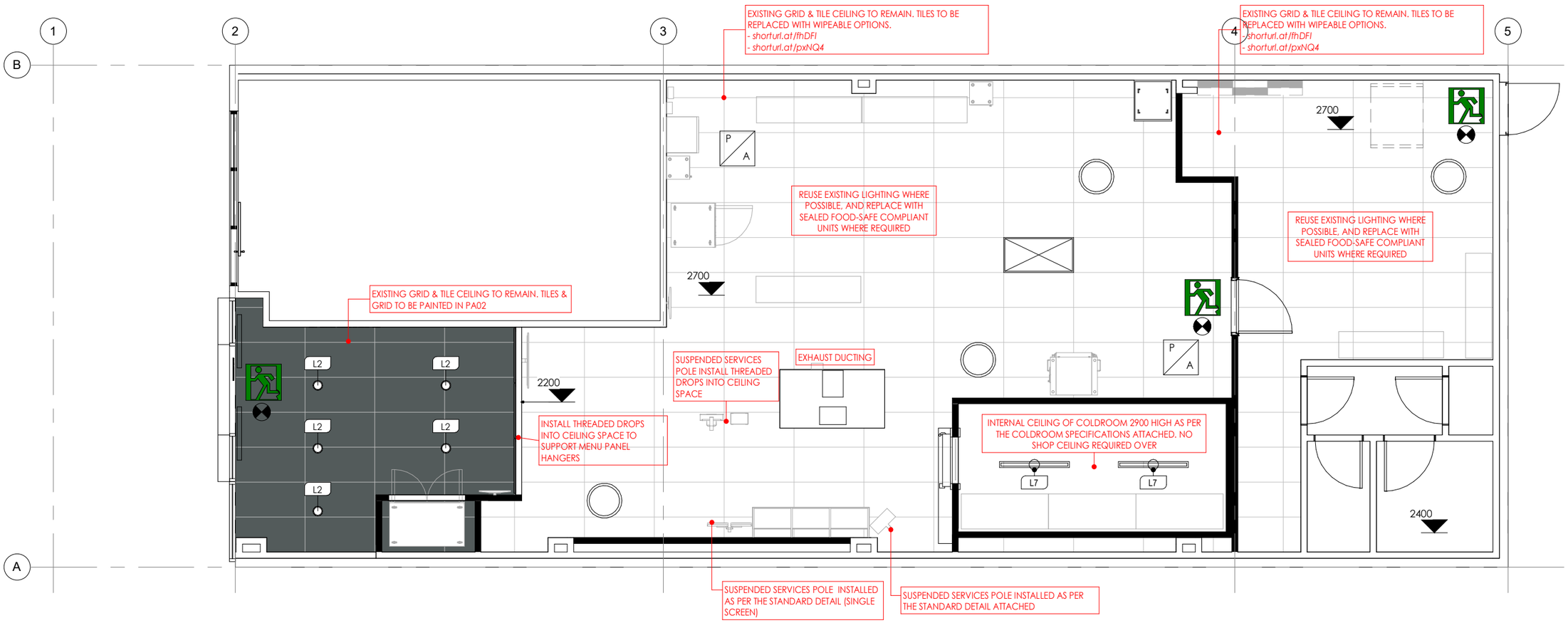
ELECTRICAL & DATA PLAN

Scale: As indicated | Sheet Size: A3 | Issue Date: 16_02_22 | Drawing No: A108 | Revision:



1 REFLECTED CEILING PLAN
A109
1 : 75

LIGHTING SCHEDULE

No.	MODEL	SUPPLIER	QTY.	DESCRIPTION
L2	DOWNLIGHT	CARIBOU LIGHTING	5	RECESSED DOWNLIGHT 12V 7W WARM WHITE (3000k) LED MODEL: BLACK FIXTURE.
L7	LOW TEMP LIGHT	LOCAL	2	1200mm LONG SURFACE MOUNTED LED LIGHTING LOW TEMP

LIGHTING LEGEND

All lighting to comply with AS1680, as4674. NCC clause J6.2b & installed to AS3000

	AIR CONDITIONING RETURN AIR REGISTER	A / P	ACCESS PANEL IN CEILING		3 WAY A/C REGISTER TO BE MOUNTED NEAR THE MAKELINE 600x600 WHITE
	SPITFIRE EMERGENCY LIGHTING TO COMPLY WITH AS2293.1		AIR CONDITIONING REGISTER		CONCEALED DATA & POWER BOX RECESSED INTO CEILING. EITHER BLACK OR WHITE. ALIANCE AUSTRALIA PH: 02 6652 1157
	ILLUMINATED EMERGENCY EXIT LIGHTING TO COMPLY WITH AS2293.1				

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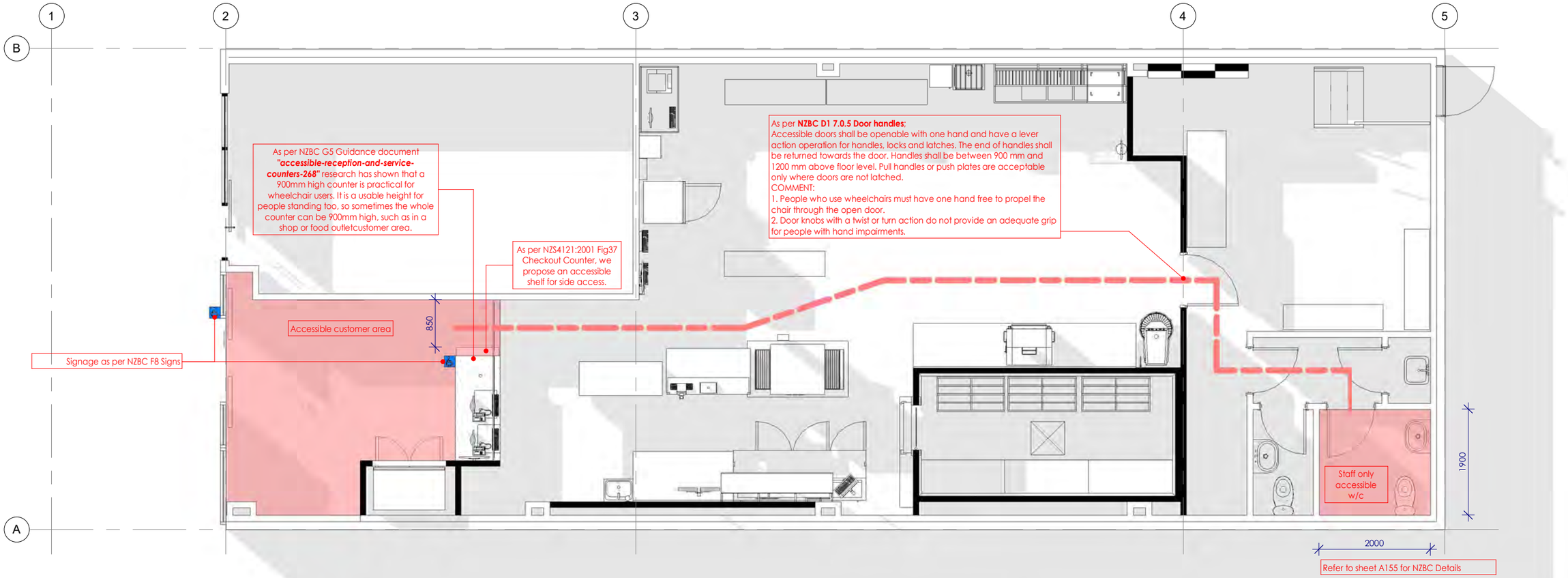
REFLECTED CEILING PLAN

Scale: As indicated
Sheet Size: A3
Issue Date: 16_02_22
Drawing No: A109
Revision:



1 ACCESSIBLE PLAN

A110 1 : 75

Revision Description	#	Date
Accessible Plan updated with notes	A	28_03_22

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ACCESSIBLE PLAN

Drawing No: A110 Revision: A

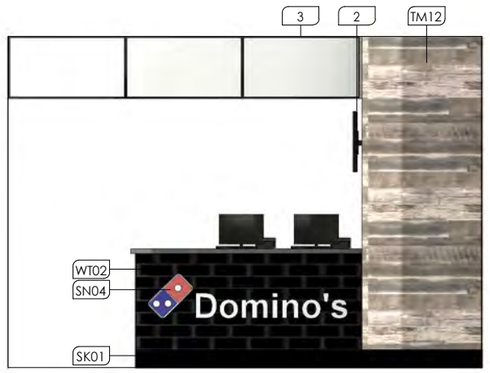
Scale: 1 : 75 Sheet Size: A3 Issue Date: 16_02_22

Refer to signage documentaiton for exact locations.

1 ELEVATION A

A105 | A120

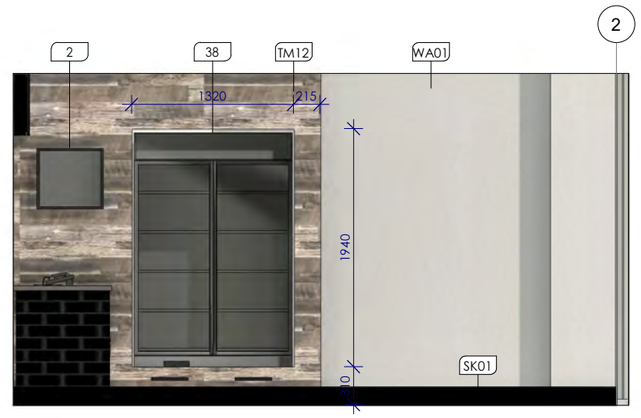
1 : 50



2 ELEVATION B

A105 | A120

1 : 50



3 ELEVATION C

A105 | A120

1 : 50

NOTE.
Refer to Domino's signage documentation for exact signage detail

SACH

Revision Description	#	Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

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ELEVATIONS

Drawing No: A120

Revision:

Scale: 1 : 50

Sheet Size: A3

Issue Date: 16_02_22

1 ELEVATION D

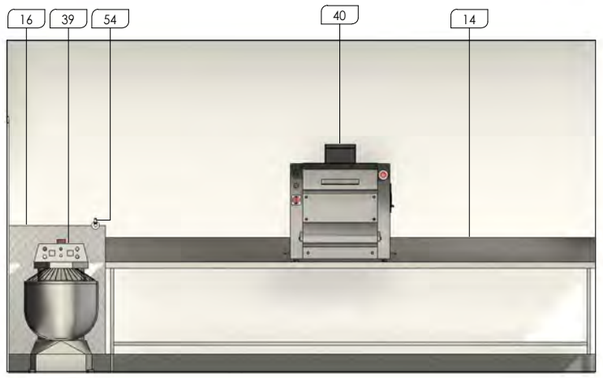
A105 | A121

1 : 50

2 ELEVATION E

A105 | A121

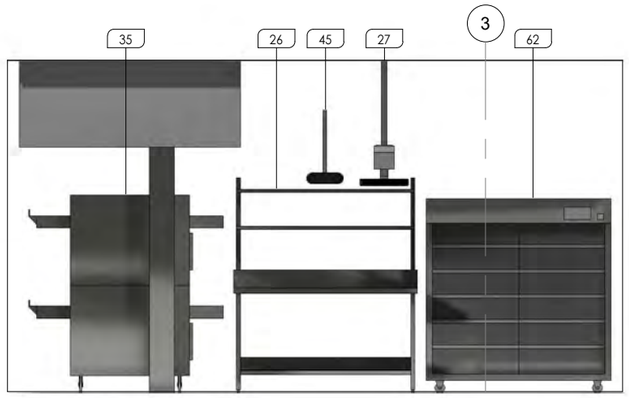
1 : 50



3 ELEVATION F

A105 | A121

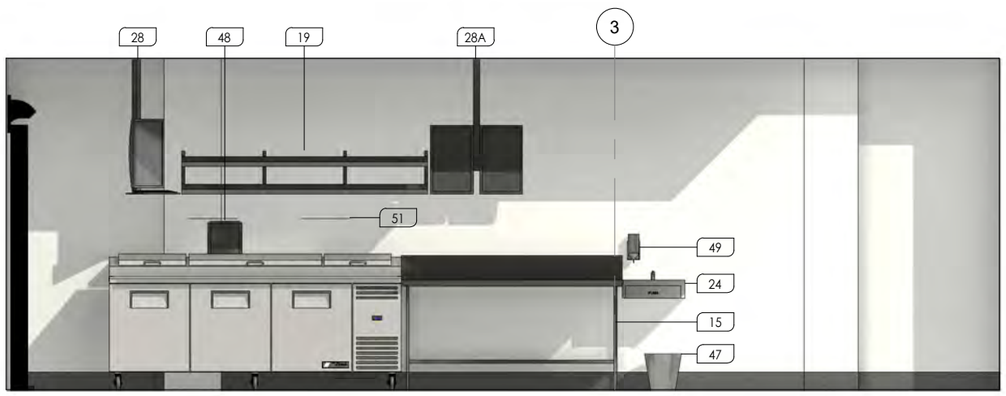
1 : 50



4 ELEVATION G

A105 | A121

1 : 50



5 ELEVATION H

A105 | A121

1 : 50

NOTE.
Refer to Domino's signage documentation for exact signage detail

SACH

Revision Description # Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

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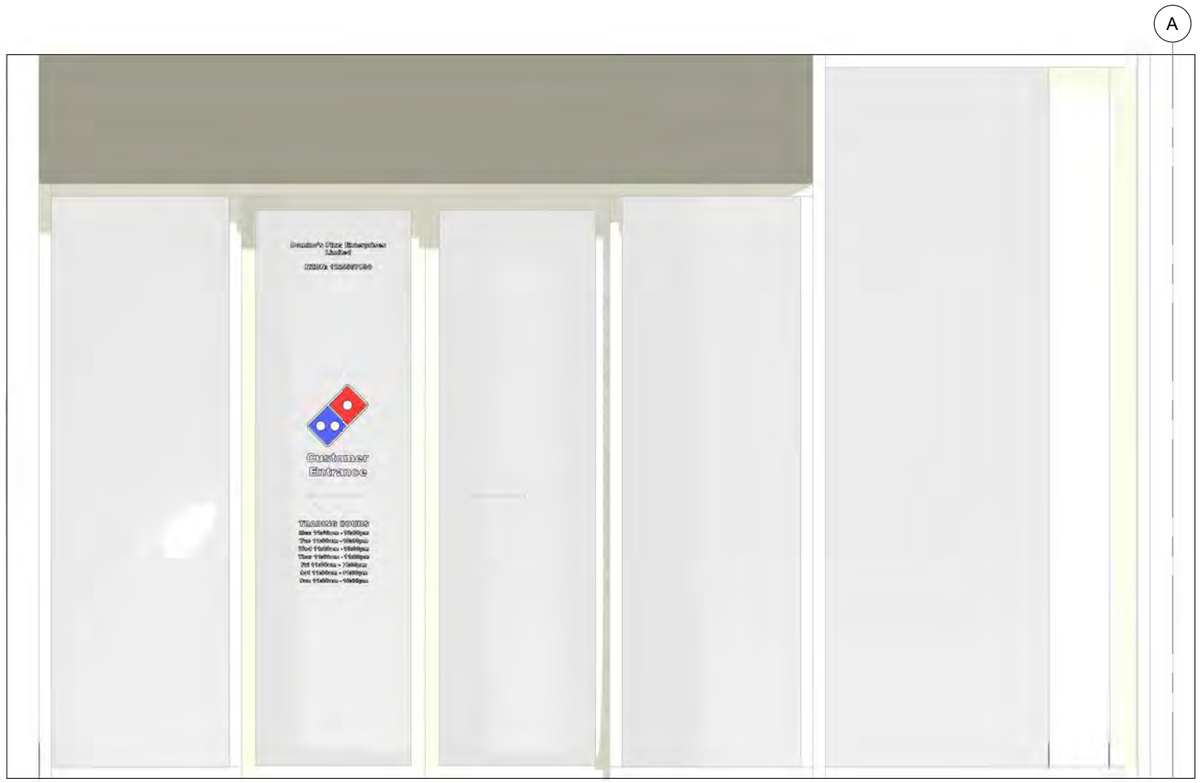
ELEVATIONS

Drawing No: A121 Revision:

Scale: 1 : 50 Sheet Size: A3 Issue Date: 16_02_22



1 EXTERIOR ELEVATION
A105 A123 1 : 25

SACH

Revision Description	#	Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED
DOMINO'S WAIPUKARAU
63 RUATANIWHA STREET, WAIPUKURAU 4200

Scale: 1 : 25 | Sheet Size: A3 | Issue Date: 16_02_22

ELEVATIONS

Drawing No: A123 | Revision:

EQUIPMENT & FIXTURE SCHEDULE

REFER TO THE DESIGN PACKAGE SUPPLIED BY DPE FOR MORE INFORMATION ON FIXTURES & FITTINGS.

NO.	EQUIPMENT	SUPPLIER	QTY.	DESCRIPTION
1	MEDIUM TEMP COLDROOM	SHOPFITTER	1	100mm COLDROOM PANEL MUST BE USED. MANUFACTURING & INSTALLATION MUST COMPLY WITH THE NCC AND AS4674. INSTALLED BY SHOPFITTER
2	CUSTOMER MONITOR	DPE IT	1	SELECTED MONITOR MOUNTED TO SUSPENDED DROPPER OR WALL MOUNT. ALL CABLING TO BE HIDDEN INSIDE DROPPER
3	MANDOE PANELS	CSS	3	MANDOE MENU PANELS
4	PLASTIC CURTAIN	CSS/SHOPFITTER	1	FLEXIBLE PVC COLDROOM PLASTIC CURTAIN AT COLDROOM ENTRANCE
5	DRIVERS SIGN OUT SCREEN	DPE IT	1	SELECTED MONITOR MOUNTED TO SUSPENDED DROPPER OR WALL MOUNT. ALL CABLING TO BE HIDDEN INSIDE DROPPER
6	MANAGERS DESK	CSS	1	MANAGERS DESK SUPPLIED BY CSS
9	POS MODULE	CSS	1	CONSTRUCTED AS PER THE DETAILS ATTACHED.
10	SERVER CABINET	ELECT. CONTRACTOR	1	WALL MOUNTED HINGED SERVER CABINET
11	MANAGERS PRINTER	DPE IT	1	SELECTED PRINTER BY DOMINO'S PIZZA IT DEPARTMENT
13	CLEANERS SINK	CSS	1	STODDARTS STAINLESS STEEL CLEANERS SINK No.SCS01
14	DOUGH PRODUCTION BENCH	CSS	1	STAINLESS STEEL BENCH AS PER THE DETAILS ATTACHED.
15	SAUCE BENCH	SHOPFITTER	1	STAINLESS STEEL SAUCE BENCH AS PER THE STANDARD DETAILS ATTACHED.
16	ALLUMINIUM WALL SHEETING	SHOPFITTER	1	ALUMINIUM WALL SHEETING TO WALL BEHIND DOUGH MIXER AS PER THE STANDARD DRAWINGS
17	WASH UP SINK	CSS	1	STAINLESS STEEL WASH UP SINK AS PER THE STANDARD DETAILS ATTACHED
19	PIZZA SLIDE SHELF	CSS	1	STAINLESS STEEL SLIDE SHELF MOUNTED ABOVE SAUCE BENCH
20	PIZZA PAN RACK	CSS	1	STAINLESS STEEL RACK MOUNTED ABOVE WASH UP SINKS.
24	HAND BASIN	SHOPFITTER	1	STODDARTS SK0B1 STAINLESS STEEL HAND BASIN
25	HOT CELL RACK	CSS	1	1800W X 450D X 1800H. 4 TIER MANTOVA RACK WITH HOT CELL UNIT MOUNTED TO EACH SHELF
26	CUT BENCH	CSS	1	STAINLESS STEEL BENCH AS PER THE STANDARD DRAWINGS ATTACHED.
27	RECEIPT PRINTER	CSS	1	RECEIPT PRINTER MOUNTED ON SUSPENDED SERVICES POLE FROM CEILING
28	MAKELINE MONITOR	DPE IT	1	SELECTED MONITOR MOUNTED TO SUSPENDED DROPPER OR WALL MOUNT. ALL CABLING TO BE HIDDEN INSIDE DROPPER
28A	MAKELINE MONITOR	DPE IT	1	SELECTED DOUBLE MONITOR MOUNTED TO SUSPENDED DROPPER OR WALL MOUNT. ALL CABLING TO BE HIDDEN INSIDE DROPPER
29B	COLDROOM STORAGE RACK	CSS	3	1500W X 600D X 1800H 4 TIER MANTOVA SHELVING
30	DRY STORAGE RACK	CSS	4	1800W X 450D X 1800H. 4 TIER MANTOVA RACK
31	DUNNAGE RACK	CSS	3	STAINLESS STEEL DUNNAGE RACK
32	GPS TERMINAL	DPE IT	1	GPS WALL MOUNTED TERMINAL.
33	PHONE/ COMPUTER SYSTEM	DPE IT	1	COMPUTER SYSTEM SUPPLIED BY DOMINO'S PIZZA'S IT DEPARTMENT
34	HOT WATER UNIT	SHOPFITTER	1	50 LITRE 3 PHASE 20A QUICK RECOVERY HOT WATER UNIT MOUNTED ABOVE COLDROOM
35	PIZZA OVENS	CSS	1	DMP 2638 DOUBLE STACK OVENS
38	DRINKS FRIDGE	PEPSI	1	DOUBLE DOOR DRINKS FRIDGE.
38A	DRINKS FRIDGE	PEPSI	1	SINGLE DOOR DRINKS FRIDGE.
39	DOUGH MIXER	CSS	1	ATLAS S80N 3 PHASE 20AMP DOUGH MIXER MODEL No. 200kg NET WEIGHT
40	DOUGH SHEETER	CSS	1	ATLAS DOUGH SHEETER MODEL No.SH500 PR20. 15AMP 195kg NET WEIGHT
45	<varies>	<varies>	2	<varies>
47	PAPER TOWEL BIN	CSS	1	PAPER TOWEL DISPOSAL BIN
48	PAPER TOWEL DISPENSER	CSS	1	PAPER TOWEL DISPENSER TO COMPLY WITH AS 4674 & THE LOCAL HEALTH REQUIREMENTS
49	<varies>	<varies>	2	<varies>
50	CHART HOLDER RAIL	SHOPFITTER	1	TBC
51	MAKELINE CHART	PURE PRINT	1	TBC
52	DRIVERS SIGN OUT TERMINAL	DPE IT	1	COMPUTER TERMINAL WALL MOUNTED FOR SIGN OUT DRIVERS.
53	GPS TRACKER SCREEN	DPE IT	1	32" TV SCREEN
54	CHILLED WATER OUTLET	SHOPFITTER	1	SPECIFICATIONS INCLUDED IN THE PLUMBING SPECS ATTACHED.
55	SAFE	LONDON FIRE & SAFE	1	600H x 500W x 475D SAFE
56	<varies>	<varies>	4	<varies>
57	COMPUTER TERMINAL	DPE IT	2	ORDERING TERMINAL INSTALLED BY DOMINO'S IT DEPARTMENT
58	PHONE	DPE IT	2	PHONE SUPPLIED BY CSS. INSTALLED BY NOMINATED ELECTRICIAN.
61	FIRST AID KIT	CSS	1	APPROVED FIRST AID KIT TO COMPLY WITH AUST/NZ STANDARDS
62	HOTBOX	CSS	1	HOTBOX HOLDING CABINET
63	CLEANERS CABINET	CSS	1	CLEANERS CABINET FOR STORAGE OF CHEMICALS & EQUIPMENT AS PER THE STANDARD DRAWINGS ATTACHED.
64	STAFF LOCKERS	CSS	1	STAFF LOCKERS FOR STORAGE OF STAFF BELONGINGS AS PER THE DETAIL ATTACHED
66	SERVICES DUCT	CSS	1	STAINLESS STEEL SERVICES DUCT 205L x 103D.
76	CHEST FREEZER	CSS	1	CHEST FREEZER 2050L X 780D WITH STAINLESS STEEL TOP.

1 CONCEPT VIEW - PLAN
A140

SACH

Revision Description # Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

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3D VISUALS

Scale: Sheet Size: A3 Issue Date: 16_02_22

Drawing No: A140 Revision:

1 A141 CONCEPT VIEW - SHOPFRONT

SACH

Revision Description # Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

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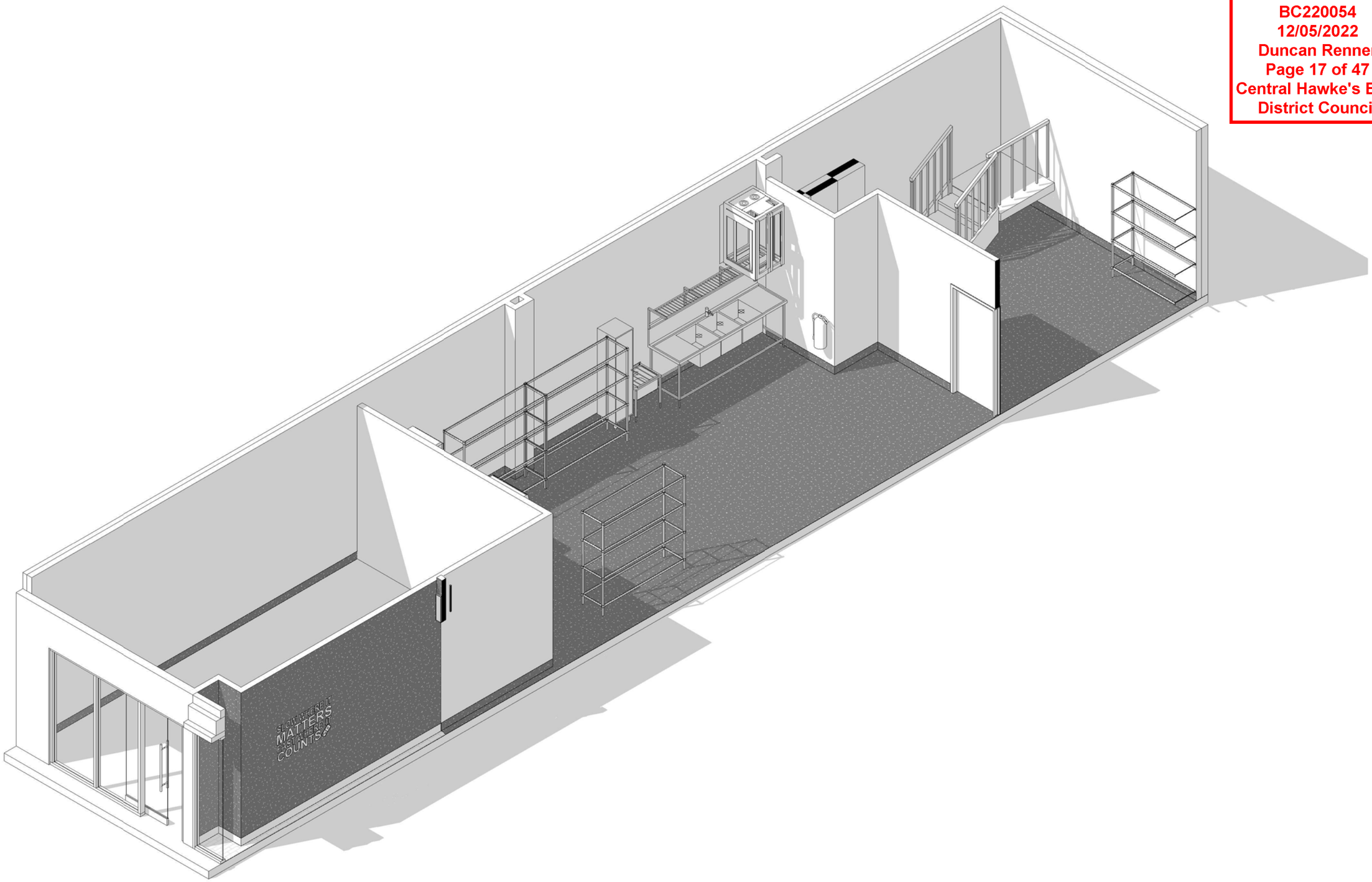
3D VISUALS

Drawing No: A141 Revision:

Scale: Sheet Size: A3 Issue Date: 16_02_22



1 ORTHOGRAPHIC VIEW 1

A142

Revision Description	#	Date

SACH

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

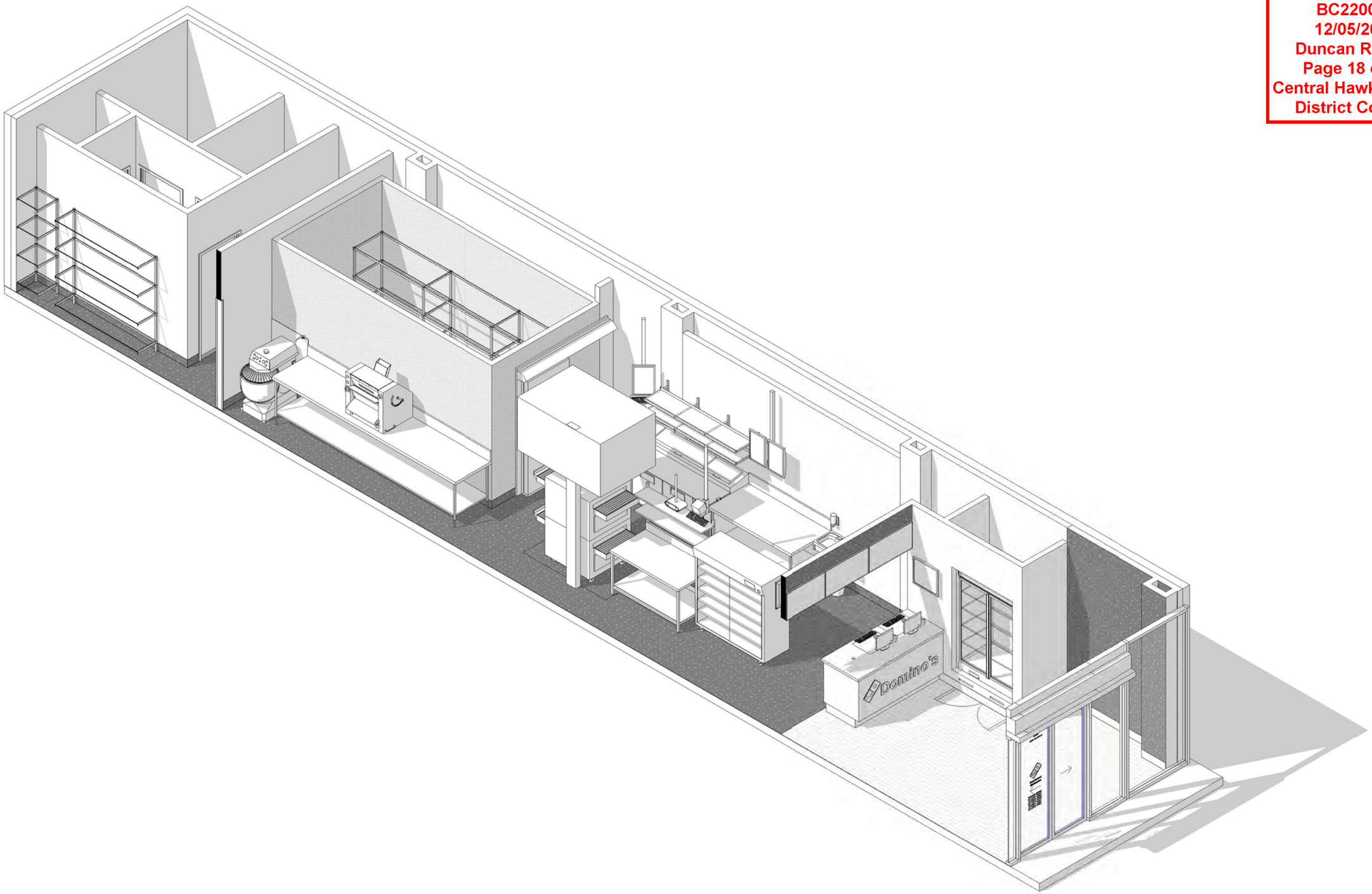
DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

Scale: Sheet Size: A3 Issue Date: 16_02_22

3D VISUALS

Drawing No: A142 Revision:



1 ORTHOGRAPHIC VIEW 2

A143

SACH

Revision Description	#	Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

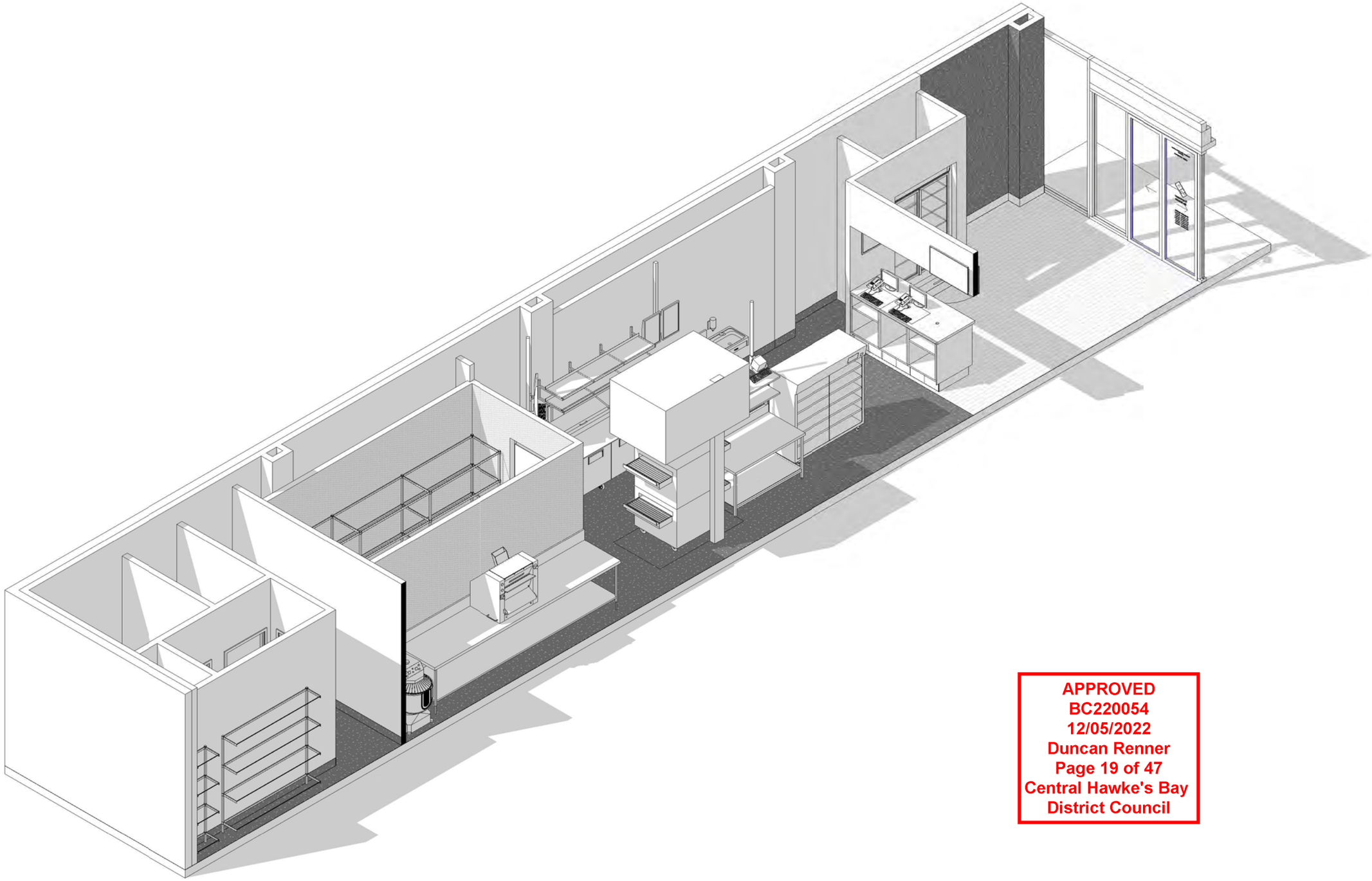
DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

3D VISUALS

Scale: | Sheet Size: A3 | Issue Date: 16_02_22

Drawing No: A143 | Revision:



1 ORTHOGRAPHIC VIEW 3

A144

SACH

Revision Description	#	Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

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3D VISUALS

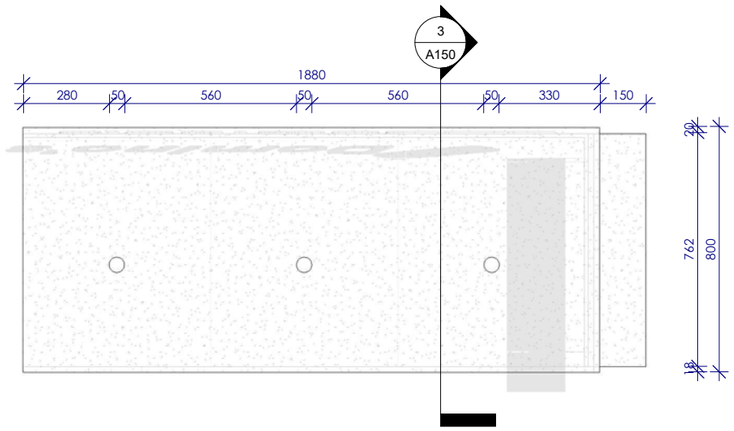
Scale:

Sheet Size: A3

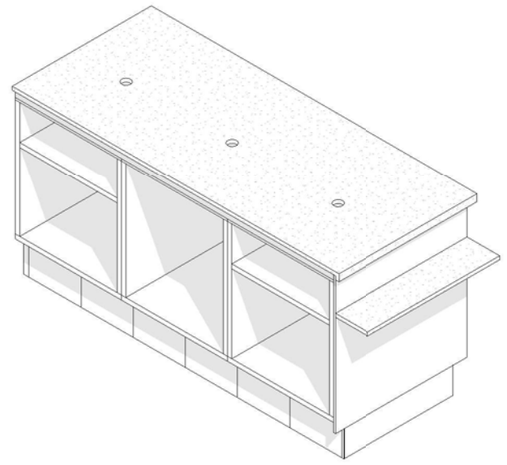
Issue Date: 16_02_22

Drawing No: A144

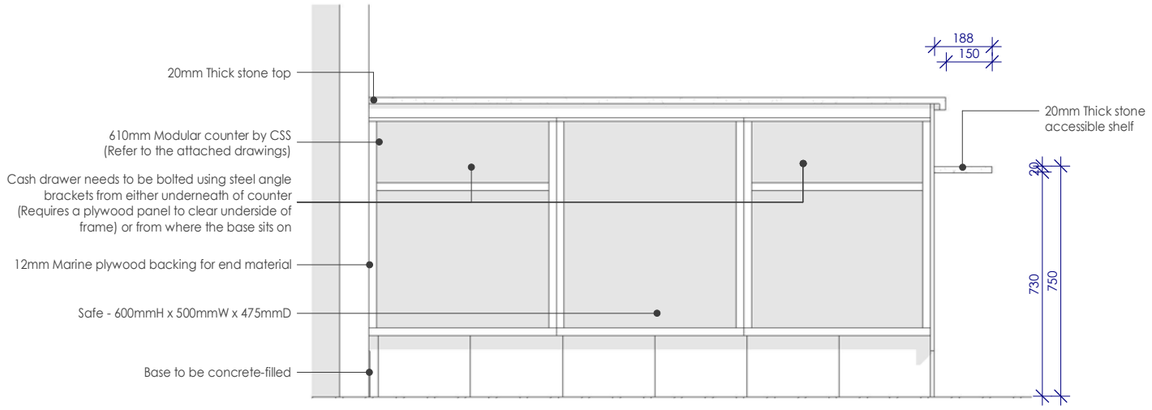
Revision:



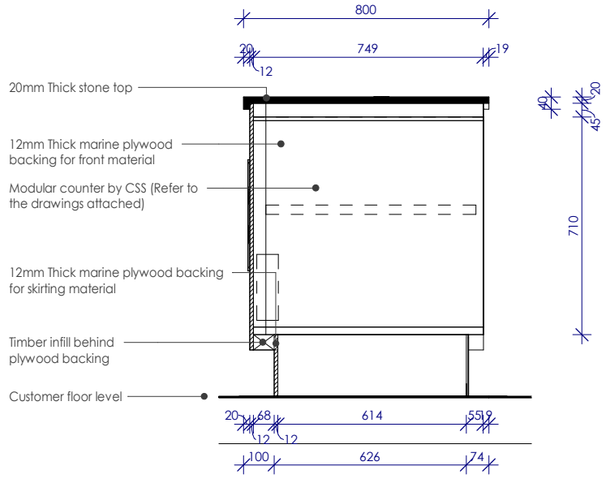
1 FRONT COUNTER PLAN
A105 | A150
1 : 20



4 FRONT COUNTER ORTOGRAPHIC
A150



2 COUNTER ELEVATION
A150
1 : 20



3 FRONT COUNTER SECTION
A150 | A150
1 : 20

Revision Description	#	Date
Accessible Plan updated with notes	A	28_03_22

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2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

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DETAILS

Drawing No: A150 Revision: A

Scale: 1 : 20 Sheet Size: A3 Issue Date: 16_02_22

ITEM: 610 W/O:916299-02-01
FRONT MODULAR COUNTER - 610

2 off REQUIRED

General Construction
- 0.9mm 304 S/S

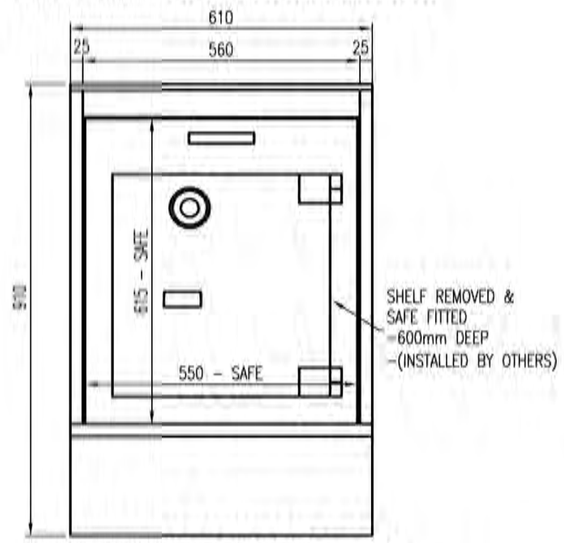
Finish
- No.4 S/S

Fasteners (Supplied by Stoddart)
- M4 x 12mm S/S Screws (CMFA-0281) - **Qty 20**
- M4 x 40mm S/S Screws (CMFA-0284) - **Qty 2**
- 8 gauge x 3/4" Z/P Self tappers (CMFA-1566) - **Qty 12**

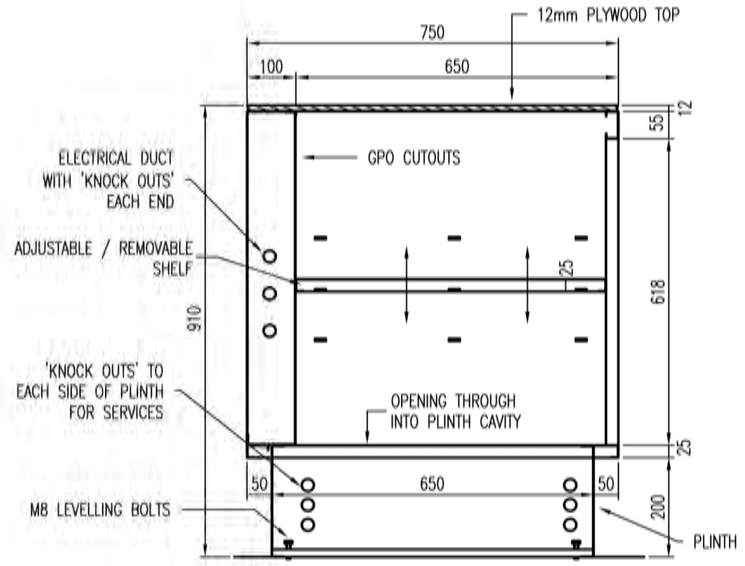
PLEASE NOTE:
To be delivered to site 'Flat Packed'

03 - FRONT COUNTER ISOMETRIC Scale N.T.S.

PART No. - GFBC.DOM.FMC.760
PART No. - GFBC.DOM.FMC.610



02 - FRONT COUNTER - 610 ELEVATION Scale 1 : 10



A - FRONT COUNTER SECTION Scale 1 : 10

STODDART MANUFACTURING
Tom Stoddart Pty Ltd ACN 009 690 251
39 Faisal Hatia Way, Karawatha, Qld. 4117
PO Box 420 Sunnybank Qld 4109
Phone (617) 3440 7600 Fax (617) 3344 1000
www.stoddart.com.au
Quality in stainless steel

SCALE 1 : 10	DRAWN pwebster	CHECKED	APPROVED
No.6 SURFACE FINISH REFER TO TS-WI-901.12	DATE 14/7/2016	DATE	DATE
S.S. WELDING REFER TO TS-WI-302.11	TOLERANCE REFER TO TS-WI-301.14 UNLESS A CRITICAL DIMENSION IS INDICATED BY ◆ NEXT TO THE DIMENSION	UNLESS OTHERWISE NOTED ALL DIMENSIONS IN MM	

TITLE: FRONT MODULAR COUNTERS 760 & 610mm LONG
PROJECT: DOMINOS
CLIENT: CONSTRUCTION SUPPLY & SERVICE
DRAWING No. 915199w001 C A3 ISSUE

MODULAR COUNTER DETAIL
1 : 1

Revision Description	#	Date

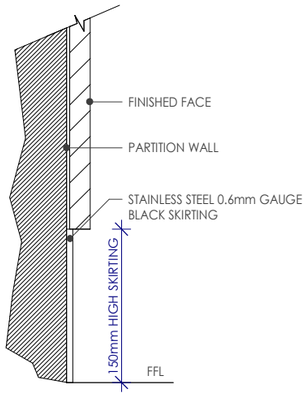
2206

DOMINO'S PIZZA ENTERPRISES LIMITED
DOMINO'S WAIPUKARAU
63 RUATANIWHA STREET, WAIPUKURAU 4200

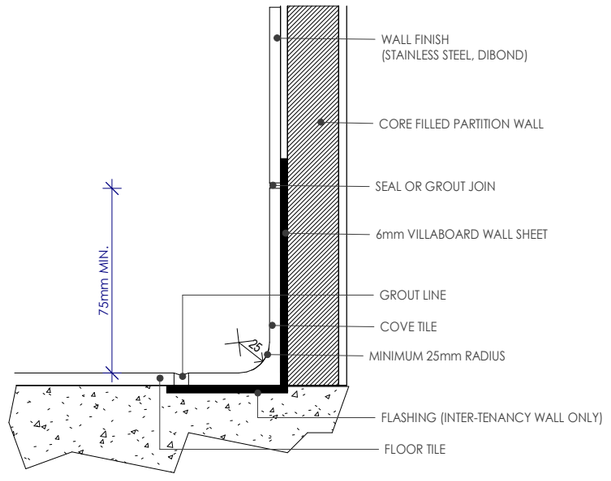
DETAILS

Scale: 1 : 1 | Sheet Size: A3 | Issue Date: 16_02_22

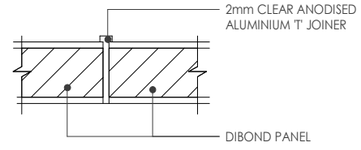
Drawing No: A151 | Revision:



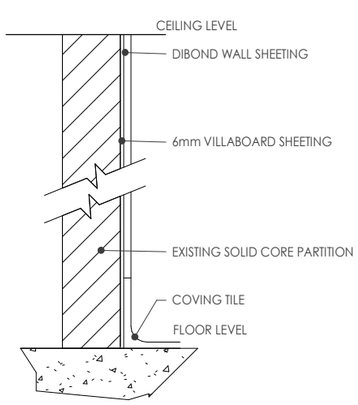
CUSTOMER AREA SKIRTING DETAIL
1 : 2



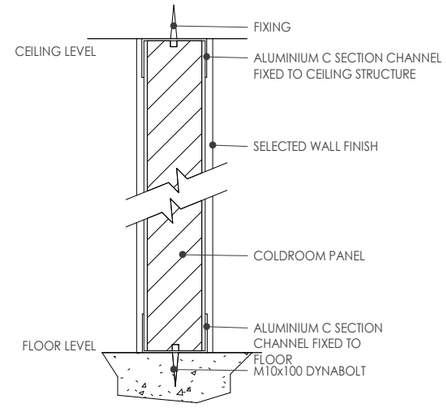
STANDARD COVING DETAIL
1 : 5



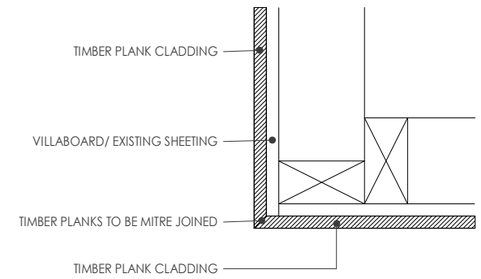
DIBOND WALL JOIN DETAIL
1 : 1



INTER-TENANCY WALL DETAIL
1 : 5



PARTITION WALL DETAIL
1 : 5



TIMBER WALL CORNER FINISH
1 : 5

Revision Description	#	Date

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DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

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DETAILS

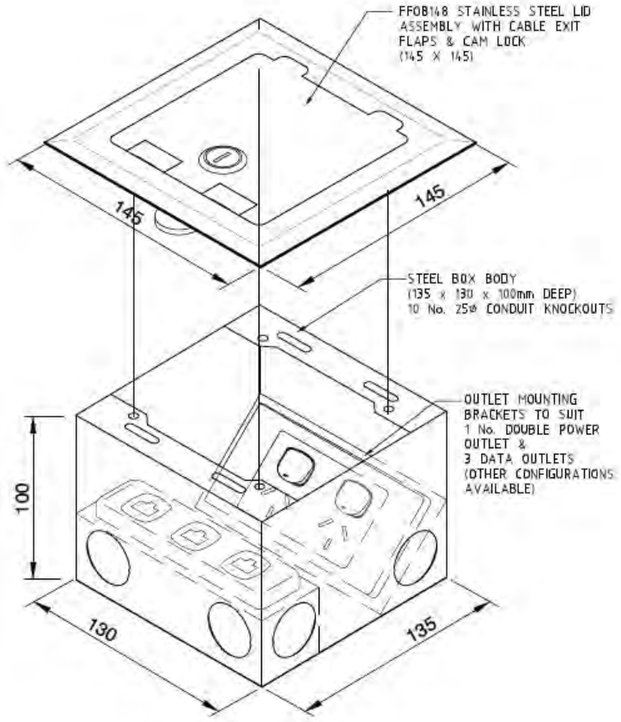
Drawing No: A152

Revision:

Scale: As indicated

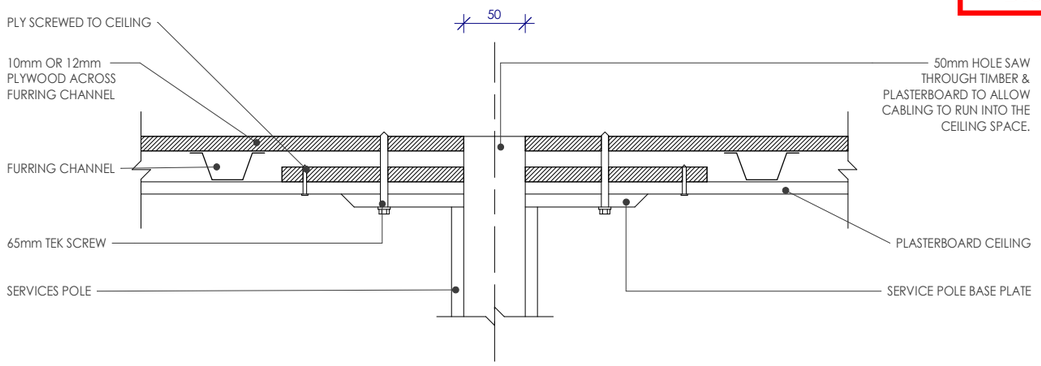
Sheet Size: A3

Issue Date: 16_02_22



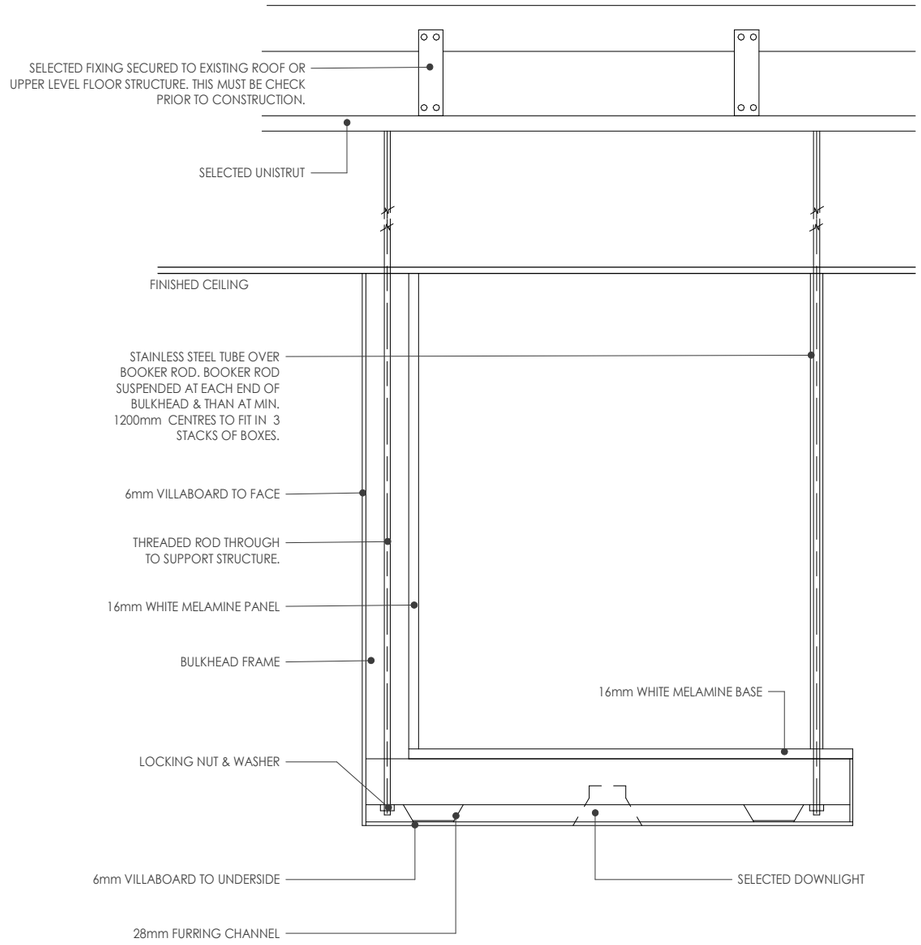
CONCEALED DATA & POWER BOX

NTS



COMPUTER SERVICES POLE DETAIL

1 : 5



BULKHEAD DETAIL

1 : 10

SACH

Revision Description	#	Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

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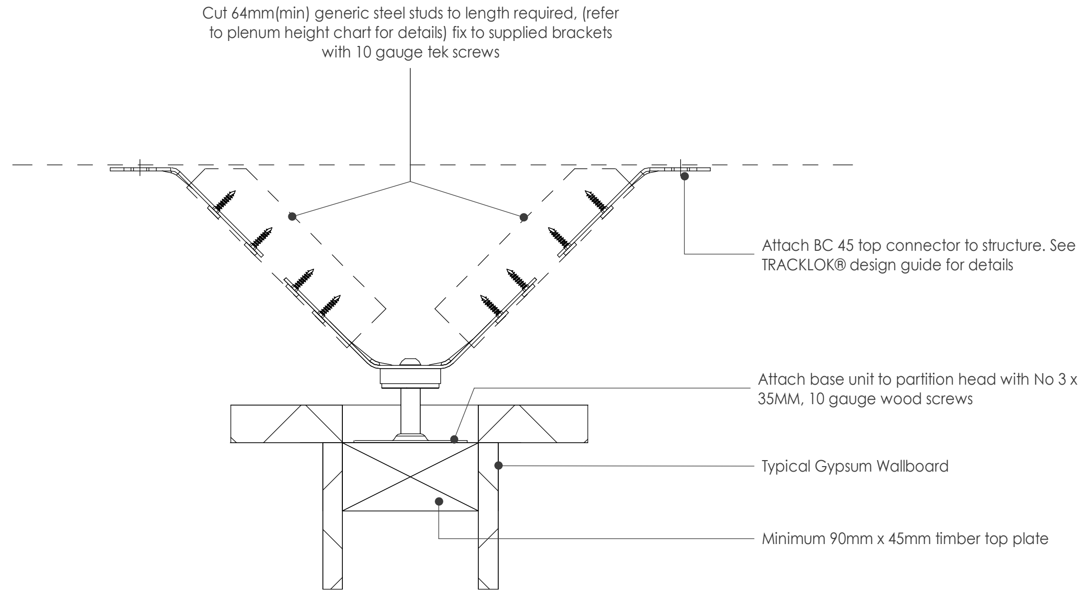
DETAILS

Scale: As indicated | Sheet Size: A3 | Issue Date: 16_02_22 | Drawing No: A153 | Revision:

INTERNAL NON-LOAD BEARING WALLS (STUDS @ 600mm CRS.) NZS 3604 : 2011 Table 8.4. ,Table 8.19, CL 7.5.12.1, Figure 7.21

3.0m ≥ Stud height ≥ 2.4m	3.6m ≥ Stud Height > 3.0m	4.2m ≥ Stud Height > 3.6m	4.8m ≥ Stud Height > 4.2m
1. **Top & Bottom Plates** 90x45mm SG8 H1.2	1. **Top & Bottom Plates** 90x90mm SG8 H1.2	1. **Top & Bottom Plates** 140x45mm SG8 H1.2	1. **Top & Bottom Plates** 140x90mm SG8 H1.2
2. **Studs** 90x45mm SG8 H1.2 timber Studs @ 600mm crs. (NZS 3604 :2011, Table 8.4)	2. **Studs** 90x90mm SG8 H1.2 timber Studs @ 600mm crs. (NZS 3604 :2011, Table 8.4)	2. **Studs** 140x45mm SG8 H1.2 timber Studs @ 600mm crs. (NZS 3604 :2011, Table 8.4)	2. **Studs** 140x90mm SG8 H1.2 timber Studs @ 600mm crs. (NZS 3604 :2011, Table 8.4)
3. **Stud to Plate Fixings (Table 8.19)** 4/75x3.15mm Skewed hand-driven nails. **OR** 4/75x3.06mm skewed power-driven nails.	3. **Stud to Plate Fixings (Table 8.19)** 4/75x3.15mm Skewed hand-driven nails. **OR** 4/75x3.06mm skewed power-driven nails.	3. **Stud to Plate Fixings (Table 8.19)** 4/75x3.15mm Skewed hand-driven nails. **OR** 4/75x3.06mm skewed power-driven nails.	3. **Stud to Plate Fixings (Table 8.19)** 4/75x3.15mm Skewed hand-driven nails.**OR** 4/75x3.06mm skewed power-driven nails.
4. **Bottom Plate to Floor Fixings:** **To Concrete Slabs** (slab edge formed with in-situ concrete) use M12 bolts and 50x50x3mm washers @ 1200mm crs. max. bolts set within 150mm of each end of the plate. **OR** use 2kN proprietary anchors to be within 150mm of each end of the plate and spaced @ 900mm max. **To Timber Floors** use 2/100x3.75mm hand-driven nails @ 600mm CRS. **OR** 3/90x3.15mm power-driven nails @ 600mm CRS.	4. **Bottom Plate to Floor Fixings:** **To Concrete Slabs** (slab edge formed with in-situ concrete) use M12 bolts and 50x50x3mm washers @ 1200mm crs. max. bolts set within 150mm of each end of the plate. **OR** use 2kN proprietary anchors to be within 150mm of each end of the plate and spaced @ 900mm max. **To Timber Floors** use 2/100x3.75mm hand-driven nails @ 600mm CRS. **OR** 3/90x3.15mm power-driven nails @ 600mm CRS.	4. **Bottom Plate to Floor Fixings:** **To Concrete Slabs** (slab edge formed with in-situ concrete) use M12 bolts and 50x50x3mm washers @ 1200mm crs. max. bolts set within 150mm of each end of the plate. **OR** use 2kN proprietary anchors to be within 150mm of each end of the plate and spaced @ 900mm max. **To Timber Floors** use 2/100x3.75mm hand-driven nails @ 600mm CRS. **OR** 3/90x3.15mm power-driven nails @ 600mm CRS.	4. **Bottom Plate to Floor Fixings:** **To Concrete Slabs** (slab edge formed with in-situ concrete) use M12 bolts and 50x50x3mm washers @ 1200mm crs. max. bolts set within 150mm of each end of the plate. **OR** use 2kN proprietary anchors to be within 150mm of each end of the plate and spaced @ 900mm max. **To Timber Floors** use 2/100x3.75mm hand-driven nails @ 600mm CRS. **OR** 3/90x3.15mm power-driven nails @ 600mm CRS.

INTERNAL WALLS (NON-LOAD BEARING)
1 : 50



TRACKOK TIMBA
1 : 5

SACH

Revision Description # Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED
DOMINO'S WAIPUKARAU
63 RUATANIWHA STREET, WAIPUKURAU 4200

Scale: As indicated
Sheet Size: A3
Issue Date: 16_02_22

DETAILS
Drawing No: A154
Revision:

6.0 Access and facilities for people with disabilities

6.1 Signs shall be provided to identify facilities provided specifically for *people with disabilities*. Such facilities are:

a) *Accessible* car parks

b) *Accessible* entrances

c) *Accessible routes* through the *building*

d) *Accessible* services available in the *building*.

6.2 All signs, except as required by Paragraph 6.3, shall:

a) Display the International Symbol of Access, include the direction of travel (if appropriate) and name of, or symbol for, the facility as shown in Figure 8

b) Use lettering and symbols in a colour that contrasts clearly with the sign background

c) Use the proportional layout of the International Symbol of Access as shown in Figure 9

d) Be positioned consistently throughout the *building* between 1400 mm and 1700 mm above floor level

e) For carparks, be ground marked with the International Symbol of Access and may have additional signage positioned as in d) above.

Figure 8 Example of sign indicating facilities and direction

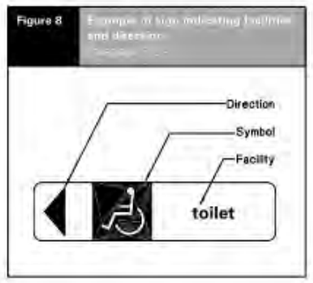
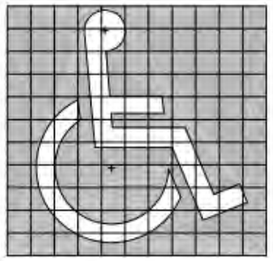
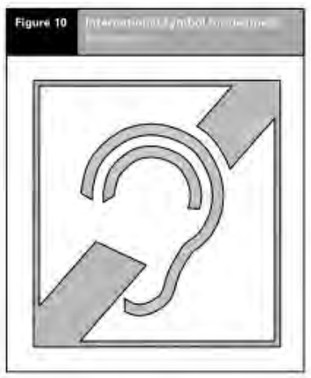


Figure 9 International Symbol of Access



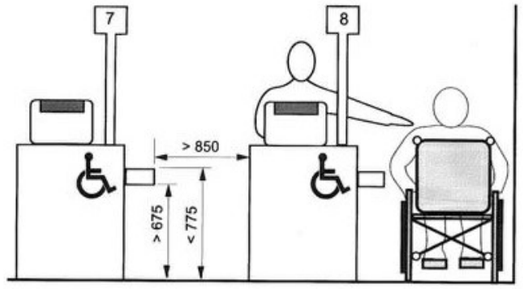
6.3 Where an assistive listening system is installed, a sign displaying the international symbol for deafness, as shown in Figure 10, shall be provided within 600 mm of the door(s) to the room in which the assistive listening system or device is located, and shall comply with Paragraph 6.2 b) and d).

Figure 10 International Symbol for Deafness



1 A155 NZBC F8 SIGNS 6.0

NTS

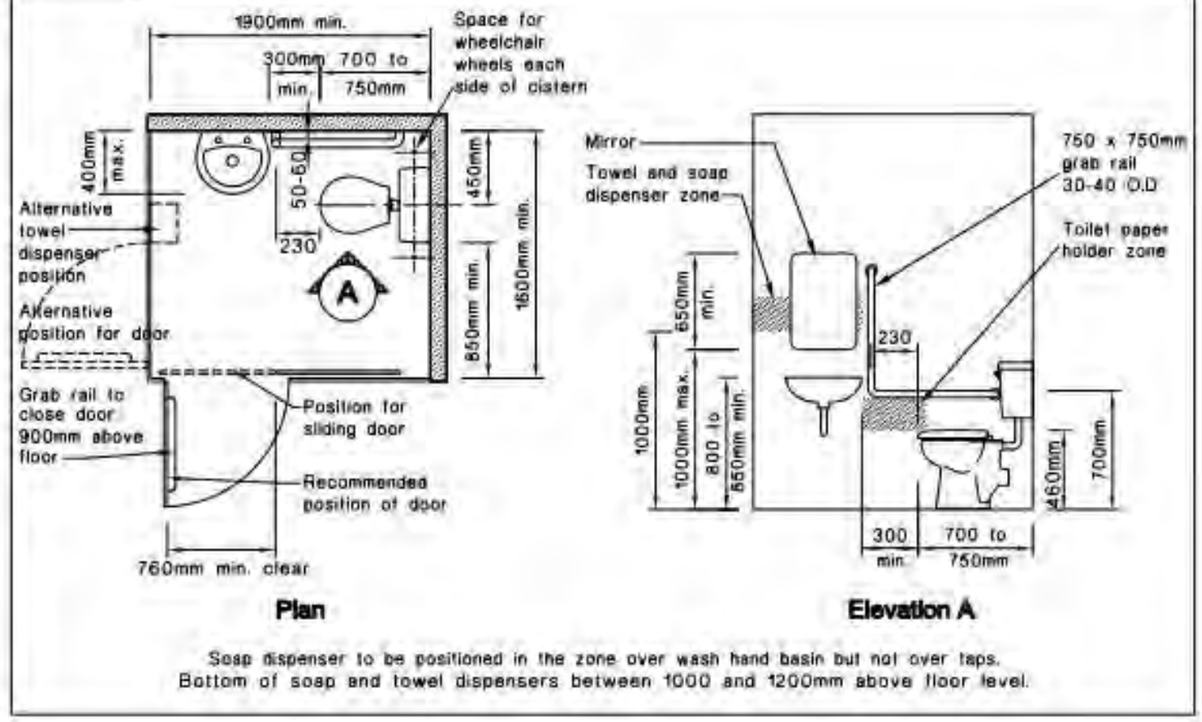


Checkout counter

3 A155 NZS4121-2001 Fig37

NTS

Figure 6: Accessible Toilet Compartment
Paragraph 4.2.2 and Table 1



Amend 4 Jul 2001

2 A155 NZBC G1 PERSONAL HYGIENE F6

NTS

Revision Description	#	Date
Accessible Plan updated with notes	A	28_03_22

SACH

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

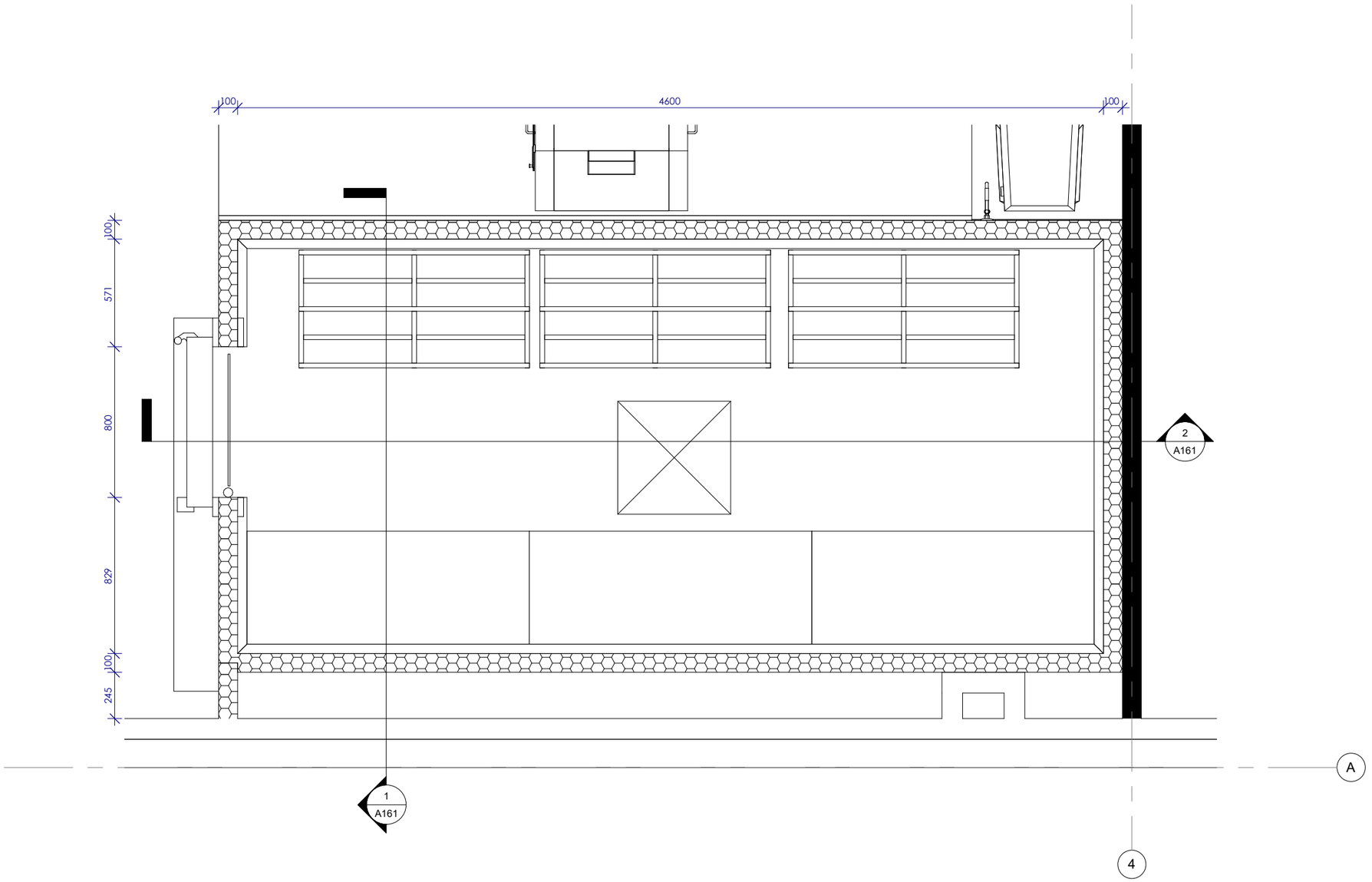
63 RUATANIWHA STREET, WAIPUKURAU 4200

www.sach.co.nz

DETAILS

Scale: NTS | Sheet Size: A3 | Issue Date: 16_02_22

Drawing No: A155 | Revision: A



1 COLDROOM PLAN

A105 | A160

1 : 25

SACH

Revision Description	#	Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

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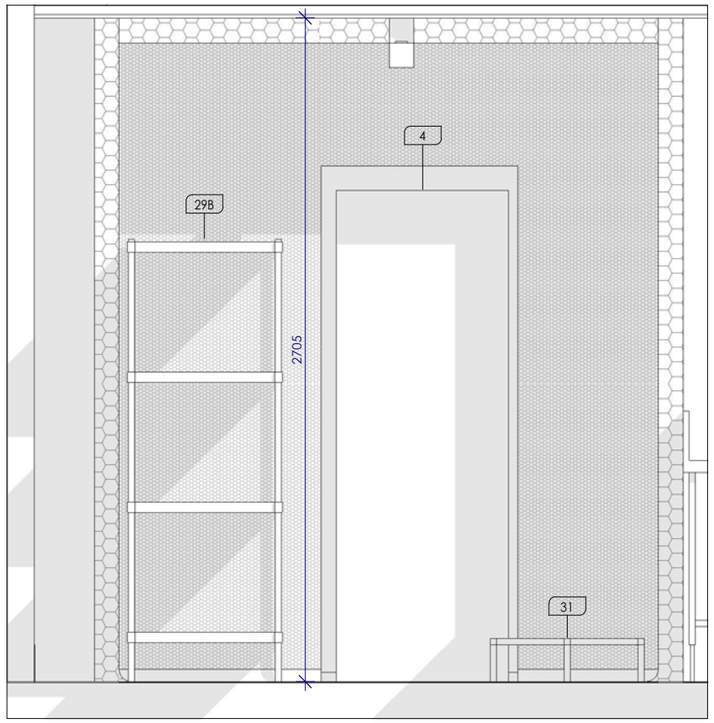
COLDROOM DETAIL

Drawing No: A160 Revision:

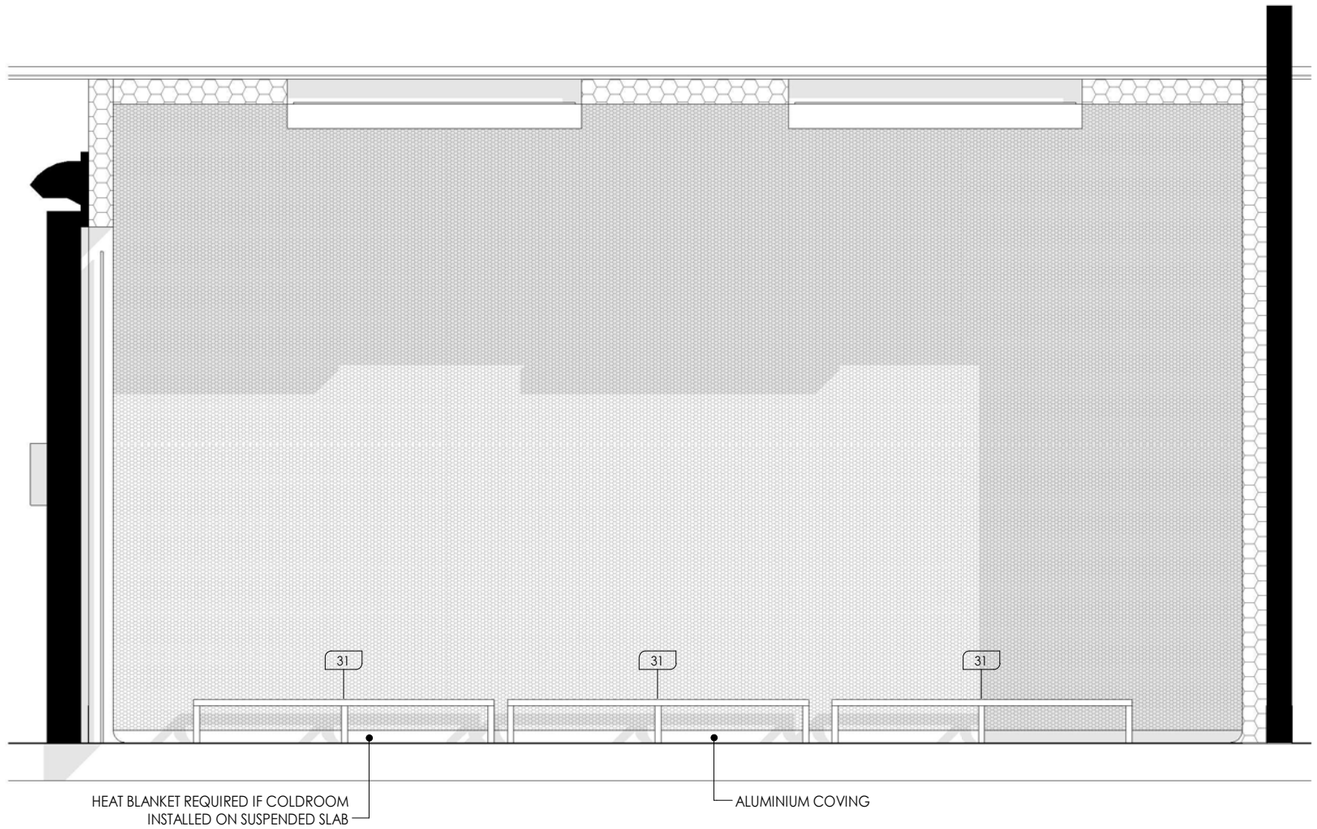
Scale: 1 : 25 Sheet Size: A3 Issue Date: 16_02_22



1 COLDROOM SECTION A

A160 | A161

1 : 25



2 COLDROOM SECTION B

A160 | A161

1 : 25

SACH

Revision Description	#	Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

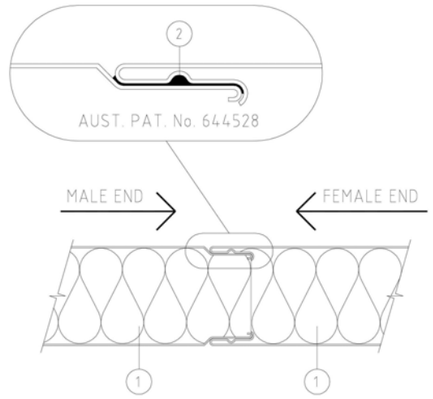
63 RUATANIWHA STREET, WAIPUKURAU 4200

COLDROOM DETAIL

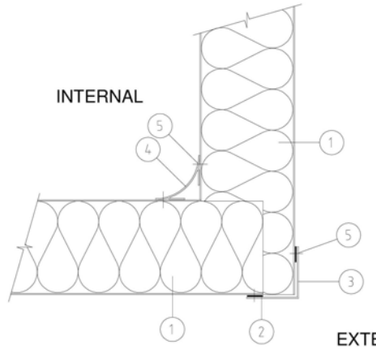
Scale: 1 : 25 | Sheet Size: A3 | Issue Date: 16_02_22

Drawing No: A161 | Revision:

Cold Room & Refrigeration – Sectional View through Ceiling



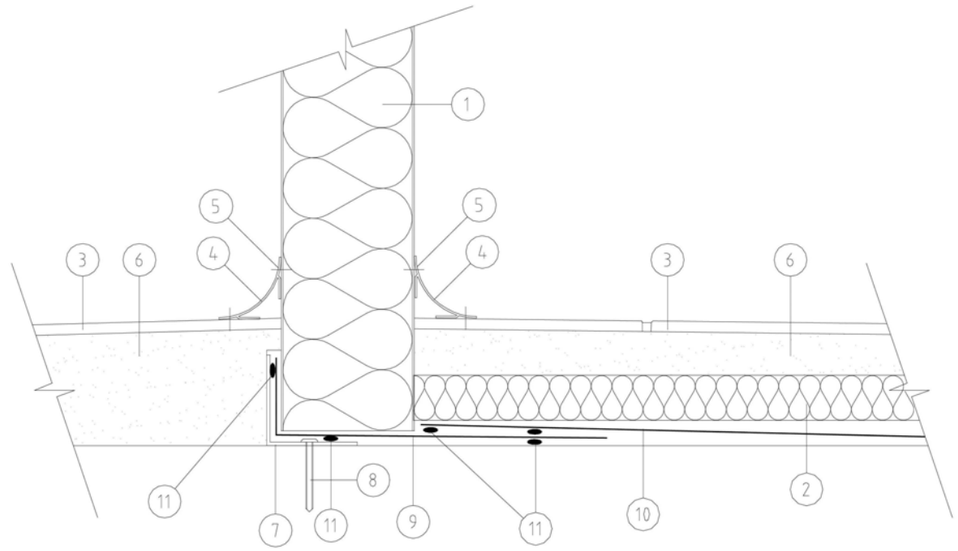
SECTIONAL VIEW THROUGH THE CEILING & WALL PANELS
R.F.E. (ROLL FORMED EDGE) TYPE PANEL



SECTIONAL VIEW THROUGH THE CEILING & WALL PANELS
R.F.E. (ROLL FORMED EDGE) TYPE PANEL

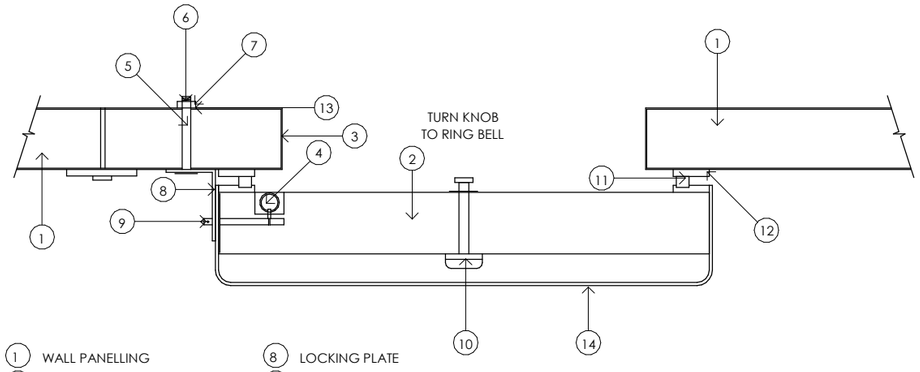
1. Insulation
2. Non-setting sealant
3. 50mm x 50mm ext. angle
4. Aluminum radius corner mould
5. Fixings
6. Skin removed for thermal conduction break

Cold Room & Refrigeration – Sectional View through Floor

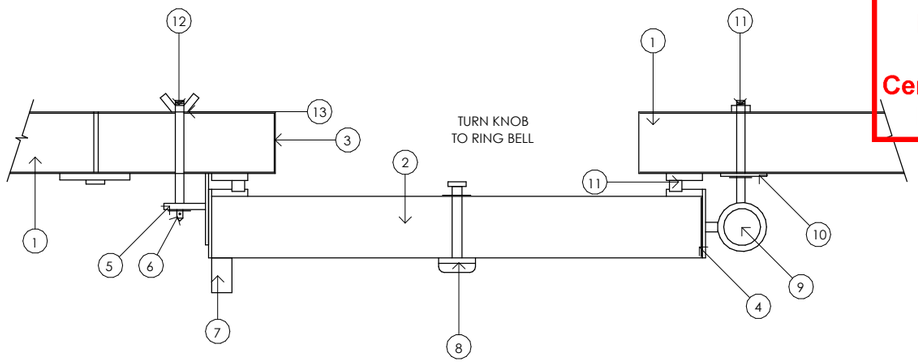


SECTIONAL VIEW THROUGH THE FLOOR

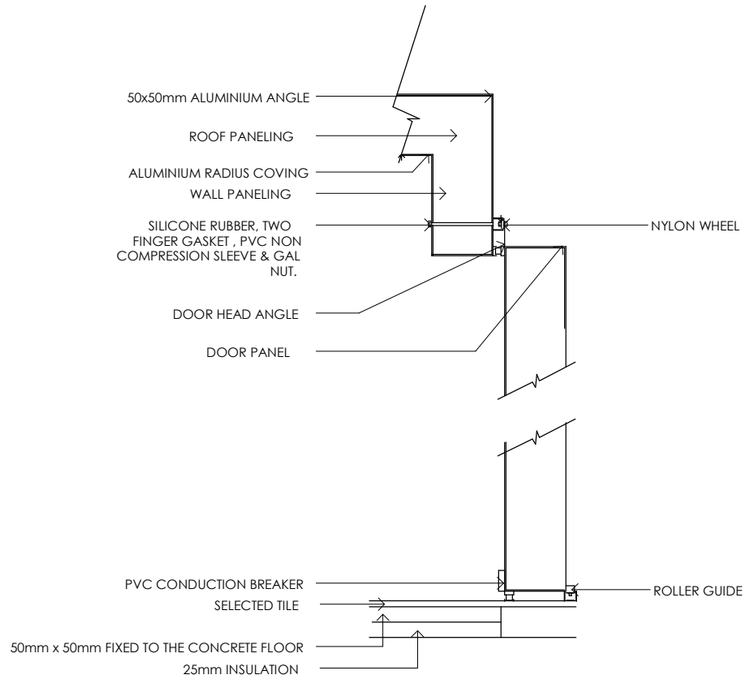
1. Wall panel
2. 25mm insulation
3. Selected floor tiles
4. Aluminum radius corner mould
5. Fixings
6. Bedding (falls to wastes)
7. 50mm x 50mm base aluminum angle
8. Concrete fixing to floor
9. 300m perimeter vapour barrier
10. Internal vapour barrier the width of the Cold Room
11. Mastic sealant

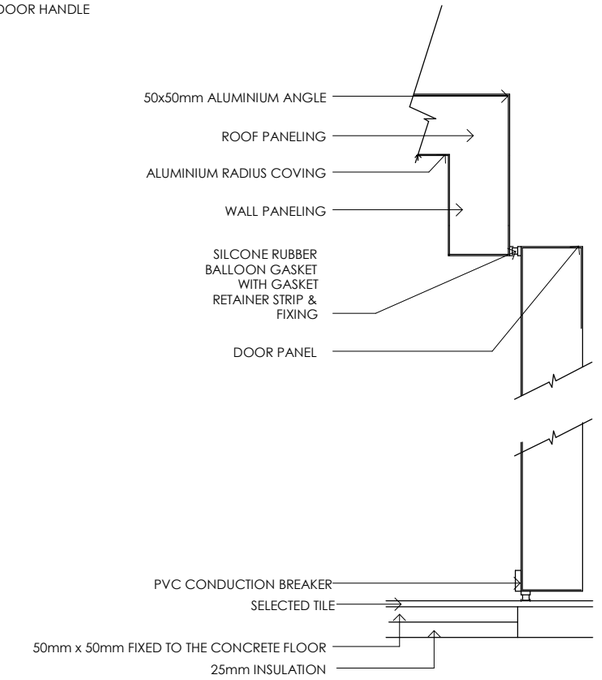


1. WALL PANELLING
2. COLD ROOM DOOR
3. DOOR FRAME CHANNEL
4. SAFETY RELEASE MECHANISM
5. PVC NON COMPRESSION SLEEVE
6. 16mm ACETOL BOLT
7. GALVANISED NUT
8. LOCKING PLATE
9. LOCKING PIN
10. MANUAL AUDIBLE ALARM BELL
11. SILICON RUBBER TWO FINGER GASKET
12. CELLULAR PVC FASCIA
13. GALVANISED WASHER
14. HANDLE



1. WALL PANELLING
2. COLD ROOM DOOR
3. DOOR FRAME CHANNEL
4. ALUMINIUM DOOR FASCIA
5. LOCKING PIN ROLLER CATCH
6. LOCKING PIN & WALL ASSEMBLY
7. DOOR HANDLE
8. MANUAL AUDIBLE ALARM BELL
9. DOOR HINGE ASSEMBLY
10. HINGE MOUNTING POST
11. HINGE MOUNTING POST FIXING BOLTS WITH PVC NON COMPRESSION SLEEVE
12. EMERGENCY RELEASE WING NUT





SLIDING DOOR DETAIL

SWING DOOR DETAIL

COLDROOM DOOR DETAILS

1 : 10

Revision Description	#	Date

2206

DOMINO'S PIZZA ENTERPRISES LIMITED

DOMINO'S WAIPUKARAU

63 RUATANIWHA STREET, WAIPUKURAU 4200

COLDROOM DETAIL

Scale: 1 : 10 | Sheet Size: A3 | Issue Date: 16_02_22

Drawing No: A163 | Revision:

COLD ROOM & REFRIGERATION

GENERAL:

THE FOLLOWING INFORMATION GENERALLY OUTLINES THE DESIGN CRITERIA FOR A TYPICAL DOMINO'S PIZZA STORE COLD ROOM. CRITERIA AND ASSOCIATED EQUIPMENT ARE BASED ON A STANDARD 4.8M X 2.4M X 2.4M (H) COLD ROOM OVER A 24 HRS PEAK LOAD PERIOD. WHILE DIFFERING COLD ROOM SIZES MAY MEAN EQUIPMENT AND PERFORMANCE CAN BE MORE ACCURATELY DESIGNED, COSTINGS SHOULD BE BASED ON THE FOLLOWING STANDARD INFORMATION.

EQUIPMENT CAPACITY

EQUIPMENT CAPACITY WILL BE DETERMINED BY THE HEAT LOAD CALCULATION PROVIDED. THE INSTALLING CONTRACTOR IS RESPONSIBLE ENSURING THAT THE SIZING IS BASED THIS CALCULATION.

GENERALLY, THE POSITIONING OF REFRIGERATION EQUIPMENT WILL DIFFER FROM STORE TO STORE, BUT THE REMOTE INSTALLATION OF THE REFRIGERATION EQUIPMENT IS THE MOST PREFERRED OPTION, HOWEVER WHERE THERE IS NO OTHER OPTION THE EQUIPMENT CAN BE MOUNTED ON TOP OF THE COLD ROOM.

WITHIN THIS SECTION, ARE A SERIES OF DIAGRAMS GIVING THE COLD ROOM PANEL DETAILS AND WHICH ILLUSTRATE THE GENERAL CONSTRUCTION OF THE COLD ROOM. ALTERNATIVE SYSTEMS AND DETAILS MUST BE SUBMITTED TO DOMINO'S DEVELOPMENT DEPARTMENT FOR APPROVAL PRIOR TO COMMENCING WORK. THE COLD ROOM IS TO INCLUDE AN EMERGENCY ALARM AND REMOVABLE DOOR SYSTEM. ALL PANELS MUST COMPLY WITH AS1366.3.

CONSTRUCTION:

CONSTRUCT A COLD ROOM TO AN INTERNAL CEILING HEIGHT OF 3000MM UNLESS OTHERWISE SPECIFIED. THE COLD ROOM IS TO BE CONSTRUCTED FROM 100MM COLD ROOM PANELS FIXED DIRECTLY TO THE TENANCY FLOOR. PANELS FOR FREEZERS MUST 150MM. **THE NEW COLD ROOM FLOOR SHOULD BE SEPARATED AND INSULATED FROM THE TENANCY FLOOR WITH A PLASTIC SEALED MEMBRANE AND 25MM POLYURETHANE APPROVED INSULATION. FREEZER ROOMS MUST HAVE 150MM POLYURETHANE.** THE FINISHED COLD ROOM FLOOR LEVEL SHOULD ALIGN WITH THE REST OF THE KITCHEN ALLOWING MOBILE TROLLEY ACCESS. UNLESS A RECESS HAS BEEN ALLOWED IN THE TENANCY SLAB THIS MAY MEAN A STEP BETWEEN KITCHEN AND COLD ROOM FLOOR. IN THIS SITUATION THE KITCHEN FLOOR SHOULD BE GRADED AT A MAXIMUM OF 1:14 TO MEET THE COLD ROOM FLOOR. SELECTED KITCHEN FLOOR TILES SHOULD RUN CONTINUOUSLY INTO THE COLD ROOM AREA. THE COLD ROOM FLOOR SHOULD BE CONSTRUCTED WITH FALLS TO THE DOOR. WHERE THERE ARE TWO DOORS TO THE COLD ROOM, THE FLOOR IS TO BE GRADED TO FALL TO BOTH ENTRANCES. INTERNALLY FINISH THE JUNCTION BETWEEN COLD ROOM PANELS AND FLOOR AND ALL PANEL CORNER JUNCTIONS WITH AN ALUMINUM COVING.

ALL INTERNAL CEILINGS AND WALL CORNERS WILL BE ALUMINIUM COVED AND SEALED WITH CLEAR SILICONE. WHERE THE FLOOR TILES MEET THE COOL ROOM DOOR OPENING AN ALUMINIUM COVE MUST SEAL THIS SECTION THIS MUST NOT ONLY BE FILLED WITH GROUT.

ALUMINIUM COVING TO BE APPLIED TO THE OUTSIDE OF THE COOL ROOM (VERIFY WITH LOCAL COUNCIL ON REQUIREMENTS PRIOR TO COMMENCEMENT OF WORKS)

INSTALL INFILL PANELS ABOVE THE COLD ROOM, THE INFILLS WILL BE CONSTRUCTED FROM WHITE HMR BOARD OR COLORBOND INSULATE PANELS, TRIM INFILLS USING ALUMINUM TO MATCH THE GENERAL COLD ROOM CONSTRUCTION. WHERE POSSIBLE FIT A SWING PERSONAL ACCESS DOOR ALONG THE SIDE NOT FACING THE CUSTOMERS. THE DOOR WILL BE FLUSH FITTING WITH A SEAL TO MAKE IT VERMIN PROOF. THE COLD ROOM AND INFILLS WILL BE TRIMMED TO THE ADJOINING WALLS USING ONE LENGTH OF ALUMINUM ON COMPLETION OF WALL TILING.

THE LIGHT SWITCH LOCATED INTERNALLY WITHIN THE COOL ROOM MUST INCORPORATE A NEON INDICATOR TO COMPLY WITH CURRENT AUSTRALIAN STANDARDS.

DOOR:

ACCESS INTO THE COLD ROOM IS TO BE VIA 800MM CLEAR OPENING, SWING WIPER SEAL DOORS WITH HEAVY DUTY CATCHING AND HINGING. INSTALL A DOORSTOP AT EACH DOOR TO PREVENT DAMAGE TO SURROUNDING JOINERY. INSTALL HEAVY DUTY CLEAR PLASTIC STRIP CURTAINS TO THE INSIDE OF THE COLD ROOM DOORS. THE CURTAINS SHOULD BE ABLE TO BE REMOVED FOR CLEANING. ENSURE SAFETY BELLS ARE FITTED TO ALL DOORS.

WHERE A HINGED DOOR HAS BEEN INSTALLED – CHEQUERPLATE MUST BE INSTALLED TO THE BOTTOM THIRD OF THE DOOR TO ACT AS A METAL KICKPLATE.

WHERE SITE PLANS INDICATE A SLIDING DOOR TO BE INSTALLED THIS MUST HAVE A GRAVITY WEIGHT MECHANISM TO ENABLE SELF CLOSING. A TIMER CONTACT MUST ALSO BE INSTALLED TO ALARM WHEN THE DOOR IS LEFT OPEN FOR LONG PERIODS OF TIME.

"ONLY THE CONTRACTED COLD ROOM INSTALLER IS TO REMOVE AND REINSTATE THE COLD ROOM DOOR AFTER INITIAL INSTALLATION".

REFRIGERATION:

REFRIGERATION EQUIPMENT MUST BE SIZED ACCORDING TO THE HEAT LOAD CALCULATION PROVIDED.

COLDROOM HEAT LOADING CALCULATIONS:
75 LITRES OF SOFT DRINK 25 DEGREE AMBIENT TO 1 DEGREE IN 18 HOURS
COLD WATER 170LITRES ENTERING AT 25 DEGREES DOWN TO 1 DEGREE IN 18 HOURS
250 KG OF PIZZA BASE ENTERING AT 22 DEGREES DOWN TO 1 DEGREE IN 18 HOURS
1875 KG OF TOPPINGS ENTERING AT 11 DEGREES DOWN TO 1 DEGREE IN 18 HOURS

INSTALL REFRIGERATION EQUIPMENT ON A SUITABLE METAL FRAME LOCATED EXTERNALLY, AT THE REAR OF THE TENANCY, ROOF OF THE TENANCY OR IN THE CEILING AS A LAST RESORT ONLY. (ELECTRICAL ISOLATOR WILL BE LOCATED TO SUIT BY THE SITE ELECTRICAL CONTRACTOR). CONSIDERATION SHOULD BE GIVEN TO WEATHERPROOFING AND NOISE CONTROL IN SITUATIONS WHERE EQUIPMENT IS LOCATED EXTERNALLY AS IN CLOSE PROXIMITY TO NEIGHBOURING PROPERTIES, SHOULD BE ALLOWED FOR WHEN POSITIONING THE EQUIPMENT AND CONSTRUCTING THE UNIT HOUSING. SWITCHING WILL BE LOCATED AT THE SHOP SWITCHBOARD AND THE SYSTEM WILL BE CONTROLLED BY AN ELECTRONIC FAILSAFE DIGITAL READOUT UNIT. REFRIGERATION EQUIPMENT SHOULD BE ENGINEERED TO A HEAVY DUTY STANDARD.

RUN THE RELEVANT CONDENSATE DRAIN WITH A TRAP IN PVC TO SUIT LOCAL COUNCIL CODES, THE DRAIN WILL TERMINATE AT A TUNDISH SUPPLIED AS PART OF THE SHOP DRAINAGE LOCATED NEAR THE END OF THE COLD ROOM. REFER TO HYDRAULIC PLANS FOR MORE INFORMATION.

DRAFT

2 0 2 4 6 8 10 12m
SCALE 1 : 250

Disclaimer:
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BTW COMPANY
SURVEYING
ENGINEERING
PLANNING
ENVIRONMENT

NO	DATE	BY	CHKD	APPR	OPER	DESCRIPTION
A	02.22	LV	GJ	.	.	ISSUED FOR APPROVAL

REVISIONS

NUMBER	TITLE

REFERENCE DRAWINGS

1. Coordinates in terms of : NA
2. Elevations in terms of : NA
3. Contour interval is : NA

GENESIS ENERGY LTD

LOCATION	63 RUATANIWHA ST	
PROJECT No.	220148	
A3 SCALE	1:250	
DESIGNED	-	-
DRAWN	L.VASEY	02.22
CHECKED	G JOHNSTON	02.22

TITLE
DOMINOS PIZZA WAIPUKURAU
CYLINDER STORAGE
LOCATION PLAN

ORIGINAL SIZE	DRAWING No	SHEET	REVISION
A3	220148-02	1	A

File Name: C:\12dsl\data\BTW\12D\220148 - Genesis Energy_4468\07 Drawings\220148-02 ltc.dwg - SHT 1 Plot Date: 21/02/2022 Plot Time: 09:09

AREA	ZONE 2	AS/NZS 60079.10.1:2009 CLAUSE
LPG CYLINDER STORAGE	WITHIN SPACE 0.5 M ABOVE AND 0.5 M LATERALLY FROM ANY CYLINDER VALVE, EXTENDING TO A DISTANCE OF 1.5 M LATERALLY AT THE BASE OF THE CYLINDER	ZA.6.5.2.16

KEY

HAZARD ZONES

ZONE 2

APPROVED
BC220054
12/05/2022
Duncan Renner
Page 32 of 47
Central Hawke's Bay District Council

LEGEND
SEPARATION DISTANCES

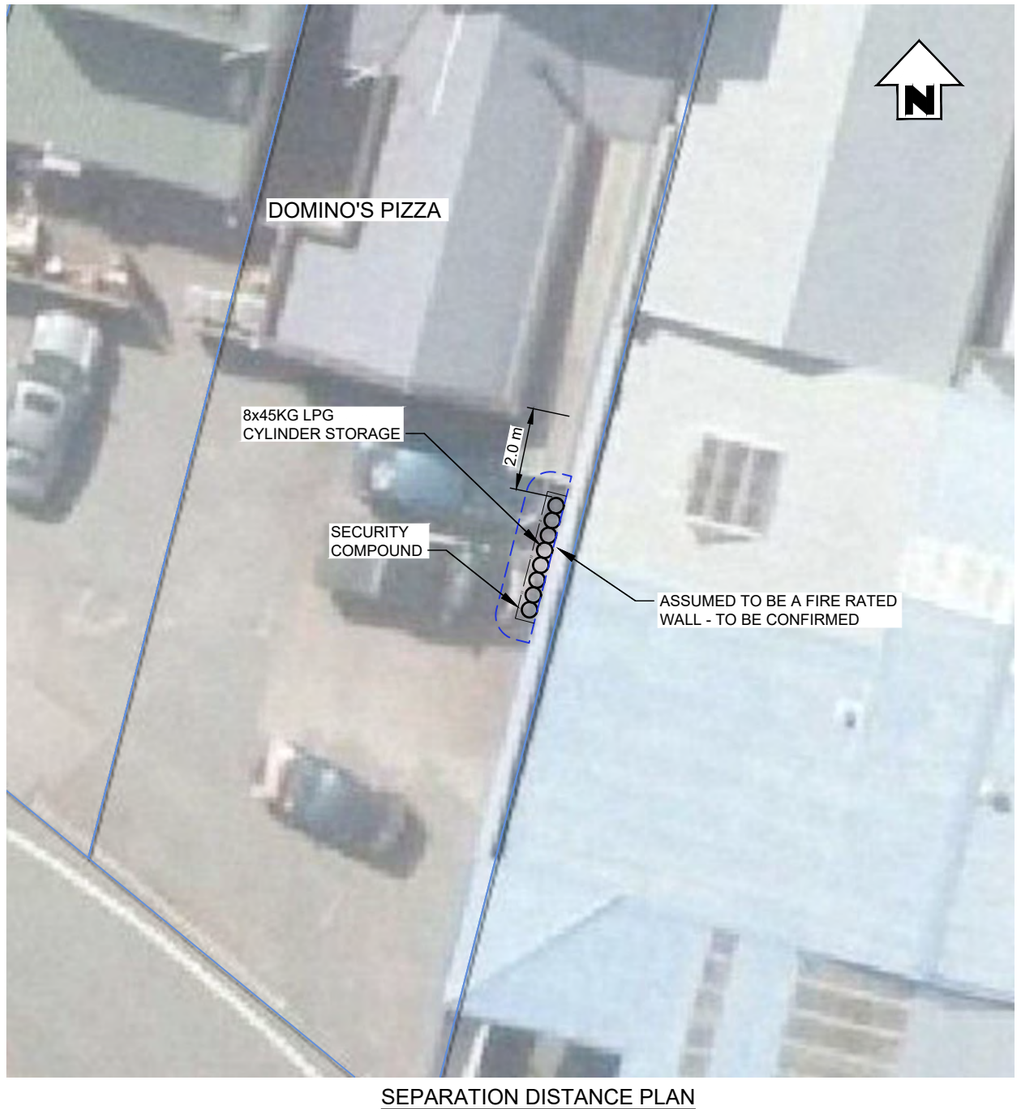
PUBLIC PLACE

NOTES:

1. SEPARATION DISTANCE MEANS AN AREA ABUTTING A HAZARDOUS SUBSTANCE LOCATION THAT IS REGULATED SO THAT:
   (A) WITHIN THE ZONE, THE ADVERSE EFFECTS OF A HAZARDOUS SUBSTANCE ARE REDUCED OR PREVENTED; AND
   (B) BEYOND THE ZONE, MEMBERS OF THE PUBLIC ARE PROVIDED WITH REASONABLE PROTECTION FROM THOSE ADVERSE EFFECTS

2. IN AREAS DESIGNATED PUBLIC PLACE, THE RELEVANT SEPARATION DISTANCES ARE:
   (A) LPG CYLINDER STORAGE PAD (0.36T) IS 0.6m

HAZARDOUS ZONES PLAN
SCALE 1:150



SEPARATION DISTANCE PLAN
SCALE 1:150

1.5 0 1.5 3 4.5 6 7.5m

SCALE 1 : 150

DRAFT

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NO	DATE	BY	CHKD	APPR	OPER	DESCRIPTION
A	02.22	LV	GJ	.	.	ISSUED FOR APPROVAL

REVISIONS

NUMBER	TITLE

REFERENCE DRAWINGS

1. Coordinates in terms of : NA
2. Elevations in terms of : NA
3. Contour interval is : NA

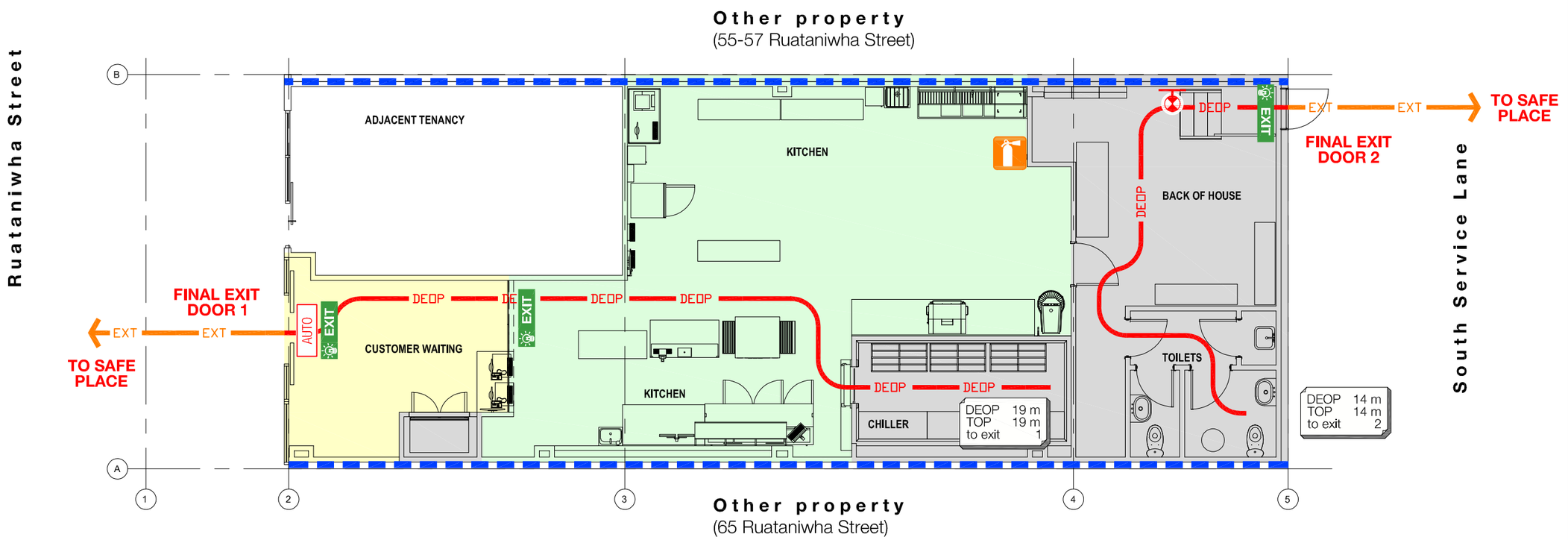
GENESIS ENERGY LTD

LOCATION	63 RUATANIWHA ST	
PROJECT No.	220148	
A3 SCALE	1:150	
DESIGNED	-	-
DRAWN	L.VASEY	02.22
CHECKED	G JOHNSTON	02.22

TITLE
DOMINOS PIZZA WAIPUKURAU
CYLINDER STORAGE
SEPARATION DISTANCE AND HAZARDOUS ZONES PLAN

ORIGINAL SIZE	DRAWING No	SHEET	REVISION
A3	220148-02	02	A

File Name: C:\12dsl\data\BTW12D\220148 - Genesis Energy_446807 Drawings\220148-02 ltc.dwg - SHT 2 Plot Date: 21/02/2022 Plot Time: 09:09



Occupant capacity

COLOUR CODE	SPACE	RISK GROUP	OCCUPANT DENSITY (m^2 per person)	FLOOR AREA (m^2)	OCCUPANT CAPACITY	WALL, CEILING AND FLOOR SURFACE RESTRICTIONS
	Customer Waiting	CA	1.4	18	13	Ceilings GN2S, Walls GN2S, Floors CRF>1.2
	Kitchen	WB	10	79	8	Ceilings GN3, Walls GN3, Floors CRF>1.2
	Storage and Amenities	WB	0	57	0 (counted elsewhere)	Ceilings GN3, Walls GN3, Floors CRF>1.2
TOTAL				154	21	

GN = max permitted Group Number rating
CRF = min permitted Critical Radiant Flux

Worst case escape route lengths

SPACE	RISK GROUP	FIRE ALARM	DEAD END LENGTH (actual / maximum permitted)	TOTAL OPEN PATH LENGTH (actual / maximum permitted)	TERMINATING AT
Chiller	CA	NA	19 m / 20 m	19 m / 50 m	EXIT 1
Toilets	WB	NA	14 m / 25 m	14 m / 60 m	EXIT 2

Escape route types

EXT — External escape route.

DEOP — Dead End Open Path escape route.

FINAL EXIT DOOR — Final Exit doors from the building requiring door thresholds no greater than 20mm high, level landing extending at least 400mm beyond the door swing, and ramps or stairs in accordance with D1/AS1 at any change in level. Door locking devices are required to be 'simple fasteners'.

When the building is occupied during its reasonable foreseeable use, doors and gates must be openable in the direction of escape without the use of a security device (key or pin) to unlock the door. All door hardware is required is to be easily operated with a single hand.

SAFE PLACE — Point that an escape terminates giving direct access to land which there are, and will be, no buildings and has no roof over any part of it, enabling occupants to safely disperse after escape the effects of fire.

Emergency lighting

SS4 — Existing emergency light to comply with NZBC F6/AS1 with self contained battery backup power supply (SS14).

Fire rated construction

Existing 120/120/120 minute fire rated construction, as per previous reports.

Other fire safety features

AUTO — SS3 — Existing auto sliding doors fitted with backup power supply (SS14) and press button over-ride.

EXIT — SS15d — One sided continuously illuminated exit sign, with 75 mm high white text on safety green background in accordance with NZBC F8/AS1, fitted with emergency illumination (SS4) and self contained backup power supply (SS14).

New Fire Extinguisher Installed to NZS4503:2005.

APPROVED
BC220054
12/05/2022
Duncan Renner
Page 33 of 47
Central Hawke's Bay District Council

PRINT THIS DRAWING IN COLOUR ON PAPER NO LESS THAN A3

N

SCALE 1:100 @ A3
0 1m 2m 3m 4m 5m

REV	DATE	NOTES
A	22 Feb 2022	First Issue.

Objective
Level 2, 17 Victoria Avenue, Palmerston North 06 3549909

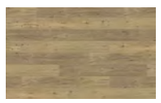
PROJECT
Internal Alterations and Change of Use

63 Ruataniwha Street,
Walpukurau

SHEET
Means of escape plan

SCALE	PREPARED
1:100 at A3	JK

UNDERLAID PLANS PROVIDED COURTESY:	PROJECT	SHEET	REVISION
SACH	DF021-63	FA1 (1 of 1)	A

CODE	DESCRIPTION	SPECIFICATION	LOCATION	COMMENTS	IMAGE	SUPPLIER
PA01	PAINT WHITE	COLOUR: NATURAL WHITE ACRYLIC SATIN FINISH	BOH			DULUX
PA02	PAINT BLACK	DULUX PG1A9 SATIN FINISH	CEILINGS/ BULKHEADS			DULUX
PA03	PAINT	FAINT GREEN WOODSTAIN COLOUR - RESENE COLORWOOD SPECIAL MIX FOR DOMINOS WITH AQUACLEAR SATIN TOPCOAT. BUILDERS TO LIASE WITH DEISGNERS AND PAINT CONSTULANT ON SPECIAL MIX COLOUR AND APPLICATION	RURAL AREA FIT-OUTS - AS SPECIFIED			RESENE
PA04	PAINT	BLACKJACK - N26-002-176 RESENE BROADWALL SEALER/UNDERCOAT - 1 COAT 2 TOPCOATS OF RESENE SPACECOTE - SATIN IN BLACKJACK	CEILING/UNDERSIDE OF B'HEAD			RESENE
FL01	FLOOR VINYL	POLYSAFE APEX - CHROMITE 4202 - NCS S 6500-N	BOH -FLOOR			https://www.polyflor.com.au/product/polysafe-apex/
FL02	FLOOR VINYL	EXPONA COMMERCIAL - SHORELINE OAK 4078	FOH - FLOOR			https://www.polyflor.com/jh/products.nsf/products!open&family=lux&prodcode=ecw1&shade=4078
FL03	FLOOR TILE	FHTC Anthracite 300x300 Cove – Colour Dot Anthracite Cove 100x200	BOH -FLOOR			NATIONAL TILES
FL04	FLOOR TILE	CPNT-N694 ASH 600X600	FOH -FLOOR			NATIONAL TILES
FL05	FLOOR VINYL	EXPONA COMMERCIAL - LIGHT GREY CONCRETE 5167	FOH -FLOOR			POLYFLOR
FL06	FLOOR VINYL	Expona Superplank Blond Oak #2109	BOH -FLOOR			https://rightfloors.com.au/polyflor-expona-superplank-blond-oak-1219mm-x-184mm-x-2mm.html
FL07	FLOOR VINYL	Forbo Safestep in Elephant finish (175952)	BOH -FLOOR			https://www.forbo.com/flooring/en-au/products/step-safety-vinyl-wetroom/safestep-safety-vinyl/safestep-r12/bt7shn
WA01	WALL VINYL	EXPONA FLOW - LIGHT INDUSTRIAL CONCRETE 9860	FOH WALLS- AS SPECIFIED	TO HAVE 20X20 CORNER ANGLE - POWDERCOAT BLACK		https://www.polyflor.com.au/product/expona-flow-pur/
WA02	WALL VINYL	SURFACE Upper Ash and is light grey	FOH WALLS- AS SPECIFIED			https://professionals.tarkett.com.au/en_AU/collection-C001607-iq-surface/surface-solid-upper-ash

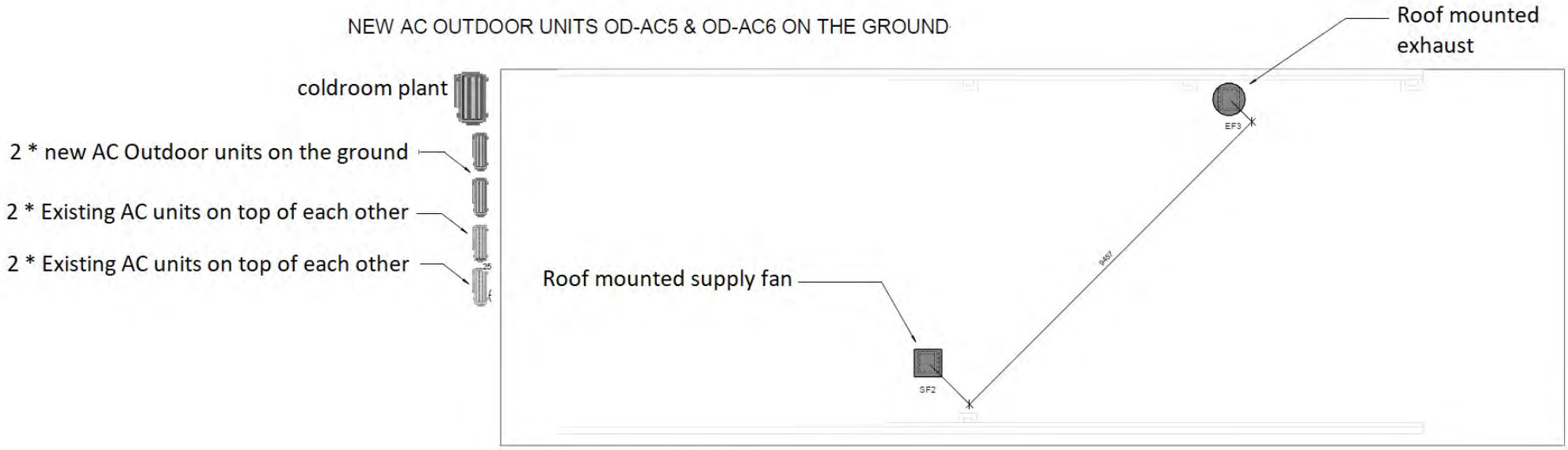
FA01	COMMERCIAL UPHOLSTREY FABRIC	URBAN - DOMINO	BENCH SEAT			WORTLEY GROUP https://austexfabrics.com.au/vinyl/urban/
ST01	STONE COUNTER TOP	BIANCO VENETO QUARTZ	COUNTER TOPS		 40mm POLISHED	WK QUANTUM QUARTZ
ST02	STONE COUNTER TOP	BLACK QUARTZ	COUNTER TOPS		40mm POLISHED	CSS
TM02	WALL PANELING	PLYWOOD : Specs: MARIMP241206 MARINE PLY – BS 6566 AA : 2440 X 1220 X 6mm Plywood – 5Ply 11.61kg Hardwood Species: (PINK) - TO HAVE PA03 PAINT FINISH. APPLY AS RECOMMENDED BY PAINT SUPPLIER.	AS SPECIFIED			SHOPFITTER
TM09	LAMINATE	LAMINEX ABSOLUTEGRAIN - AGED WALNUT - CHALK FINISH- 42mm X 1mm ABS EDGING TO MATCH	JOINERY - TABLE TOPS, SHELVES, BINS, ETC			LAMINEX http://www.laminex.com.au/uploads/news/Laminex%20Absolute%20Series%20Brochure.pd f
	TM09 - ALTERNATIVE	BROWN STIRLING OAK MW. SKU: MWSWATCH9002		BOOKMATCH WHERE REQUIRED		https://nikpol.com.au/MWSW ATCH9002
TM11	TIMBER FINISH	WIRE BRUSHED RECLAIMED OREGON SKU: PbrOregon SIZE: 2400 x 180mm	COUNTER FRONT			https://www.simplywood.com.au/store/p7/Feature_Wall_-_Wire_Brushed_Reclaimed_Oregon.html
TM12	TIMBER FINISH	WIRE BRUSHED 'PIPLINE' FEATURE WALL PANELS' 2400X180X25MM PANELS TO BE PRE-FINISHED/COATED	AS SPECIFIED			https://www.northernriverstimber.com.au/brushed-pipeline-- feature-wall-panels.html
TM13	TIMBER FINISH	CODE: RECM2155 - RECLAIMED PINE RUSTIC CLADDING	AS SPECIFIED			https://www.havwoods.com/au/products/recm2040/
TM14	TIMBER FINISH	CODE: RECM3080 - RELIK ENGINEERED EUROPEAN OAK DRYDEN . 1900x190x15MM PANELS TO BE COATED	AS SPECIFIED			https://www.havwoods.com.au

WT02	WALL TILE	CAFE BLACK GLOSS- CODE: OF081/ NC1345 100mm x300mm **GROUT COLOUR: ANTHRACITE**	COUNTER FRONT			NATIONAL TILES
SK1	DIBOND	BLACK ALPOLIC MATT FINISH. ALL JOINS MUST BE SILCONE SEALED TO COMPLY WITH AS4674.	SKIRTING			SHOPFITTER
MF01	DIBOND WALL PANEL	SILVER ALPOLIC MATT FINISH. ALL JOINS MUST BE SILCONE SEALED TO COMPLY WITH AS4674.	BOH AREA WALLS			SHOPFITTER
MF02	DIBOND WALL PANEL	WHITE ALPOLIC MATT FINISH. ALL JOINS MUST BE SILCONE SEALED TO COMPLY WITH AS4674.	BOH AREA WALLS			SHOPFITTER
MT3	RUSTY CORRUGATED IRON	RECYCLED RUSTY CORRUGATED IRON REPLICATE IMAGE. SHEET SIZES TO VARY. SCREW FIXTURES TO CREATE DETAIL	AS SPECIFIED		 	https://www.recycledbuildingcentre.com.au/rusty-corrugated-iron-tin.-price-per-lineal-metre
PC1	FRAMEWORK	FRAMEWORK POWDERCOAT - DULUX - ARMOUR SPRAY - BLACK SATIN 9109024S	AS SPECIFIED			SHOPFITTER
FR1	WALL ART	PORTA COVER STRIP MERANTI MOULDING 30X8MM. SATIN CLEAR COAT	POSTER FRAME			https://www.bunnings.com.au/porta-cover-strip-meranti-moulding-30-x-8mm-3-0m_p0090326
FR2	WALL ART	68 X 11mm CLEAR PINE SA2 COLONIAL MOULDING - SATIN CLEAR COAT	POSTER FRAME			https://www.bunnings.com.au/68-x-11mm-clear-pine-sa2-colonial-moulding-per-linear-metre_p0020802
CH4	STOOL	CSSC6315/450mm: BLACK STACKING STOOL 450mm HIGH.	STOOLS TO TABLES			CSS
CH5	BAR STOOL	CSSC6315/760mm: BLACK STACKING STOOL 760mm HIGH.	HIGH BAR STOOLS			CSS

CH6	BAR STOOL	CSSC6315/660mm: BLACK STACKING STOOL 660mm HIGH.	HIGH BAR STOOLS			CSS
CH11	CUSTOM BARREL	STOOLS - 450-500mm OVERALL HEIGHT INCL SEAT/LCSHION	AS SPECIFIED			**CSS**
BQ1	BANQUETTE BOOTH SEATIN	BRAND: APEX 1200W X 700D X 900H COLOR: BLACK	AS SPECIFIED			https://www.apex.com.au/banquette-booth-seating.html?m=configurable&gclid=EAIaIQobChMIue6P4JHB3QIVGwUqCh30sAmeEAYYASABEgK5IvD_BwE
L4	WALL LIGHT	Black Vision Eco LED Exterior Adjustable Single Pillar light IP65 SKU: 64377	AS SPECIFIED			https://www.lightingillusions.com.au/shop/wall-lighting/black-vision-eco-led-exterior-adjustable-single-pillar-light-ip65-17875-06-20238
L5	WALL LIGHT	2 x 5W LED Warm White Matte Black Exterior IP65 Double Adjustable LED Spot Light 240V GU10 SKU: 61497	AS SPECIFIED			https://www.lightingillusions.com.au/shop/240-volt/2-x-5w-led-warm-white-matte-black-exterior-ip65-double-adjustable-led-spot-light-240v-gu10-hv1327gu10w-14042
L6	WALL LIGHT	LEDLUX DISK LED 250MM BLACK WALL LIGHT IN WARM WHITE	AS SPECIFIED			https://www.beaconlighting.com.au/ledlux-disk-led-150mm-black-wood-wall-light-in-warm-white-8c9ed3
L13	PENDANT LIGHT	LARGE DOME EVERTOP BLACK PENDANT LIGHT SKU:69163 : 300MM DIA	AS SPECIFIED			**https://www.lightingillusions.com.au/shop/pendant-lights/large-dome-evertop-black-pendant-light-8220-1p-31040**
TA02	TIMBER TABLE	600X600X750Hmm, **40mm thick TM09 finish. TB1 base**	AS PER PLAN			SHOPFITTER
TA03	TIMBER TABLE	1200X600X750Hmm, **40mm thick TM09 finish. TB2 base**	AS PER PLAN			SHOPFITTER

TB1	TABLE BASE	MAX TABLE BASE - 61 x 61 x 73cm (WDH)	TABLE BASE FOR 600X600MM TABLE TOPS			https://www.vorsen.com.au/collections/table-bases/products/max-table-base
TB2	TABLE BASE	MAX DINING TABLE BASE	TABLE BASES FOR 1200X600MM TABLE TOPS			https://www.vorsen.com.au/collections/table-bases/products/max-dining-table-base-black
WM1	MESH PANEL	WELD MESH 50X50mm	AS SPECIFIED			SHOPFITTER
BR03	BRICK CLADDING	VS8090 INDUSTRI Olde Watermill Brick Slip, Genuine recycled British Handmade Clay Bricks, Blended and Rumbled, 210 x 65 x 20mm, 60 per m2	AS SPECIFIED			www.vidaspace.co.nz
		VS8001 INDUSTRI Olde Watermill Brick Slip Corner - Genuine British Handmade Clay Bricks, Blended and Rumbled, 210 x 65 x 20 x 102.5mm, 14 brick slip corners per vertical l/m	AS SPECIFIED			www.vidaspace.co.nz
BR04	BRICK CLADDING	RESIDENTIAL WAREHOUSE BLEND; GROUT MIST WHITE OR SIMILAR. TO MATCH IMAGE.	AS SPECIFIED			https://empirebrick.com.au/bricks/brick-colours/recycled-bricks
		CORNER BRICK	AS REQUIRED			www.empirebrick.com.au
GL1	GLOBES	Sphere 95 LED 4W Fancy Energy Efficient LED Filament Globe Edison Screw (E27) - SKU: 143279	AS PER PLAN			https://www.lightingillusions.com.au/shop/carbon-filament-globes/sphere95-25w-fancy-carbon-filament-globes-edison-screw-e27-9e2714-12902
GL2	GLOBES	Sphere 125 LED Fancy Energy Efficient LED Filament Globe Edison Screw (E27) - SKU: 143328	AS PER PLAN			https://www.lightingillusions.com.au/shop/carbon-filament-globes/sphere125-25w-fancy-carbon-filament-globes-edison-screw-e27-9e2715-12904

CO1	FABRIC CORD SET	BLACK DIY GYPSY 3M FABRIC CORD SET WITH PLUG, LEAD & E27 LAMP HOLDER	AS PER PLAN			https://www.lightingillusions.com.au/shop/childrens-lights/black-diy-gypsy-3m-fabric-cord-set-with-plug-lead-and-e27-lampholder-ma97blk-15462
SN02	SLOGAN: SLOW WHERE IT MATTERS, FAST WHERE IT COUNTS	1000mmL - ON TIMBER: STENCIL PAINT USING MATT WHITE PAINT. DOMINO'S LOGO TO MATCH PANTONE COLOURS. ON BRICK & VINYL: STENCIL USING DULUX - DOMINO* SG6G8 PAINT FINISH	AS SPECIFIED	NOTE: TIMBER GRAIN TO BE VISIBLE ON APPLICATION. STENCIL TO BE CENTERED TO WALL. UNLESS OTHERWISE SPECIFIED ON ELEVATIONS		Signage contractor to liase with designer
SN03	SLOGAN: SLOW WHERE IT MATTERS, FAST WHERE IT COUNTS	1350mmL - ON TIMBER: STENCIL PAINT USING MATT WHITE PAINT. DOMINO'S LOGO TO MATCH PANTONE COLOURS. ON BRICK & VINYL: STENCIL USING DULUX - DOMINO* SG6G8 PAINT FINISH	AS SPECIFIED	NOTE: TIMBER GRAIN TO BE VISIBLE ON APPLICATION. STENCIL TO BE CENTERED TO WALL. UNLESS OTHERWISE SPECIFIED ON ELEVATIONS		Signage contractor to liase with designer
SN04	SLOGAN: SLOW WHERE IT MATTERS, FAST WHERE IT COUNTS	1500mmL - ON TIMBER: STENCIL PAINT USING MATT WHITE PAINT. DOMINO'S LOGO TO MATCH PANTONE COLOURS. ON BRICK & VINYL: STENCIL USING DULUX - DOMINO* SG6G8 PAINT FINISH	AS SPECIFIED	NOTE: TIMBER GRAIN TO BE VISIBLE ON APPLICATION. STENCIL TO BE CENTERED TO WALL. UNLESS OTHERWISE SPECIFIED ON ELEVATIONS		Signage contractor to liase with designer
SN05	SLOGAN: SLOW WHERE IT MATTERS, FAST WHERE IT COUNTS	2000mmL - ON TIMBER: STENCIL PAINT USING MATT WHITE PAINT. DOMINO'S LOGO TO MATCH PANTONE COLOURS. ON BRICK & VINYL: STENCIL USING DULUX - DOMINO* SG6G8 PAINT FINISH	AS SPECIFIED	NOTE: TIMBER GRAIN TO BE VISIBLE ON APPLICATION. STENCIL TO BE CENTERED TO WALL. UNLESS OTHERWISE SPECIFIED ON ELEVATIONS		Signage contractor to liase with designer
SN06	SLOGAN: SLOW WHERE IT MATTERS, FAST WHERE IT COUNTS	1700mmL ON TIMBER: STENCIL PAINT USING MATT WHITE PAINT. DOMINO'S LOGO TO MATCH PANTONE COLOURS.ON BRICK & VINYL: STENCIL USING DULUX - DOMINO* SG6G8 PAINT FINISH	AS SPECIFIED	NOTE: TIMBER GRAIN TO BE VISIBLE ON APPLICATION. STENCIL TO BE CENTERED TO WALL. UNLESS OTHERWISE SPECIFIED ON ELEVATIONS		Signage contractor to liase with designer



Waipukurau Plant Layout

fluid Engineering Consultancy

DOMINOS WAIPUKURAU

63 RUATANIWHA STREET
WAIPUKURAU

HYDRAULIC

AHSCA

ace new zealand MEMBER

PLUMBING FIXTURES

ABBREVIATION / SYMBOL	DESCRIPTION
	PLUMBING FIXTURES
HWC	HOT WATER CYLINDER
HWU	HOT WATER UNIT
WM	WASHING MACHINE
DW	DISH WASHER
WD	WASHER DRYER COMBO
WC	WATER CLOSET / PAN
SHWR	SHOWER
WHB	WASH HAND BASIN
FWG	FLOOR WASTE GULLY TRAP
ORG	OVERFLOW RELIEF GULLY TRAP
AAV	AIR ADMITTANCE VALVE
HT	HOSE TAP
ACT	AIR CONDITIONING TUNDISH DRAIN
	PIPEWORK
SS	SANITARY SEWER
SW	STORM WATER
DCW	DOMESTIC COLD WATER
NP	NON POTABLE WATER
DHW	DOMESTIC HOT WATER
VENT	SANITARY VENT PIPE
	EQUIPMENT
PSF	FIXED SPEED PUMP
PSV	VARIABLE SPEED PUMP
IV	ISOLATION VALVE
PLV	PRESSURE LIMITING VALVE
PRV	PRESSURE REDUCING VALVE
M	METER
GM	GAS METER
TPV	TEMPERING VALVE
TMV	THERMOSTATIC MIXING VALVE
	GENERAL ABBREVIATIONS
AFFL	ABOVE FINISHED FLOOR LEVEL
AH	ACCESS HATCH
c/w	COMPLETE WITH
f	FLOW
FA	FROM ABOVE
FA/TB	FROM ABOVE TO BELOW
FB	FROM BELOW
FB/TA	FROM BELOW TO ABOVE
HL	HIGH LEVEL
HP	HIGH PRESSURE
IL	INVERT LEVEL
LL	LOW LEVEL
LP	LOW PRESSURE
r	RETURN
RL	RELATIVE LEVEL
SD	SET DOWN
SU	SET UP
TA	TO ABOVE
TB	TO BELOW
UNO	UNLESS NOTED OTHERWISE

PIPEWORK

ABBREVIATION / SYMBOL	DESCRIPTION
	DIRECTION OF FLOW
M	METER
	STRUCTURAL PENETRATION
	PUMP
ØSIZE	
SU	
SD	
SIZE SIZE	
SIZE SIZE	
SIZE SIZE	
SIZE SIZE	
AH	
AH	
AH	
OBD	
BDD	
3 A-02-GL-05	SECTION INDICATOR DETAIL NUMBER & SHEET NUMBER

GENERAL

DRAWING SHEET NUMBERING CONVENTION

EXAMPLE: FEC-DWG-MEC-A-02-GL-08

TYPE:
DWG - DRAWING
MOD - MODEL
IMG - IMAGES
DOC - DOCUMENT

AREA:
P - THE PA
A - BUILDING A
C - CONNECTOR

LEVEL:
GL - GROUND LEVEL
L1 - LEVEL 1
L2 - LEVEL 2

FEC - DWG - MEC - A - 02 - GL - 08

COMPANY:
FEC - FLUID ENGINEERING CONSULTANCY

DISCIPLINE:
MEC - MECHANICAL
HYD - HYDRAULIC
ELE - ELECTRICAL
FIR - FIRE

DRAWING TYPE:
00 - GENERAL & DETAILS
01 - SCHEMATICS
02 - DUCTWORK
03 - PIPEWORK

ZONE

ABBREVIATION / SYMBOL	DESCRIPTION

fluid Engineering Consultancy
Unit 1, 6 Hynds Road
Tauranga 3146
0274 224 511
www.fluidec.co.nz
mark@fluidec.co.nz

CLIENT: Domino's

ARCHITECT: SACH

ADDRESS: 63 RUATANIWHA STREET WAIPUKURAU

PROJECT NAME: DOMINOS WAIPUKURAU

DISCIPLINE: HYDRAULIC

LEGEND

FOR INFORMATION

DATE 21.02.2022	SCALE 1 : 5
SHEET NO H.001	HALF SCALE @ A3
REV A	JOB FHD826
DRAWN J.CAIRN	
DESIGN P.SCHILT	
CHECKED P.SCHILT	
FILE	

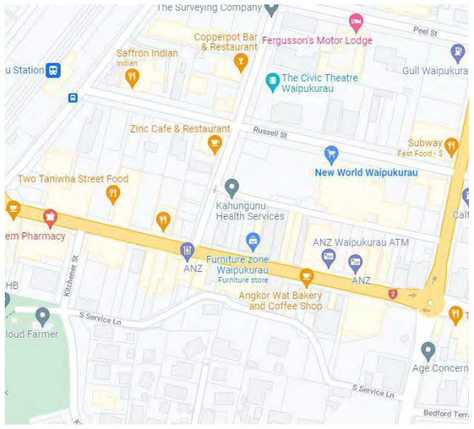
REVISIONS

Rev	Description	Date
A	FOR INFORMATION	21.02.2022

SHEET LIST HYDRAULIC

Sheet Number	Sheet Name	Current Revision
H.000	TITLE PAGE	A
H.001	LEGEND	A
H.002	SCOPE OF WORKS	A
H.100	GROUND FLOOR SANITARY	A
H.200	GROUND FLOOR WATER	A
H.300	GAS LAYOUT	A
H.803	GENERAL DETAILS	B

SITE MAP



NOTES

SCOPE OF WORKS

THE FOLLOWING WORKS ARE TO BE UNDERTAKEN AS DETAILED ON THESE PLANS AND GENERAL SPECIFICATION ATTACHED. THE PLUMBING CONTRACTOR IS TO UNDERTAKE ALL REQUIRED WORKS WITHIN THE SCOPE OF:

SANITARY DRAINAGE (INSIDE THE BUILDING LINE)

1. ALL SANITARY PIPEWORK TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.2:2018.
2. CONFIRM THE LOCATION AND SUITABILITY OF THE EXISTING SANITARY SEWER CONNECTION TO ENSURE THE REQUIRED DRAIN FALL IS AVAILABLEBEFORE THE INSTALLATION OF ANY NEW SUBFLOOR DRAINAGE WORKS.
3. ALL SUB FLOOR DRAINAGE AND VENT PIPEWORK IS TO BE INSTALLED IN PVC WITH PIPEWORK CONCEALED IN CEILING SPACES OR IN WITHIN WALL LININGS.
4. ALL SANITARY DRAINAGE ABOVE THE GROUND FLOOR IS TO BE INSTALLED AS A FULLY VENTED MODIFIED SYSTEM.
5. ALL ABOVE GROUND SANITARY DRAINAGE AND STACK PIPEWORK IS TO BE INSTALLED IN THE MARLEY OR IPLEX SN6 PVC PLUMBING SYSTEM
6. FLOOR WASTE GULLIES' (FWGS) (ALLPROOF CYCLONE TYPE) AND SEAL CLEAN OUT POINTS (COS) WHERE DETAILED ARE TO BE FITTED WITH CHRCMEPLATED GRATES/TOPS TO SUIT SELECTED FLOOR FINISHING'S, OVER A LEAK CONTROL FLANGE.
7. INSTALL HVAC CONDENSATION DRAINS FROM THE NEAREST FWG INTO CEILING SPACE FOR CONNECTION BY HVAC CONTRACTOR. UNLESS DETAILED FROVIDE NOT LESS THAN ONE HVAC CONDENSATION DRAIN DISCHARGE POINT FOR EACH TENANCY
8. ALL PENETRATIONS THOUGH SLAB OR FIRE WALLS WILL REQUIRE FIRE COLLARS – (ALLPROOF DROP IN FIRE COLLARS THOUGH FLOORS AND ALLPROOF STD FIRE COLLAR OR ANY WALL PENETRATIONS) REFER TO FIRE REPORT FORANY CLARIFICATIONS

SANITARY DRAINAGE VENTING METHODOLOGY

9. ALL COMMON DISCHARGE PIPES ON EACH LEVEL ARE TO BE VENTED VIA A STUDOR MINI AAV OR STANDARD VENTING.
10. A SINGLE FIXTURE PIPE DISCHARGING INTO A VENTED COMMON DISCHARGE PIPE ARE BE VENTED AN APPROVED STUDOR TRAP VENT WHERE THE TCTAL FIXTURE DISCHARGE PIPE EXCEEDS 2.5M IN LENGTH OR WHERE OTHERWISE REQUIRED, SUCH AS APARTMENT KITCHEN SINKS WHERE THE SINK IS NOT THE LAST FIXTURE ON A COMMON DISCHARGE PIPE.

HOT AND COLD WATER SUPPLIES

11. ALL WATER SUPPLY AND RETICULATION PIPE WORK AND FIXTURES TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.1:2018 AND AS/NZS 3500.4:2018.
12. THESE DRAWINGS SHOW PRIMARY WATER SUPPLIES TO EACH FLOOR AND SPECIFIC REQUIREMENTS ALONG WITH TYPICAL DETAILS. THE CONTRACTOR IS TO ALLOW FOR CONNECTION TO FIXTURES AS DETAILED IN FLUID GENERAL SPECIFICATIONS
13. HOT AND COLD WATER SUPPLY LINES AS DETAILED ON THESE PLANS ARE SHOWN AS THE **PIPE INTERNAL DIAMETER.**
14. INSTALL THE DOMESTIC COLD WATER SUPPLY C/W BACK FLOW PREVENTION DEVICES FOR WATER SUPPLY PROTECTION AS DETAILED IN THE FLUIDBACK FLOW PHILOSOPHY REPORT. INSTALL HOSE CONNECTION VACUUM BREAKERS TO ALL HOSE TAPS.
15. POTABLE COLD WATER SUPPLY LINES ARE TO BE INSTALLED FUSIOTHERM SDR11 FOR 25MM DIA (ID) AND ABOVE - BRANCHES CAN BE INSTALLED IN THE SAME PRODUCT OR AFTER THE INSTALLATION OF AN ISOLATION VALVE OR BE RUN IN PEX PIPEWORK (BELOW 25MM DIA).
16. ALL SANITARY FIXTURES TO BE FITTED WITH ISO VALVE SERVICE CONNECTORS FOR EASE OF FUTURE SERVICE.

GENERAL

17. ALLOW TO ATTEND CO-ORDINATION MEETINGS ON SITE WITH OTHER TRADES AND MAKE ANY NECESSARY CHANGES TO PIPE RUN LOCATIONS DETAILED ON THESE PLANS TOACCOMMODATE MECHANICAL SERVICES WHERE DUCTING AND PIPEWORK MAY CLASH.
18. SUPPLY AND INSTALL ALL REQUIRED PLUMBING FIXTURES AS PER THE FINAL SELECTION SCHEDULE PROVIDED (REFER TO THE ARCHITECTS PLANSFOR ALL FIXTURES SET OUTS AND DETAILS).
19. ANY WATER, WASTE OR VENT PIPEWORK PASSING FROM ONE FIRE CELL TO ANOTHER ARE TO BE FITTED WITH THE REQUIRED FIRE COLLAR TO SUIT SPECIFIED FIRE RATING (REFER TO FIRE REPORT).
20. ALLOW TO UNDERTAKE ALL REQUIRED CONCRETE CORE DRILLING FOR PLUMBING SERVICES.
21. ENSURE ALL FLOOR PENETRATIONS ARE WATERPROOFED TO PREVENT ANY WATER LEAKAGE PASSING THOUGH PIPE IN FLOORS PENETRATIONS AT ANYTIME.
22. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH NZ/AS3500 AND LOCAL AUTHORITY REQUIREMENTS.
23. THE INSTALLING PLUMBER IS TO LIAISE WITH THE LOCAL AUTHORITY FOR ALL NECESSARY INSPECTIONS PROVIDING APPROPRIATE NOTICE BEFOFE DUE INSPECTION.
24. ALL PIPEWORK FIXTURES ARE TO BE INSTALLED IN ACCORDANCE MANUFACTURER'S REQUIREMENTS BY LICENSED PLUMBERS WHOM ARE ENGAGED BY A QUALITY ASSURED - MASTER PLUMBER MEMBER.

APPROVED
BC220054
12/05/2022
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Central Hawke's Bay District Council

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CLIENT

ARCHITECT

ADDRESS
63 RUATANIWHA STREET
WAIPUKURAU

PROJECT NAME
DOMINOS WAIPUKURAU

DISCIPLINE
HYDRAULIC

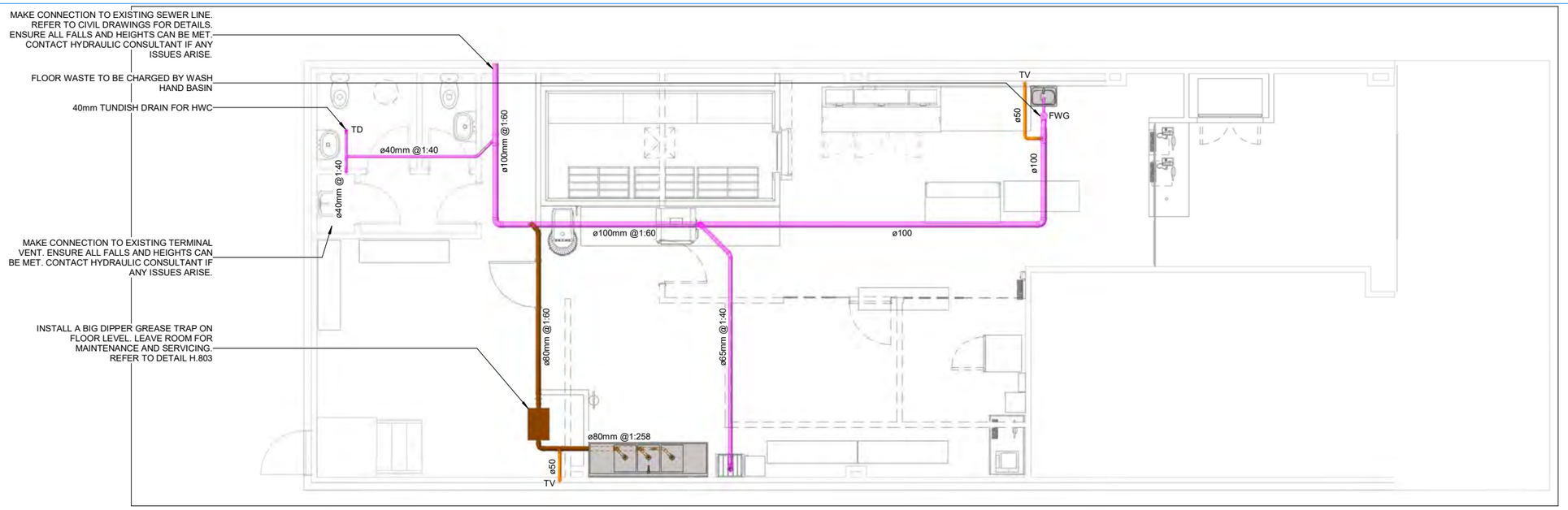
SCOPE OF WORKS

FOR INFORMATION

DATE 21.02.2022	SCALE
SHEET NO H.002	HALF SCALE @ A3
REV A	JOB FHD826
DRAWN J.CAIRN	
DESIGN P.SCHILT	
CHECKED P.SCHILT	
FILE	

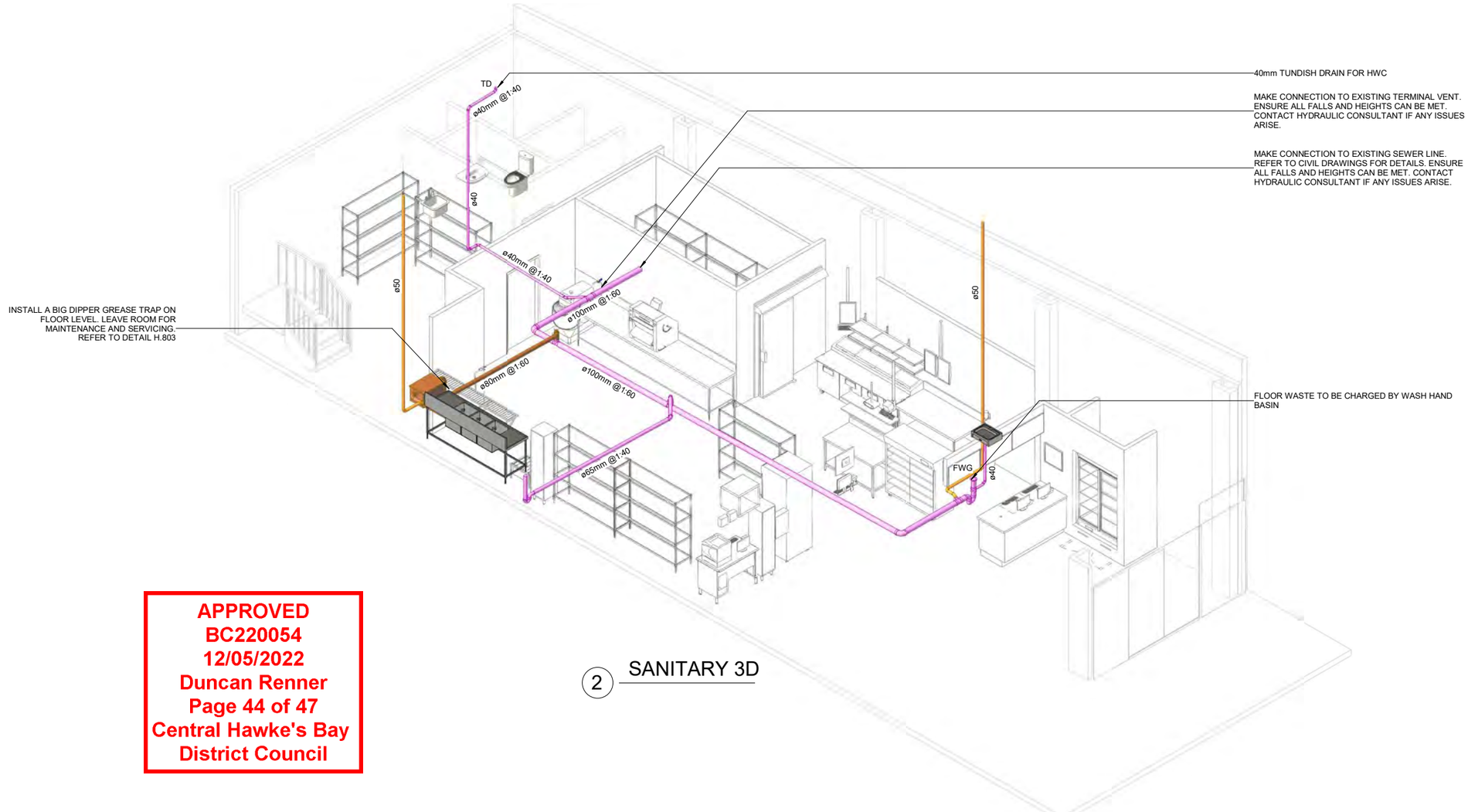
REVISIONS

Rev	Description	Date
A	FOR INFORMATION	21.02.2022



1 SANITARY LAYOUT

1 : 50



2 SANITARY 3D

General note:

Hydraulic services contractor to allow cost of capping all sealing all all redundant existing house drainage and/or trade waste drainage, water services and all other associated items in this tenancy.
Locations of existing services shown on drawings are indicative only. The contractor is to undertake full site inspections to verify the location and depth of existing drainage and water services and that the proposed works are achievable prior to quoting project and/or commencing any works (allow all costs)
Hydraulic services contractor to gain approval from structural engineer prior to saw cutting or core-holing the existing concrete slab (allow all costs).

1. Floor wastes are to be allproof CK sump 200 double strainer type, epoxy filled edge with edge wire 316 grade stainless steel.
2. Chrome plated piping shall be used for the sinks drainage connection. No PVC piping is to be used. A straight handled ball cock valve must be connected to the drains in place of standard sink plugs.
3. The hand basins shall be fitted with a knee operated tap for hands free operation. The tap shall be a "MIRA TF750" or similar
4. Triple bowl sinks are to be a standard of 3000m long x 750mm wide.
5. All sink waste to discharge through a fixed screen.

Notes

1. The whole of the plumbing and drainage design and installation works shall be in accordance with the local authority requriements and AS/NZS3500
2. Prior to commencing any works the contractor is to locate, verify and coordinate all existing services (eg. Structural, mechanical, electrical and fire etc) with the location of all exisiting and proposed hydraulic services, ensuring the invert levels, depth of drainage, fire and water lines are correct and achievable.
3. All vent pipes shall terminate above roof in accordance with AS/NZS3500:2.2:2003 minimum 300mm above roof level.
4. All materials shall be in accordance with the NZ standards and requirements of the local council plumbing inspector/water authority.
5. Plumbing contractor shall alllow all cost necessary for the preperation of as constructed plans (including diagramatics) and for the lodgement to council
6. Allow fire rated pipes where penetrating fire rated structures
7. Pipework shall be acoustically rated/lagged in accordance with AS/NZS 3500

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CLIENT

ARCHITECT

ADDRESS
63 RUATANIWHA STREET
WAIPUKURAU

PROJECT NAME
DOMINOS WAIPUKURAU

DISCIPLINE
HYDRAULIC

GROUND FLOOR SANITARY

FOR INFORMATION

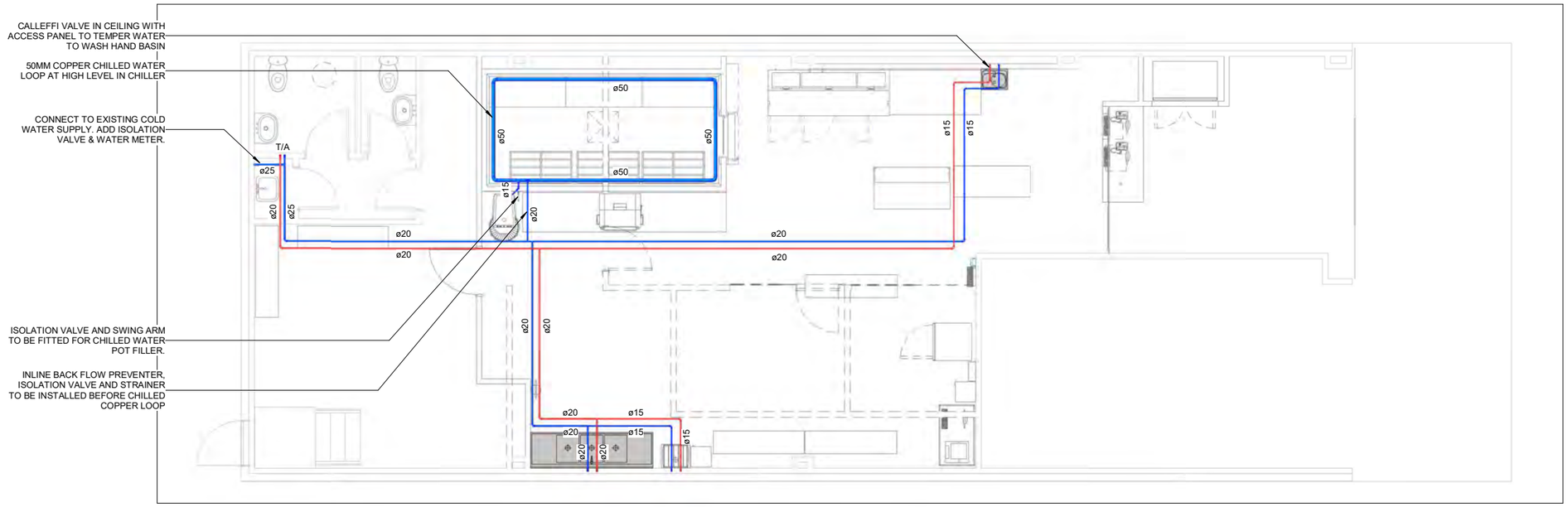
DATE 21.02.2022	SCALE 1 : 50
SHEET NO H.100	HALF SCALE @ A3
REV A	JOB FHD826
DRAWN J.CAIRN	
DESIGN P.SCHILT	
CHECKED P.SCHILT	
FILE	

REVISIONS

Rev	Description	Date
A	FOR INFORMATION	21.02.2022

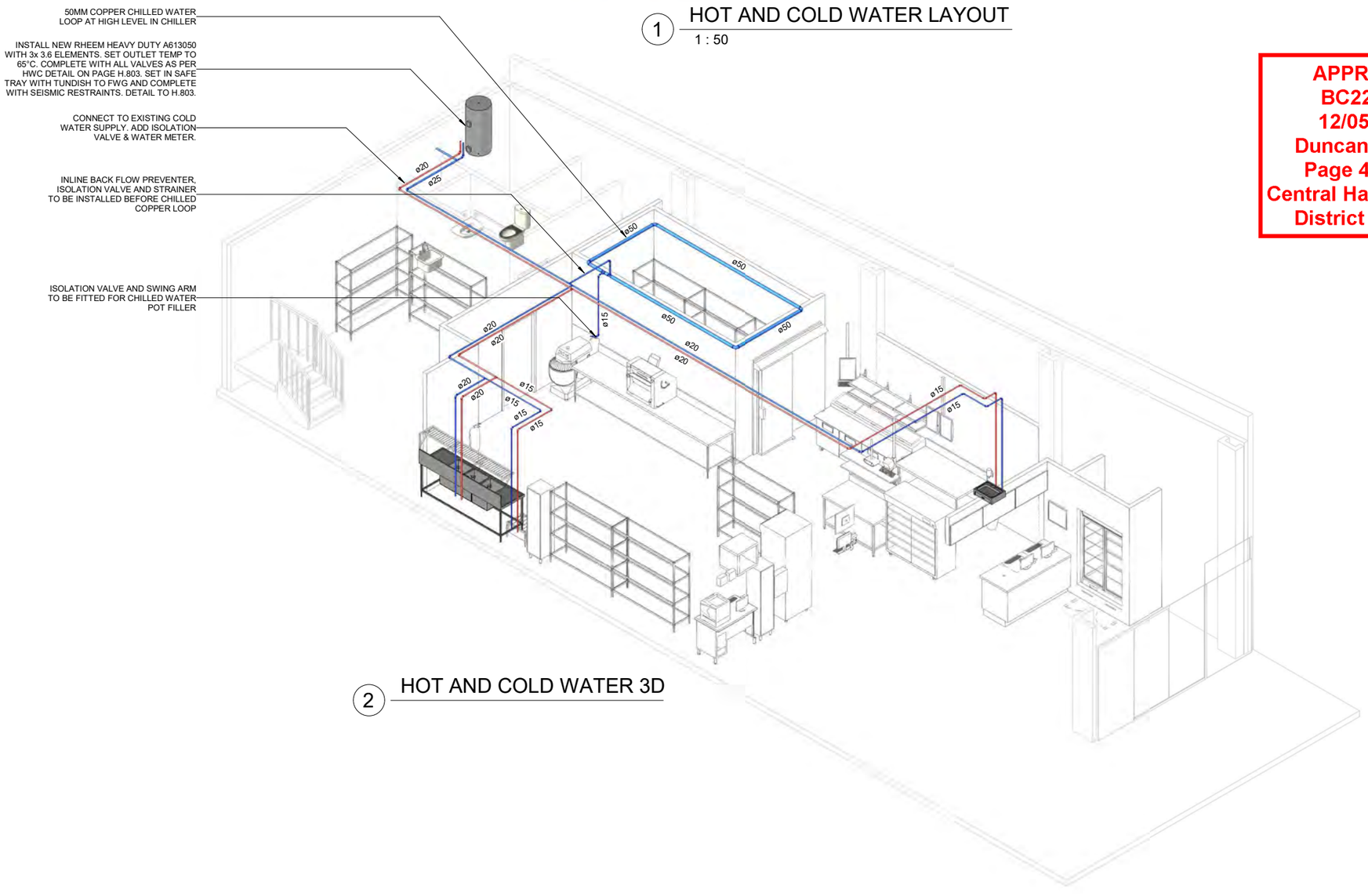
PIPE TYPE KEY

COLD WATER PIPE	
HOT WATER PIPE	
SANITARY PIPE	
VENT PIPE	
GAS PIPE	
STORM WATER PIPE	



1 HOT AND COLD WATER LAYOUT

1 : 50



2 HOT AND COLD WATER 3D

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BC220054
12/05/2022
Duncan Renner
Page 45 of 47
Central Hawke's Bay District Council

General note:

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5. All sink waste to discharge through a fixed screen.

Notes

1. The whole of the plumbing and drainage design and installation works shall be in accordance with the local authority requriements and AS/NZS3500
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3. All vent pipes shall terminate above roof in accordance with AS/NZS3500:2.2:2003 minimum 300mm above roof level.
4. All materials shall be in accordance with the NZ standards and requirements of the local council plumbing inspector/water authority.
5. Plumbing contractor shall allow all cost necessary for the preperation of as constructed plans (including diagramatics) and for the lodgement to council
6. Allow fire rated pipes where penetrating fire rated structures
7. Pipework shall be acoustically rated/lagged in accordance with AS/NZS 3500

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CLIENT

Domino's

ARCHITECT

SACH

ADDRESS

63 RUATANIWHA STREET
WAIPUKURAU

PROJECT NAME

DOMINOS WAIPUKURAU

DISCIPLINE

HYDRAULIC

GROUND FLOOR WATER

FOR INFORMATION

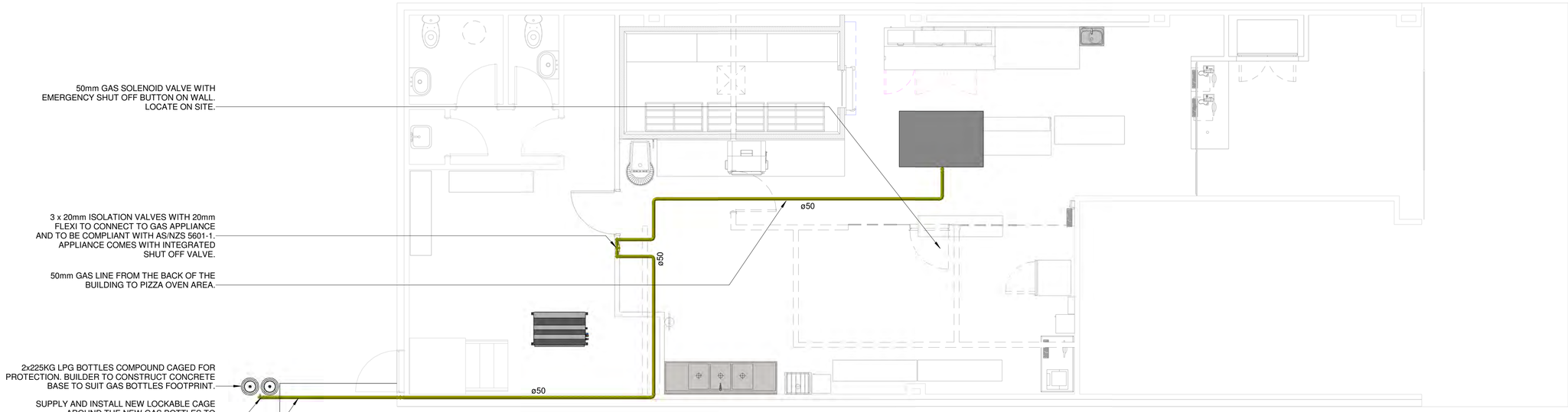
DATE 21.02.2022	SCALE 1 : 50
SHEET NO H.200	HALF SCALE @ A3
REV A	JOB FHD826
DRAWN J.CAIRN	
DESIGN P.SCHILT	
CHECKED P.SCHILT	
FILE	

REVISIONS

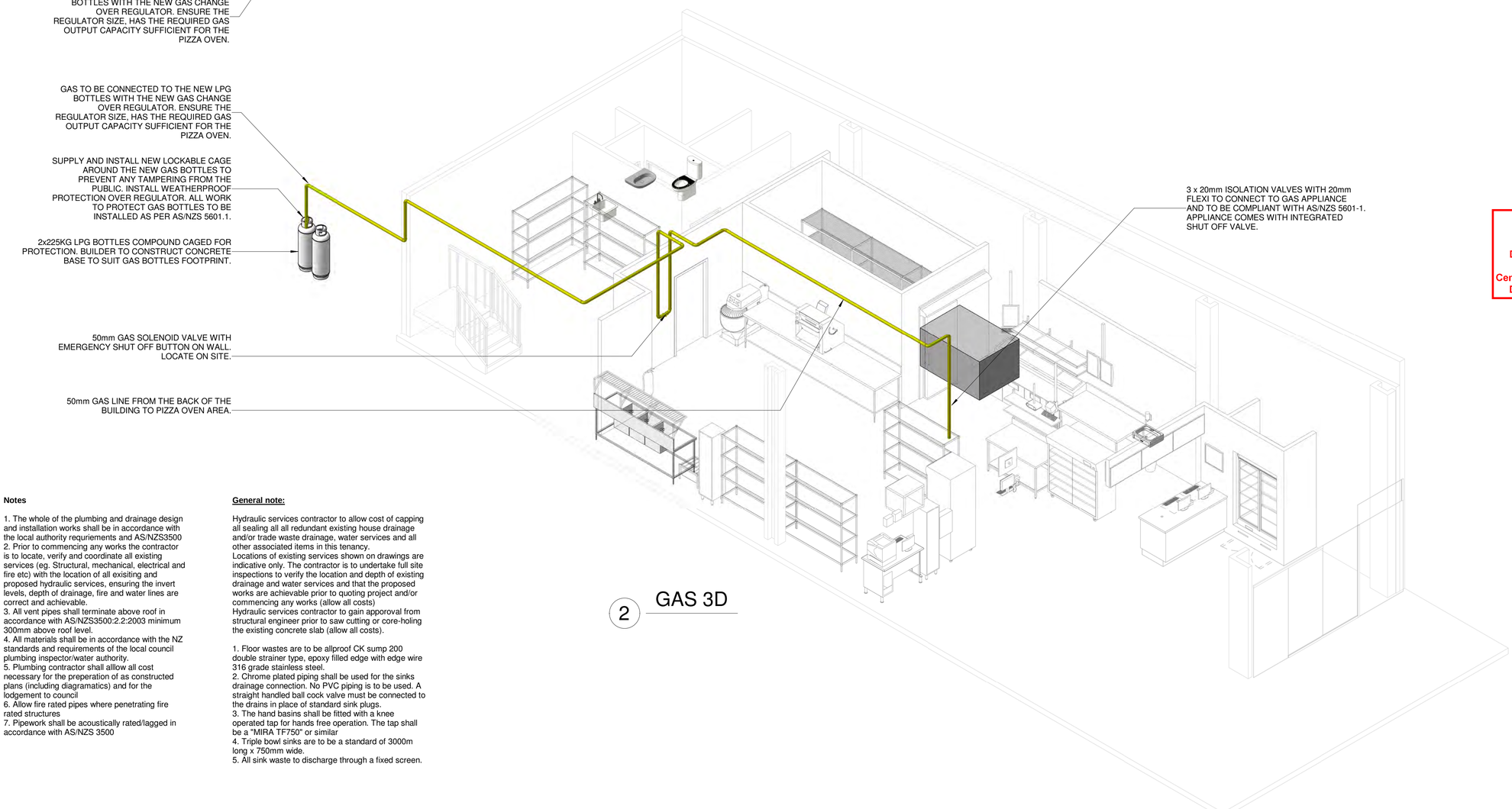
Rev	Description	Date
A	FOR INFORMATION	21.02.2022

PIPE TYPE KEY

COLD WATER PIPE	
HOT WATER PIPE	
SANITARY PIPE	
VENT PIPE	
GAS PIPE	
STORM WATER PIPE	



1 GAS LAYOUT
1 : 50



2 GAS 3D

Notes

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2. Prior to commencing any works the contractor is to locate, verify and coordinate all existing services (eg. Structural, mechanical, electrical and fire etc) with the location of all exisiting and proposed hydraulic services, ensuring the invert levels, depth of drainage, fire and water lines are correct and achievable.
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Duncan Renner
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CLIENT
Domino's

ARCHITECT
SACH

ADDRESS
63 RUATANIWHA STREET
WAIPUKURAU

PROJECT NAME
DOMINOS WAIPUKURAU

DISCIPLINE
HYDRAULIC

GAS LAYOUT

FOR INFORMATION

DATE 21.02.2022	SCALE 1 : 50
SHEET NO H.300	HALF SCALE @ A3
REV A	JOB FHD826
DRAWN J.CAIRN	
DESIGN P.SCHILT	
CHECKED P.SCHILT	
FILE	

REVISIONS

Rev	Description	Date
A	FOR INFORMATION	21.02.2022

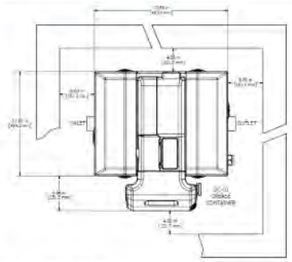
PIPE TYPE KEY

COLD WATER PIPE	
HOT WATER PIPE	
SANITARY PIPE	
VENT PIPE	
GAS PIPE	
STORM WATER PIPE	

BIG DIPPER
A THERMACO® Technology

Big Dipper® IS Point Source Automatic Grease Removal Systems

W-250-IS Specifications



INSTALLATION NOTES

1. READ instruction manual included with system before installing/operating.
2. Install unit allowing for the minimum clearances shown. Make sure there is sufficient space above Internal Strainer access cover to remove the strainer (minimum of 11.4" (290mm)).
3. Make piping connections with rubber "No Hub" connectors.
4. Keep outlet piping as straight as possible. Use only "sweep" connections.
5. Install vent on outlet piping.
6. Fill the tank with water before energizing the power to the motor and heater.
7. Do not install "P" Trap on outlet connection of tank (unit already has internal gas trap).
8. Do not reduce pipe size on outlet piping.
9. Do not pressure test unit.

Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumbing contractor.

JOB SPECIFICATION

Grease and oils separator(s) shall be Thermaco Big Dipper automatic grease/oil recovery system(s) as manufactured by Thermaco, Inc. Asheboro, North Carolina as noted on plans.

AUTOMATIC GREASE REMOVAL DEVICE SPECIFICATIONS

Furnish and install ___ Thermaco Big Dipper Model No. W-250-IS, bright finish type 304 stainless steel exterior, rotationally molded polyethylene interior automatic self-cleaning grease and oil recovery separator(s) for floor mounted or partially recessed installation, rated to ASME A112.14.3 and/or PDI-G 101 standards at 25 gallons per minute (1.6 liters per second) peak flow with 56.4 Pounds (25.6 Kg) of grease capacity and including as an integral part of the unit, 2" (50 mm) inlet/outlet, 1 rotating gear oleophilic/hydrophobic skimming wheel assembly for automatic grease/oil removal, flow control device, self-regulating electric immersion heater with thermostatic control, 1" (25mm) vessel vent, integral gas trap, digital control for programmable operation, field reversible motor assembly and grease/oil sump outlet; quick release stainless steel lid clamps, fully removable polymer lid with magnetic lid tensioners, internal polymer/stainless steel strainer basket for collection of coarse solids, polymer wiper blade unit and a separate gasketted removable grease and oils collection container with carry handle and pouring spout. Electric assembly shall be tested to comply with pertinent sections of the Standards for Safety ANSI/UL 73 and/or ANSI/UL 1004. Electric motor equipped with overload protection. Two (2) no-hub connectors for plumbing connection provided.

ELECTRICAL VARIATIONS

- ☐ W-250-IS: 115V 50/60Hz, 1173 Watts (10.2 Amps)
- ☐ W-250-IS-E: 230V 50/60Hz, 1173 Watts (5.1 Amps)

SUBMITTAL OPTIONS

- ☐ FSI-1 Point Source Fat Strainer (3.4 Gallons of additional solids storage capacity)
- ☐ ESU-1 External Strainer (1.16 Gallons of additional solids storage capacity)
- ☐ HAG-2 Horizontal Air Gap Assembly with 2" connection (comes with 3 flow restrictors for sink drains)
- ☐ HAG-BA-1 Solids Strainer Baskets for use with HAG-2 Assembly (Specify Quantity based on Number of Sinks:____)
- ☐ SFK-1 Support Frame Kit, stainless steel construction

BIG DIPPER
A THERMACO® Technology

Big Dipper® IS Point Source Automatic Grease Removal Systems

W-250-IS Specifications

PRODUCT FEATURES

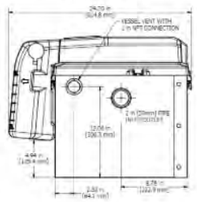
- Fully automatic self cleaning cycle. Actively removes collected grease & oils from tank without any operator assistance. Comes complete with Digital Control user interface and easy-to-carry Grease Collector.
- Constructed of corrosion resistant materials suitable for installation in virtually any location. Attractive sanitary Stainless Steel exterior.
- Integrated Motor/Grease Outlet/Heater/Lid enables a fast, do-it-yourself unit operation reversal.
- Patent Pending Advanced Odor Protection design locks in odors from grease and solids.
- Compact footprint.
- Two (2) No-Hub Connectors provided.

SPECIFICATIONS

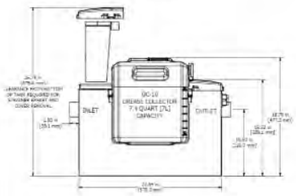
Construction:	Exterior: 304 Stainless Steel, Bright Finish Injection Molded Polymer Interior: Rotationally Molded Polyethylene
Electrical:	115 VAC, 50/60 Hz, 1173 Watts (10.2 Amps)*
Electrical Cord Length:	6 feet
Flow Rating:	25 GPM (1.6 l/s)
No. of Skimming Wheels:	1
Skimming Rate:	9 Pounds (4.08 Kg) Per Hour
Grease Retention Capacity:	56.4 Pounds (25.6 Kg)
Internal Solids Strainer Capacity:	1.85 Gallons (7 Liters)
Inlet/Outlet:	2" (50 mm)
Product Weight:	48 lbs (21.7 Kg)

*For Additional Electrical Configurations, see Electrical Variations section on page 2.

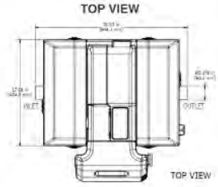
END VIEW



SIDE VIEW



TOP VIEW



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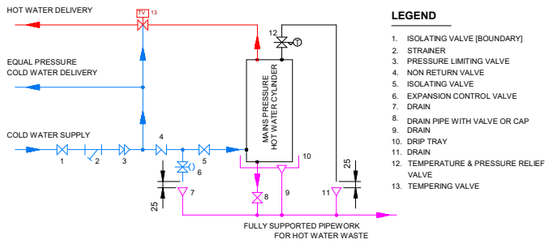
Thermaco, Inc. • PO Box 2548 • Asheboro, NC 27204-2548 • (800) 633-4294 • www.big-dipper.com

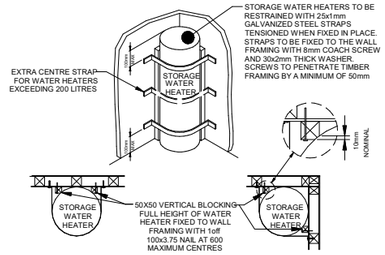


LEGEND

1. ISOLATING VALVE [BOUNDARY]
2. STRAINER
3. PRESSURE LIMITING VALVE
4. NON RETURN VALVE
5. ISOLATING VALVE
6. EXPANSION CONTROL VALVE
7. DRAIN
8. DRAIN PIPE WITH VALVE OR CAP
9. DRAIN
10. DRIP TRAY
11. DRAIN
12. TEMPERATURE & PRESSURE RELIEF VALVE
13. TEMPERING VALVE

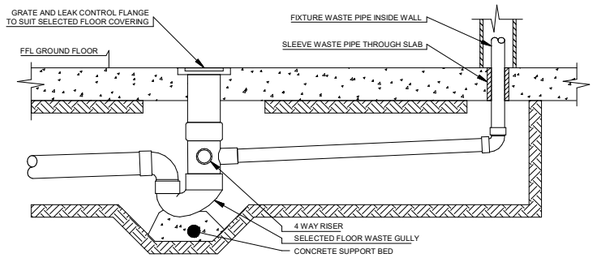
TYPICAL MAINS HOT WATER CYLINDER DETAIL

NOT TO SCALE



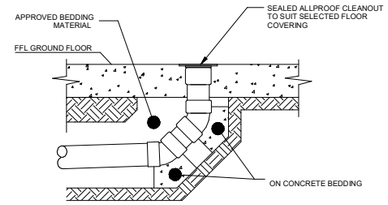
TYPICAL STORAGE WATER HEATER SEISMIC RESTRAINT DETAIL

NOT TO SCALE



TYPICAL FLOOR WASTE GULLY TRAP - SUB FLOOR DETAIL

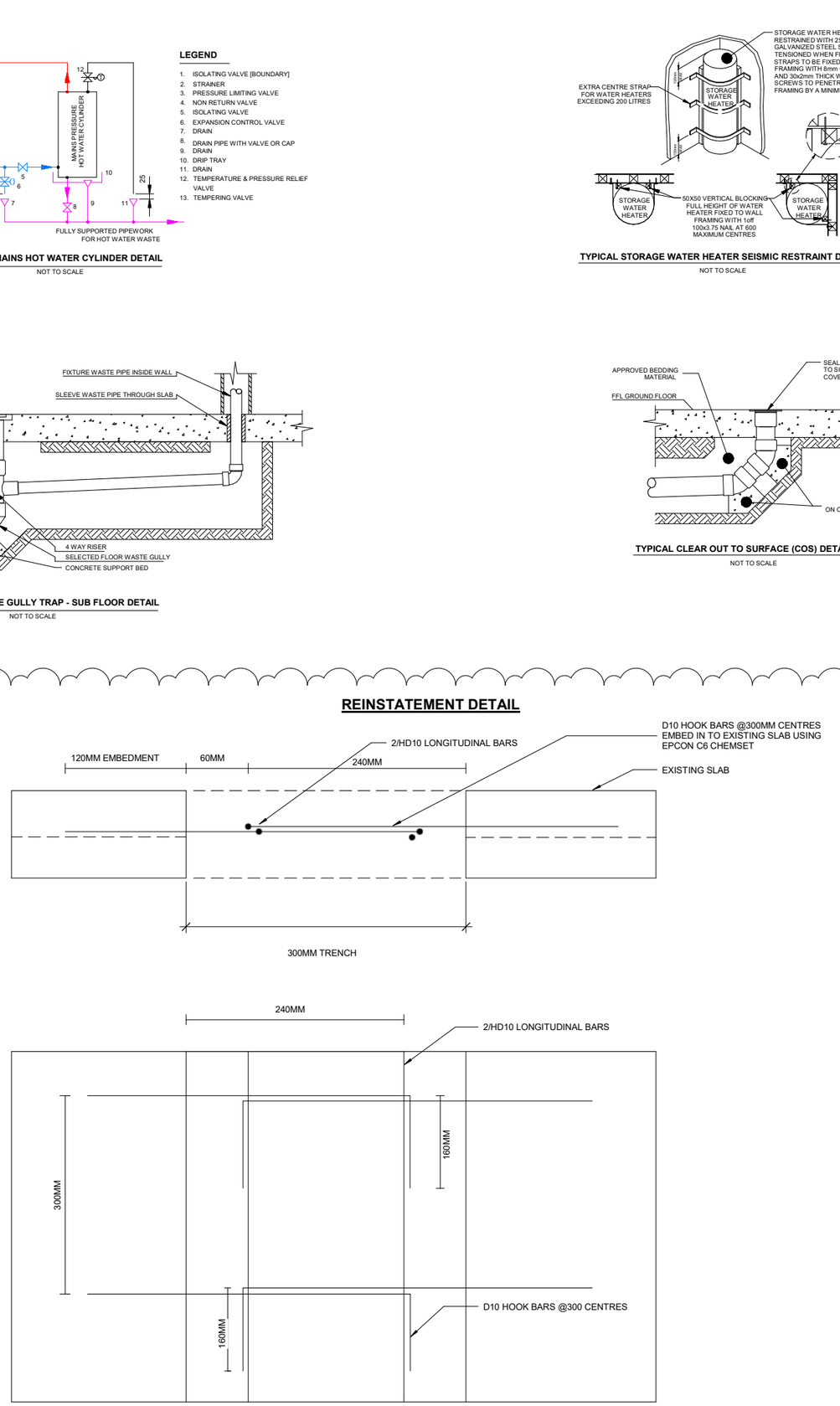
NOT TO SCALE



TYPICAL CLEAR OUT TO SURFACE (COS) DETAIL

NOT TO SCALE

REINSTATEMENT DETAIL



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mark@fluidec.co.nz

CLIENT: Domino's

ARCHITECT: SACH

ADDRESS: 63 RUATANIWHA STREET WAIPUKURAU

PROJECT NAME: DOMINOS WAIPUKURAU

DISCIPLINE: HYDRAULIC

GENERAL DETAILS

FOR INFORMATION

DATE 28.03.2022	SCALE As indicated
SHEET NO H.803	HALF SCALE @ A3
REV B	JOB FHD826
DRAWN	J.CAIRN
DESIGN	P.SCHILT
CHECKED	P.SCHILT
FILE	

REVISIONS

Rev	Description	Date
A	FOR INFORMATION	21.02.2022
B	REVISED PLANS	28.03.2022

APPROVED
BC220054
12/05/2022
Duncan Renner
Page 47 of 47
Central Hawke's Bay District Council

DOMINO'S - WAIPUKURAU

63 Ruataniwha Street. Waipukurau 4200, New Zealand

PROPOSED:

EXISTING:

APPROVED
BC220054
12/05/2022
Duncan Renner
Page 1 of 9
Central Hawke's Bay
District Council

IMPORTANT NOTES

SIGN CONTRACTORS TO INCLUDE WARRANTY AS FOLLOWS.
Materials & workmanship including LED illumination – 1 year from practical completion.

ELECTRICAL NOTE
Sign contractors to allow to connect new signs to existing power, and are required to check that there is power to the sign before leaving site. If no power - connect extension lead to sign and take photos showing signage working on external power. Allow for appropriately qualified tradesman to complete this work.

EXISTING ILLUMINATED SIGNAGE
Remove any fluorescent tubes, starters & ballast. Electrics to updated to LEDs including transformer. Any other electrics that require replacement to get sign working, to be advised and cost variation with scope submitted.

MEASUREMENTS
Sizes are indicative only and subject to site survey.

STRUCTURAL
It is the sole responsibility of the contractor to provide engineers design & certification of any or all signage, where deemed necessary.

OH&S
Sign contractors to allow for risk assessment and Work Method Statement in their pricing.

OLD SIGNS
Sign contractor to allow for removal of all old signs and disposal. Also to include electrical disconnection where required.

PATCH and PAINT
Signage contractor to include patch and paint of all areas where old signage is removed that new signage does not cover in full.

LETTERS & ICON
Signage contractor to include rebated edge to 10mm thick foamex backing material to seal fabricated letters & Icon to prevent light leaks, swarf & contamination.

WINDOW GRAPHICS
Window graphics on ALL new stores MUST be internally applied where shown. Refurb stores to be checked if access is possible with shopfitter. Signage contractor to allow for a special trip to fit this graphic early in the project (discuss timing with shopfitter) in their costs.

EXAMPLE - NOT TO SCALE

PRINT & SIGN TECH

JOB # 5530

VERSION 01

FOLDER:	G:\Jobs 2022\Domino's - Montage - Waipukarau NZ - 5530\04 Montages Only						
FILE NAME:	5530_Domino's_Waipukarau_Signage_Montage					NOT TO SCALE	Page 1 of 9
DRAWN BY:	CR	DATE:	22/02/2022	CLIENT:	DOMINO'S WAIPUKURAU 63 Ruataniwha Street. Waipukurau 4200, New Zealand		

PLEASE PROOF READ

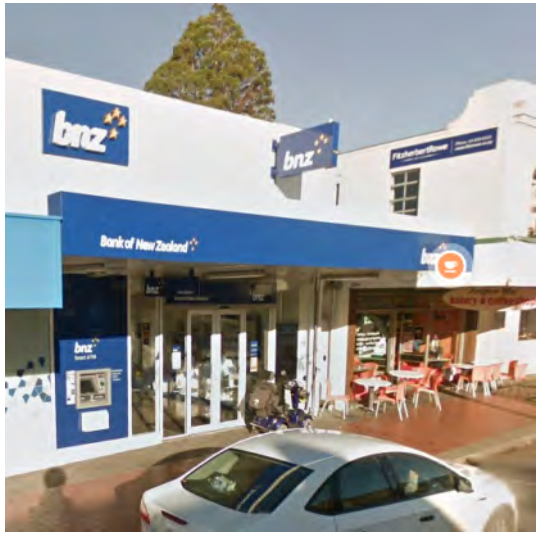
VERY IMPORTANT: Please check all details carefully for spelling, contact details, accuracy colours, etc. Print & Sign Tech will not be liable for any errors or inaccuracies subsequently discovered in the artwork after production has started. Care has been taken to follow your instructions, however final responsibility for the accuracy of artwork lies with you. Production of your order will not commence until all artwork details are approved.

DOMINO'S - WAIPUKURAU

63 Ruataniwha Street. Waipukurau 4200, New Zealand

PROPOSED:

EXISTING:



APPROVED
BC220054
12/05/2022
Duncan Renner
Page 2 of 9
Central Hawke's Bay District Council
NOT TO SCALE

PRINT & SIGN TECH

JOB # 5530	FOLDER:	G:\Jobs 2022\Domino's - Montage - Waipukarau NZ - 5530\04 Montages Only				
	FILE NAME:	5530_Domino's_Waipukarau_Signage_Montage			NOT TO SCALE	Page 2 of 9
VERSION 01	DRAWN BY:	CR	DATE: 22/02/2022	CLIENT:	DOMINO'S WAIPUKURAU 63 Ruataniwha Street. Waipukurau 4200, New Zealand	

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DOMINO'S - WAIPUKURAU

63 Ruataniwha Street. Waipukurau 4200, New Zealand

SIGN 1: ILLUMINATED AWNING SIGNAGE.
OVERALL SIZE: 4550mm (w) X 600mm (h) TBC. Full site survey prior to manufacture.
Tile size approx: 440mm (h). 'D' Letter approx 245mm (h). TBC. Full site survey prior to manufacture.
DETAILS: Manufacture new 3mm black intracut ACM sign face with fold back returns and fit push through 20mm opal acrylic raised text and logo. ACM should be factory finish matte black. Front apply translucent SAV to logo. Manufacture backing tray to match and install LED lighting inside it to illuminate sign as required. Fit tray to hamper area and fit ACM sign over the tray and fix it on the returns only. Using screw fixings painted black. No visible fixings through face.
REFER SIGN MANUAL FOR FULL SPECIFICATION.
- Connect sign to power cabling provided to the sign location by others

SIGN 2: ILLUMINATED HAMPER SIGNAGE.
OVERALL SIZE: 3150mm (w) X 500mm (h) TBC. Full site survey prior to manufacture.
Tile size approx: 365mm (h). 'D' Letter approx 200mm (h). TBC. Full site survey prior to manufacture.
DETAILS: Manufacture new 3mm black intracut ACM sign face with fold back returns and fit push through 20mm opal acrylic raised text and logo. ACM should be factory finish matte black. Front apply translucent SAV to logo. Manufacture backing tray to match and install LED lighting inside it to illuminate sign as required. Fit tray to hamper area and fit ACM sign over the tray and fix it on the returns only. Using screw fixings painted black. No visible fixings through face.
REFER SIGN MANUAL FOR FULL SPECIFICATION.
- Connect sign to power cabling provided to the sign location by others

NOTE: Dimensions provided in this artwork are estimate based only. Subject to full site survey prior to manufacture.

APPROVED
BC220054
12/05/2022
Duncan Renner
Page 3 of 9
Central Hawke's Bay
District Council

PRINT & SIGN TECH

JOB # 5530

VERSION 01

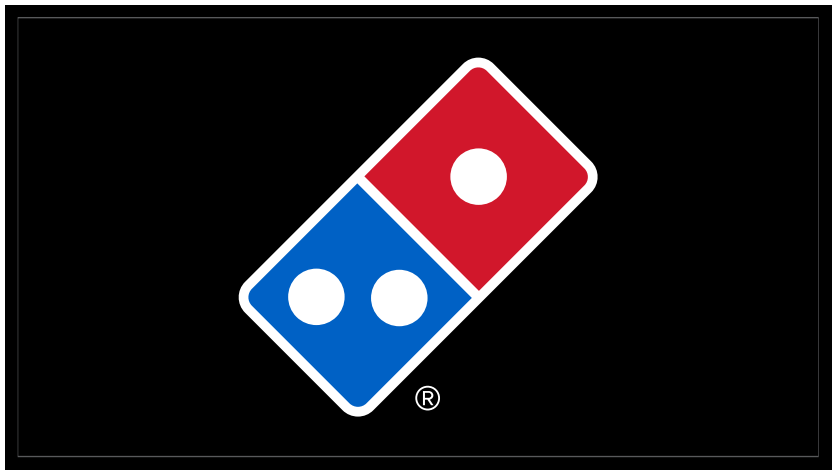
FOLDER:	G:\Jobs 2022\Domino's - Montage - Waipukarau NZ - 5530\04 Montages Only						
FILE NAME:	5530_Domino's_Waipukarau_Signage_Montage				NOT TO SCALE	Page 3 of 9	
DRAWN BY:	CR	DATE:	22/02/2022	CLIENT:	DOMINO'S WAIPUKURAU 63 Ruataniwha Street. Waipukurau 4200, New Zealand		

PLEASE PROOF READ

VERY IMPORTANT: Please check all details carefully for spelling, contact details, accuracy colours, etc. Print & Sign Tech will not be liable for any errors or inaccuracies subsequently discovered in the artwork after production has started. Care has been taken to follow your instructions, however final responsibility for the accuracy of artwork lies with you. Production of your order will not commence until all artwork details are approved.

DOMINO'S - WAIPUKURAU

63 Ruataniwha Street. Waipukurau 4200, New Zealand



SIGN 3: ABOVE AWNING SIGNBOX (DOUBLE SIDED).
OVERALL SIZE: 1600mm (w) X 900mm (h) TBC. Full site survey prior manufacture.
DETAILS: Remove and dispose of existing sign face. Paint signcase exterior matte black. Fit 4.5mm opal polycarbonate sign face (Single Sheet) with front applied exterior grade matte black opaque SAV and translucent SAV logo.
REFER SIGN MANUAL FOR FULL SPECIFICATION.
- Connect sign to power cabling provided to the sign location by others.

SIGN 4: UNDER AWNING SIGNBOX (DOUBLE SIDED).
OVERALL SIZE: 1600mm (w) X 400mm (h) TBC. Full site survey prior manufacture.
DETAILS: Manufacture new illuminated 150mm deep aluminium extrusion signcase. Internally illuminated with Leds
Paint signcase exterior matte black. Fit 4.5mm opal polycarbonate sign face (Single Sheet) with front applied exterior grade matte black opaque SAV and translucent SAV logo.
Manufacture aluminium or steel droppers to sign and paint matte black.
Minimum clearance of 2400mm to bottom of signbox.
REFER SIGN MANUAL FOR FULL SPECIFICATION.
- Connect sign to power cabling provided to the sign location by others.

SIGN 5: CUSTOMER ENTRANCE DECAL.
SIZE: 255mm wide x 370mm high.
DETAILS: Reverse applied vinyl logo decal with brushed aluminium SAV letters to inside of glass door.
Use judgement for final position.
REFER SIGN MANUAL FOR FULL SPECIFICATION.

SIGN 6: TRADING HOURS.
SIZE: 300mm wide x 250mm high.
DETAILS: Reverse applied white SAV letters to inside of glass door.
Use judgement for final position.

PRINT & SIGN TECH

JOB # 5530

VERSION 01

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FILE NAME:	5530_Domino's_Waipukarau_Signage_Montage				NOT TO SCALE	Page 4 of 9
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DOMINO'S - WAIPUKURAU

63 Ruataniwha Street. Waipukurau 4200, New Zealand

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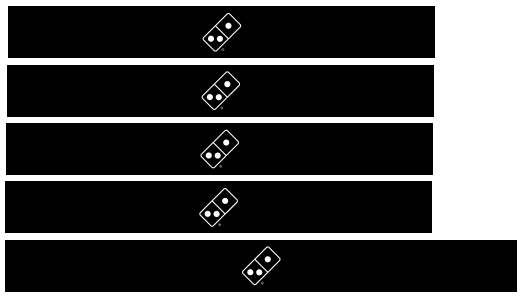
Central Hawke's Bay District Council

SUBJECT TO SPACE & SLIDING DOOR

SIGN 7: COOKING SIGN
SIZE: 900mm wide x 300mm high
DETAILS: 4mm Black ACM. Intracut with Fabricated acrylic enclosure with 12mm black foamex face with cut out recess for exposed red LED strip lighting.
REFER TO SIGN MANUAL FOR SPECIFICATIONS.
Do not quote - Stock item by client

TRADING NAME - DOMINOS TO ADVISE
ABN - TO BE ADVISED
ACN - TO BE ADVISED

SIGN 8: LICENSEE DETAIL
SIZE: 420mm wide x 113mm high. Numbers 23mm high
DETAILS: Reverse applied white SAV letters to inside of glass door. Use judgement for final position.
REFER SIGN MANUAL FOR FULL SPECIFICATION.



SIGN 9: WINDOW SAFETY BAND. (LEFT TO RIGHT OF SHOPFRONT)
SIZE: 1 @ 1200mm wide x 90mm high. TBC.
SIZE: 2 @ 1500mm wide x 90mm high. TBC.
SIZE: 3 @ 1800mm wide x 90mm high. TBC.
All sizes subject to full site survey prior manufacture.
DETAILS: Printed black on clear SAV. Backed with white SAV. Reverse applied to inside of glazing, logos at a height of 950mm from ground levelto centre of band.
REFER SIGN MANUAL FOR FULL SPECIFICATION.

SIGN 10: BLACK WINDOW FILM
PANEL SIZE: 1 @ 380mm (w) X 2850mm (h) TBC.
Full site survey prior to manufacture.
DETAILS: Cut black SAV and fit to front side of glazing. To hide the wall behind.
REFER SIGN MANUAL FOR FULL SPECIFICATION.

SIGN 11: STAFF ONLY SIGN
Size: 300mm W x 80mm H
Detail: Cut 40mm high (Caps) silver SAV and fit to black acrylic with flame polished edges and affix double-sided tape to the rear. Fit sign centre of door at 1500mm from ground level.

PRINT & SIGN TECH

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63 Ruataniwha Street. Waipukurau 4200, New Zealand

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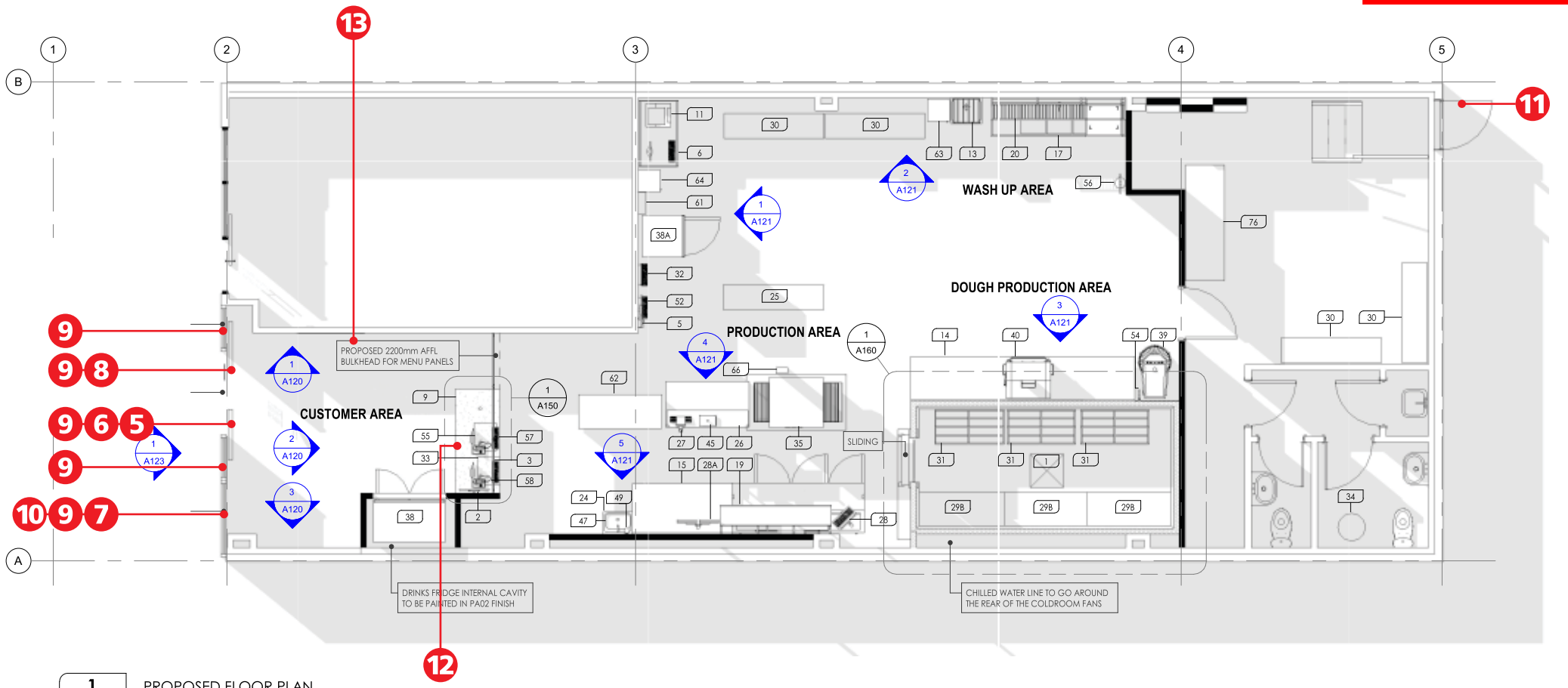
Central Hawke's Bay District Council



1 PROPOSED FLOOR PLAN
A105

JOB # 5530	FOLDER:	G:\Jobs 2022\Domino's - Montage - Waipukarau NZ - 5530\04 Montages Only			
VERSION 01	FILE NAME:	5530_Domino's_Waipukarau_Signage_Montage	NOT TO SCALE	Page 6 of 9	
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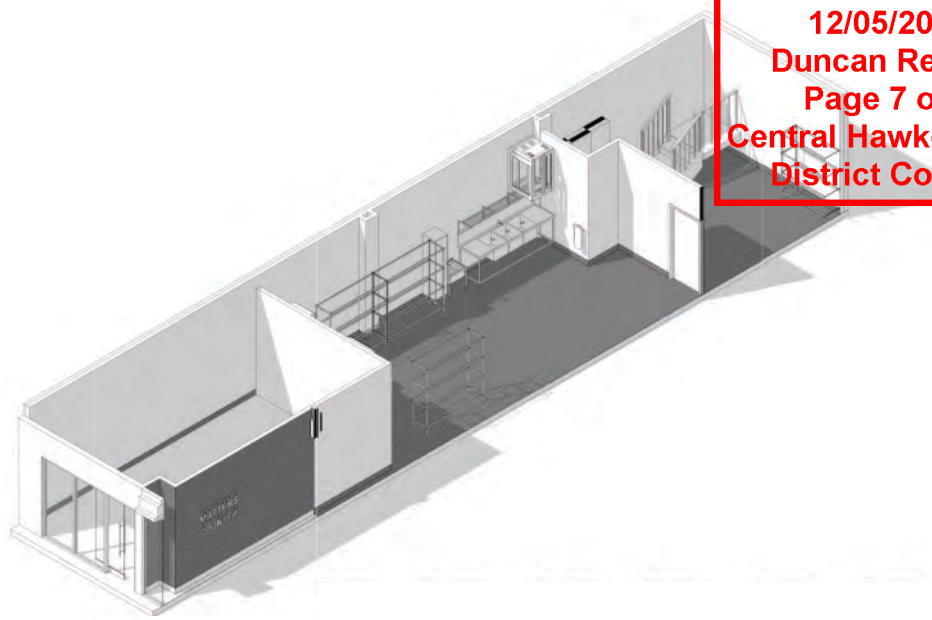

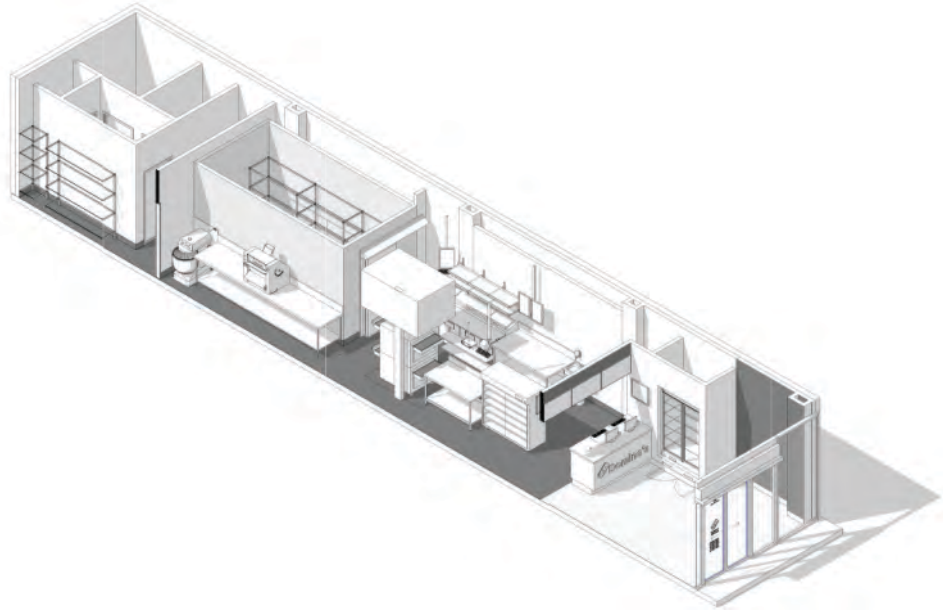

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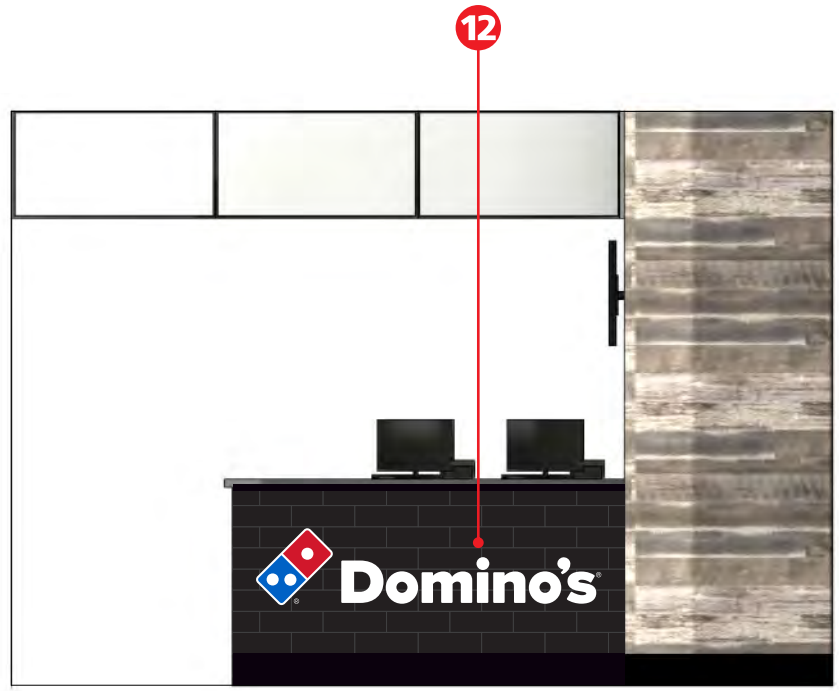
Line up the top of the straights on lower case "m" & "n" in the centre of the counter

SIGN 12: COUNTER LOGO (NON ILLUMINATED).
SIZE: 1635mm W x 363mm H - "D" is 200mm high
DETAIL: Router cut 6mm thick white acrylic with front applied opaque SAV graphics to face of logo. ® is 3mm black acrylic with front applied white SAV to face. Fixed flat to front of counter with double sided tape and construction adhesive.



2	ELEVATION B
A105 A120	

PRINT & SIGN TECH

JOB # 5530

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DOMINO'S - WAIPUKURAU
63 Ruataniwha Street. Waipukurau 4200, New Zealand

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SLOW WHERE IT
MATTERS
FAST WHERE IT
COUNTS

SIGN 13: "WHERE IT MATTERS" PAINTED WALL GRAPHICS
OVERALL SIZE: SNO4 1500mm (w) X 999mm (h) TBC.
Full site survey prior manufacture.
DETAILS: Stencil image onto brick background using Dulux - Domino SG6G8 (grey) paint. Dominos logo to match Pantone colours, Blue 2935C, Red 186c. Ensure no signage to start above 2100mm (h). Preference is to be centred on wall, or start at 2100mm (h). Only start at 2100mm (h) at stores that do not have 3000mm (h) ceiling.

1	ELEVATION A
A105 A120	

PRINT & SIGN TECH

JOB # 5530
VERSION 01

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CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street,
PO Box 127, Waipawa 4240
New Zealand

Phone: 06 857 8060
Fax: 06 857 7179

info@chbdc.govt.nz
www.chbdc.govt.nz

Certificate For Public Use

Section 363A, Building Act 2004

Premises

Description for which certificate is issued:	Footpath area opposite Domino's Pizza 63 Ruataniwha Street Waipukurau

Building Work Affecting the Premises

Building consent number	220054
Issued by:	Central Hawke's Bay District Council
Valid until:	13 November 2022

The Applicant (person who owns, occupies or controls premises)

Name:	Chris Davies	Description:	Occupier
Contact person:	Chris Davies	Phone No (daytime):	021753563
Mailing address:	PO Box 59, Waipukurau	Phone No (after hours):	021753563
		Email Address:	chris.davis@domino's.co.nz

Public Use of the Premises

The territorial authority named below, being satisfied on reasonable grounds, in relation to the building work described above, that members of the public can safely use the premises described above, issued under section 363A(2) of the Building Act 2004 this Certificate For Public Use in respect of the premises.

This certificate is subject to the following conditions:

- **The safety measure includes the placing of traffic cones, the use of appropriate signage and the inclusion of supervision by Craig Sergeant or his nominated representative implementing the "Code of Practice for Traffic Management Plan" is to be used at all times when the footpath area has building work being undertaken.**

Nothing in this certificate limits the duty of the owner to apply for a Code Compliance Certificate, nor does it relieve any person from compliance with any other legislative requirement.

Attachments

The following documents are attached to this certificate:

- Plans and diagrams showing the premises in respect of which the certificate is issued

Duncan Renner
Senior Building Consent Officer

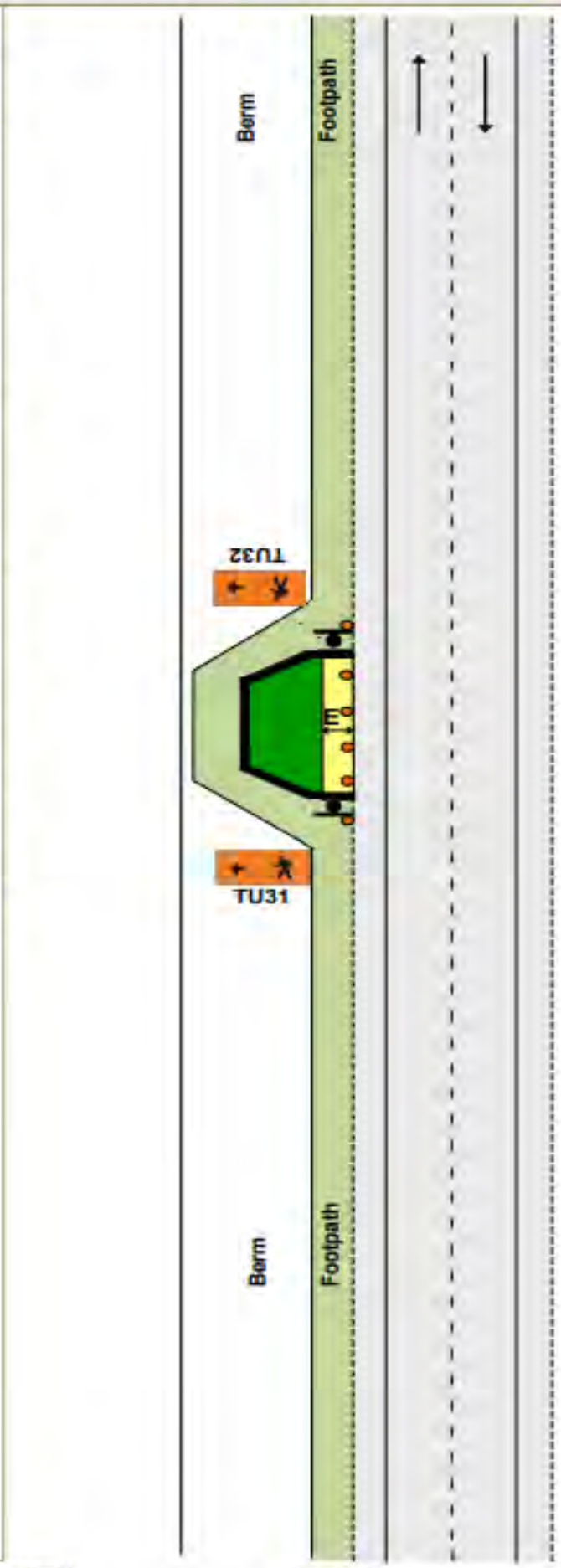
On behalf of Central Hawke's Bay District Council
Date issued: 13th May 2022

FOOTPATH
Footpath diverted onto berm behind working space
First preference

F2.1
Level 1

Notes

1. Minimum pedestrian footpath widths:
   - Residential/Rural/Suburban Centre - 1.2m
   - CBD - 2m
2. Where the length of the temporary footpath exceeds 20m, these widths may have to be increased so footpath users do not have to wait to pass
3. Temporary footpath surfaces must be suitable for footpath users
4. Use safety fence to enclose the working space, or at **attended** worksites, cones connected with cone bars can be used to enclose the working space but only for a short period of time
   Note: Cone bars are not recommended where heavy equipment (eg a digger) is being used. A safety fence is preferred in these cases
5. This TMD must be used in conjunction with appropriate TTM for any work carried out on the shoulder or in the live lane

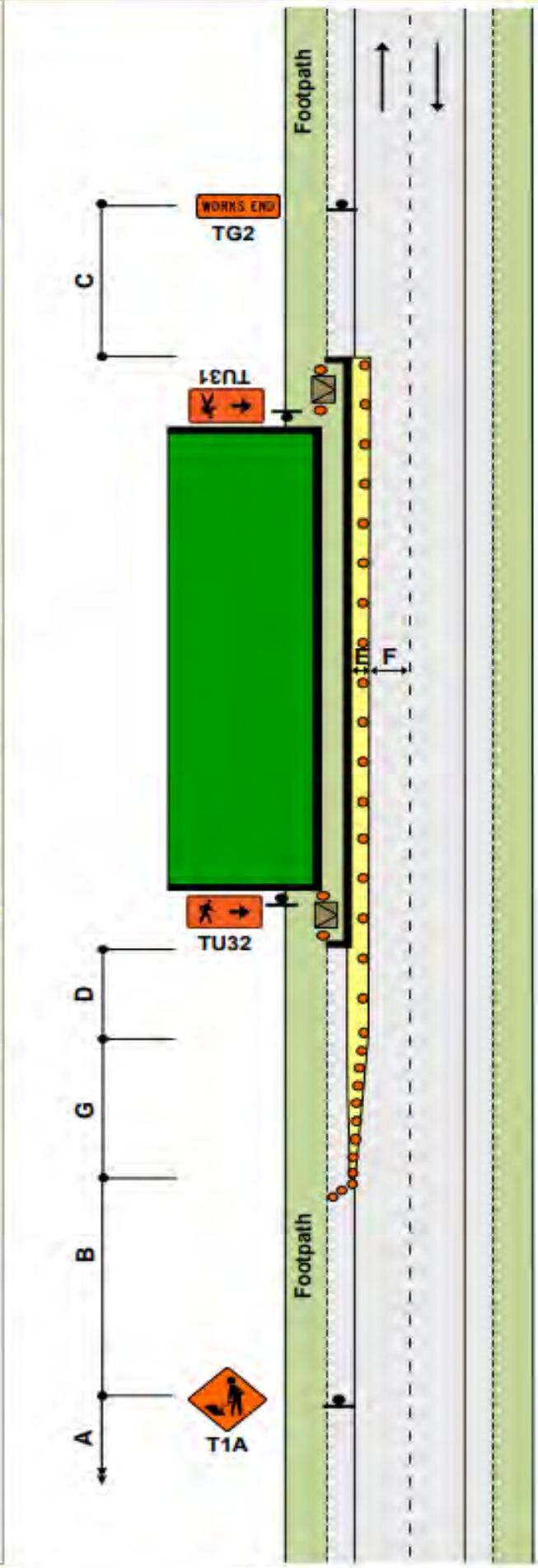


FOOTPATH
Footpath diverted onto carriageway
Third preference

F2.3
Level 1

Notes

1. Minimum pedestrian footpath widths:
   - Residential/Rural/Suburban Centre - 1.2m
   - CBD - 2m
2. Where the length of the temporary footpath exceeds 20m, these widths may have to be increased so footpath users do not have to wait to pass
3. Use safety fence to enclose the working space, or at **attended** worksites, cones connected with cone bars can be used to enclose the working space but only for a short period of time
   Note: Cone bars are not recommended where heavy equipment (eg a digger) is being used. A safety fence is preferred in these cases
4. Use barrier or safety fence to delineate the traffic side of the footpath, or at **attended** worksites cones connected with cone bars can be used to delineate the traffic side of the footpath for a short period of time (not for use on state highways)
5. There must be a lateral safety zone between the traffic side of the footpath and the live lane:
   - **0.5m** for barrier
   - **1m** for safety fence or cone bars
6. Use kerb ramps to assist mobility vehicles, pushchairs, etc
7. At night-time, corners of safety fence may be illuminated with flashing amber warning lights
8. This TMD must be used in conjunction with appropriate TTM for any work carried out on the shoulder or in the live lane



SHOULDER AND ROADSIDE ACTIVITIES
Shoulder closure

F2.7
Level 1

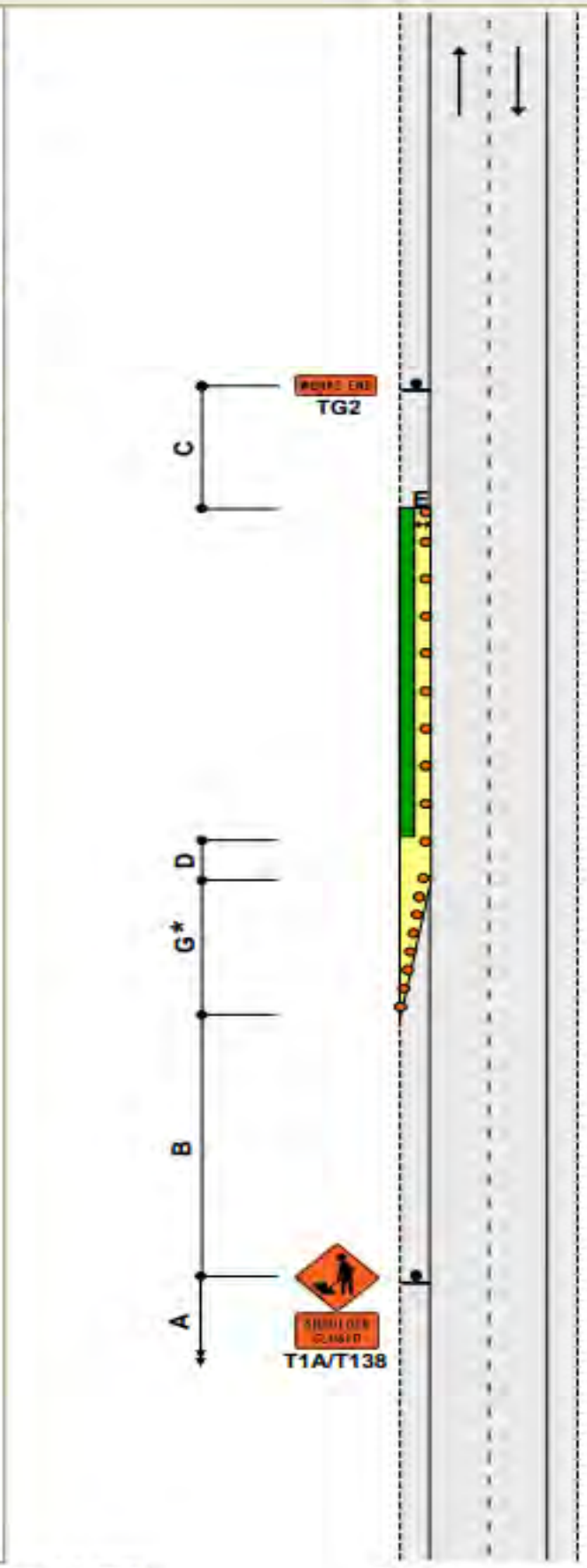
Notes

1. A 10m taper is allowed where shoulder width is less than 2.5m
2. *For shoulders exceeding 2.5m width, apply the following calculation; calculation of taper length for lateral shift of less than 3.5m is:

$$\frac{W \times G}{3.5}$$

W = Width of shoulder

G = Taper length in metres from the level 1 layout distance table



Code Compliance Certificate BC210123

Section 95, Building Act 2004

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street,
PO Box 127, Waipawa 4240
New Zealand

Phone: 06 857 8060
Fax: 06 857 7179

info@chbdc.govt.nz
www.chbdc.govt.nz

The Building	
Street address of building:	63 Ruataniwha Street, Waipukurau
Legal description of land where building is located:	Lot 2 DP 24265
Building name:	BNZ Bank
Location of building within site/block number:	N/A
Level/unit number	N/A
Valuation number:	1088011600
Description of work:	Enclosed ATM lobby in existing bank
Current, lawfully established use:	Commercial
Year first constructed:	2021

The Owner				
Name of owner:	BNZ Branch Properties Limited			
Contact person:	Anthony Parkin			
Mailing address:	Level 9,80 Queen Street, Auckland			
Phone numbers:	Landline: N/A		Mobile:	021 931 538
	Daytime: N/A		After hours:	N/A
Facsimile number	N/A		Email address:	anthony_parkin@bnz.co.nz
Website:	N/A			
First point of contact for communications with the council/building consent authority:	Owner as above			

Building Work	
Building Consent Number: 210123	**Issued by:** Central Hawke's Bay District Council

Code Compliance
The Building Consent Authority named below is satisfied, on reasonable grounds, that— • The building work complies with the building consent. • The specified systems in the building are capable of performing to the performance standards set out in the building consent.

Attachment

Compliance Schedule

Rachael Stanbra
Consents Support Officer

On behalf of Central Hawke's Bay District Council
Date: 6 August 2021

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**HBV2/379**
Land Registration District	**Hawkes Bay**
Date Issued	27 January 1995

Prior References
HB204/82

Estate	Fee Simple
Area	339 square metres more or less
Legal Description	Lot 2 Deposited Plan 24265

Registered Owners
BNZ Branch Properties Limited

Interests

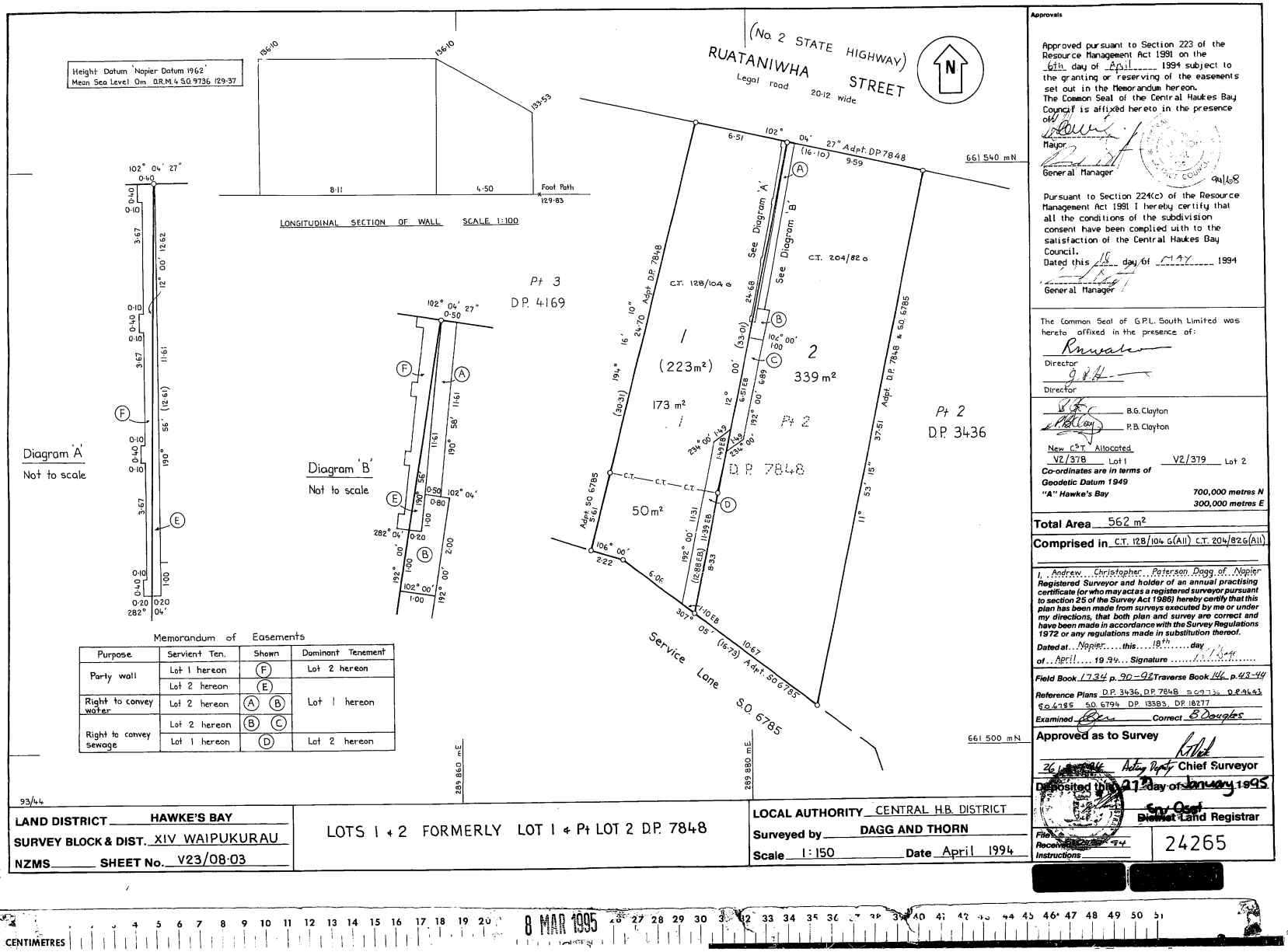
Appurtenant hereto is a right of way created by Transfer 68999

Appurtenant hereto is a right to convey sewage and a party wall right specified in Easement Certificate 619409.6 - 27.1.1995 at 1.32 pm

Subject to a right to convey water over parts marked A & B and a right to convey sewage over parts marked B & C and to a party wall right over part marked E all on DP 24265 specified in Easement Certificate 619409.6 - 27.1.1995 at 1.32 pm

The easements specified in Easement Certificate 619409.6 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to convey electricity telecommunications and electronic data, over part marked A on DP 499802 in favour of Centralines Limited created by Easement Instrument 10599439.1 - 11.11.2016 at 10:00 am



Memorandum of Easements

Purpose	Servient Ten.	Shown	Dominant Tenement
Party wall	Lot 1 hereon	(F)	Lot 2 hereon
	Lot 2 hereon	(E)	Lot 1 hereon
Right to convey water	Lot 2 hereon	(A) (B)	
Right to convey sewage	Lot 2 hereon	(B) (C)	
	Lot 1 hereon	(D)	Lot 2 hereon

Approvals

Approved pursuant to Section 223 of the Resource Management Act 1991 on the 6th day of April 1994 subject to the granting or reserving of the easements set out in the Memorandum hereon.
The Common Seal of the Central Haukes Bay Council is affixed hereto in the presence of:

Mayor

General Manager

94/68

Pursuant to Section 224(c) of the Resource Management Act 1991 I hereby certify that all the conditions of the subdivision consent have been complied with to the satisfaction of the Central Haukes Bay Council.
Dated this 16 day of MAY 1994

General Manager

The Common Seal of G.P.L. South Limited was hereto affixed in the presence of:

Director

Director

B.G. Clayton

P.B. Clayton

New C°T. Allocated
V2/378 Lot 1 V2/379 Lot 2

Co-ordinates are in terms of Geodetic Datum 1949 "A" Hawke's Bay 700,000 metres N, 300,000 metres E

Total Area 562 m²

Comprised in C.T. 128/104 G(All) C.T. 204/82 G(All)

I, Andrew Christopher Paterson Dagg of Napier Registered Surveyor and holder of an annual practising certificate (or who may act as a registered surveyor pursuant to section 25 of the Survey Act 1986) hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972 or any regulations made in substitution thereof.

Dated at Napier *this* 18th *day of* April *19* 94 *Signature*

Field Book 1734 p. 90-92 *Traverse Book* 146 p. 43-44

Reference Plans D.P. 3436, D.P. 7848 S.O. 9736, D.P. 8463, S.O. 6785 S.O. 6794 D.P. 13383, D.P. 18277

Examined Correct B Douglas

Approved as to Survey

Acting Deputy Chief Surveyor

Deposited this 27th day of January 1995

District Land Registrar

File Ref. 74 *Received* *Instructions*

24265

93/44

LAND DISTRICT HAWKE'S BAY
SURVEY BLOCK & DIST. XIV WAIPUKURAU
NZMS **SHEET No.** V23/08·03

LOTS 1 & 2 FORMERLY LOT 1 & Pt LOT 2 D.P. 7848

LOCAL AUTHORITY CENTRAL H.B. DISTRICT
Surveyed by DAGG AND THORN
Scale 1:150 **Date** April 1994

8 MAR 1995

CENTIMETRES


3010901
DP 18277
Pt Lot 1 DP 2107
Pt Lot 1 DP 4151
Lot 1 DP 4169
Lot 2 DP 4169
Lot 1 DP 24265
Lot 2 DP 24265
RUATANIWHA STREET
RUATANIWHA STREET
Pt Lot 157 DP 169
10880084
Pt Lot 156 DP
088012600
t 1 DP 2110
SOUTH SERVICE LANE (OFF PORANGAHAU ROAD)
Pt Lot 3 DP 4169
Pt Lot 2 DP 3436
ACCESSWAY (OFF RUATANIWHA STREET)
Lot 1 DP 23678
Lot 2 DP 23678
Lot 3 DP 23678

All work shown or implied to comply with NZS3604 and the NZ Building Code.

Timber framing treatment to comply with NZS 3602:2003

Plumbing & drainage to comply with AS/NZS 3500:2003 and the NZ Building Code.

Do not scale from this drawing.

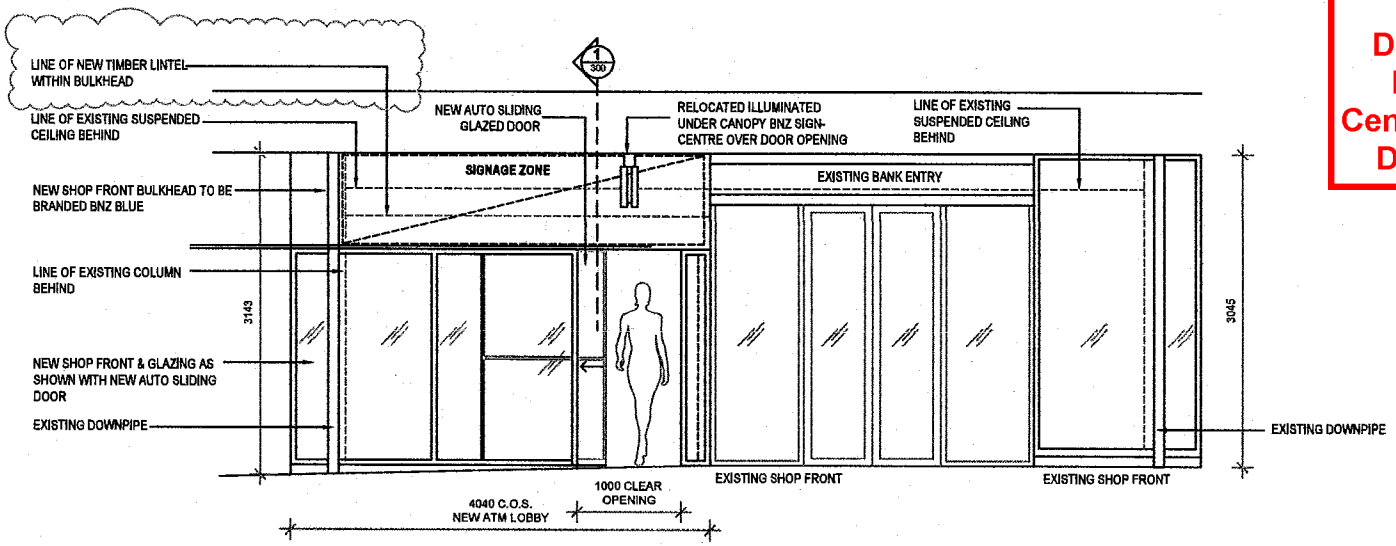
This drawing is to be read in conjunction with all relevant consultants, specialist manufacturers drawings and specifications

Any discrepancies in dimensions or details on or between these drawings should be drawn to our attention

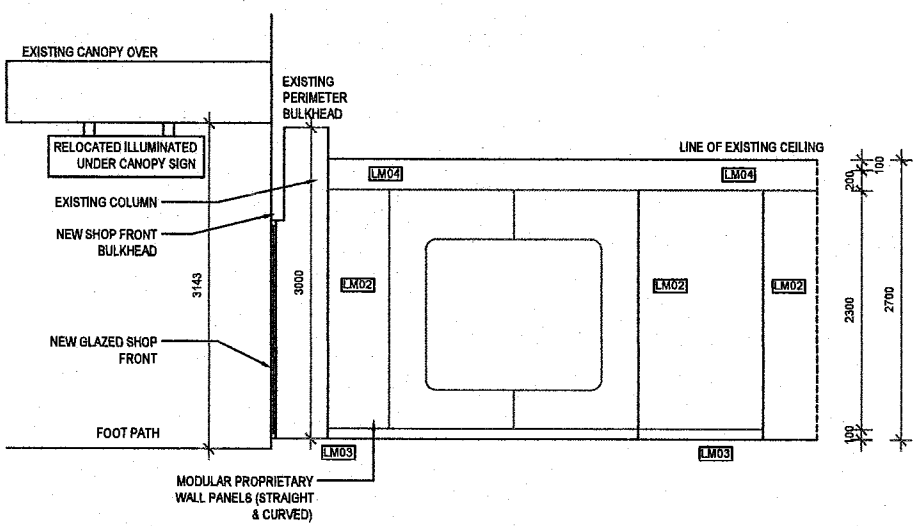
All dimensions are in millimetres unless noted otherwise.

Any surveyed information incorporated with this drawing cannot be guaranteed as accurate unless confirmed by a fixed datum

THIS SET OF DRAWINGS IS TO BE READ IN CONJUNCTION WITH RETAIL DIMENSION DRAWINGS AND DETAILS



01/130 **EXTERIOR ELEVATION**
SCALE 1:50



02/130 **INTERIOR ELEVATION**
SCALE 1:50

G.A. Hughes & Associates Ltd
6 De Luen Avenue
Whangaparaoa
Hibiscus Coast 0930
Ph: 09-424 4253 M: 0274 733 259

Approved
Signed G.A. Hughes
CPEng. #13402
Date 30/3/2021
Reference 21181/02

Rev	Date	Description
2	30.03.21	CONSENT/ ENGINEER
1	29.03.21	ISSUED FOR COMMENT

Project Title
BNZ - REMOTE LOBBIES

Project Address
63 RUATANIWHA STREET
WAIPUKARAU

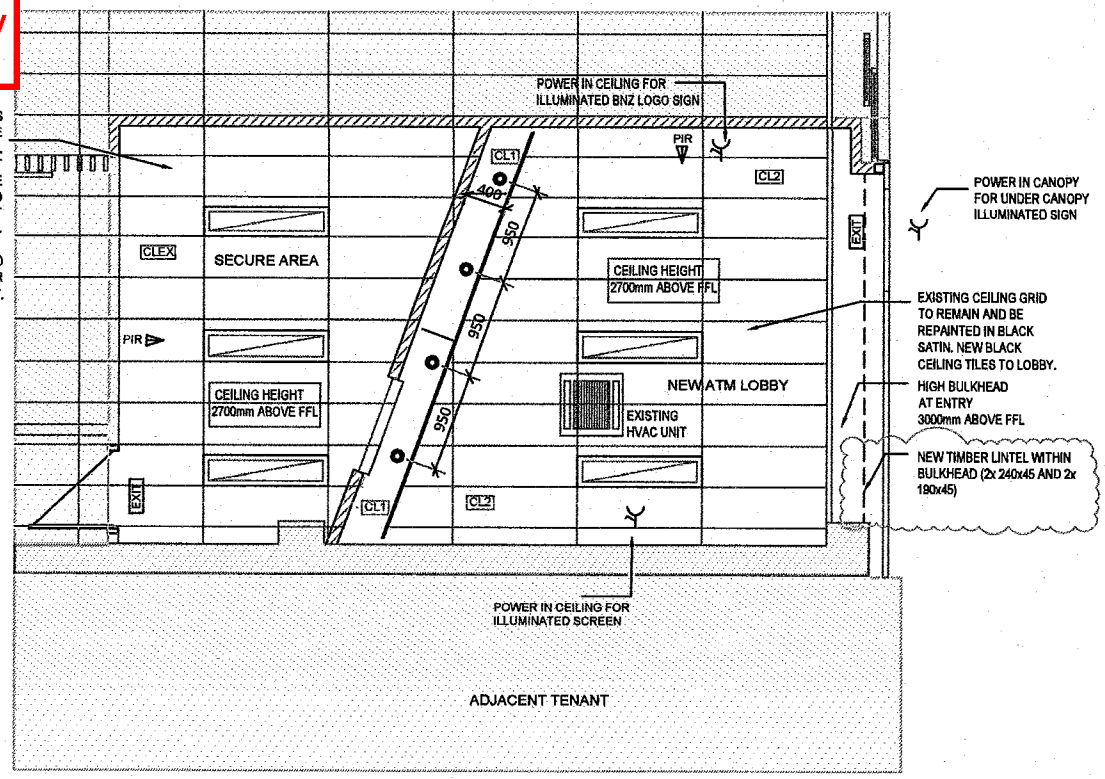
Drawing Title
ELEVATIONS - SHOPFRONT & INTERNAL

Henderson
6 Clonmay Place
Henderson 0610
Phone 09 836 5824

Rosedale
8-10 Vulcan Place
Rosedale 0632
Phone 09 448 1095

www.retaildimension.co.nz

Drawing			
Job No J27231		Sheet 200	Revision 2
Issue			
Scale 1:50 @ A3		Drawn By SEB/ DR	
Date 03.21		File	



CEILING PLAN

1:50 @ A3

LEGEND - LIGHTING

- LED TROFFER PANS OR SURFACE MOUNTED 1200 x 300 TBC WITH DIFFUSER COVERS BLACK TRIMS TO LOBBY/ WHITE TRIMS TO BUNKER EXTG TILES TO BE CHECKED AS TO SIZE GENERALLY 1200 X 600 ON PIR OCCUPANCY SENSORS
- LED TROFFER PANS OR SURFACE MOUNTED 600 x 300 TBC WITH DIFFUSER COVERS BLACK TRIMS TO LOBBY/ WHITE TRIMS TO BUNKER EXTG TILES TO BE CHECKED AS TO SIZE GENERALLY 1200 X 600 ON PIR OCCUPANCY SENSORS
- JOINERY BULKHEAD ABOVE ATM WALL: LED DOWNLIGHTS - WHITE TRIMS COLOUR: TBC ON PIR OCCUPANCY SENSORS
- PIR ALL LIGHTING ON PIR OCCUPANCY SENSORS

LEGEND - HVAC

EXISTING HVAC UNIT TO BE RE-USED.

ENSURE CONTROLS REMAIN ACCESSIBLE FOR SERVICING

FIRE SERVICES

EXIT NEW EXIT SIGNS AS REQUIRED - REFER FIRE REPORT.

REFER FIRE REPORT FOR ALL SERVICES & SYSTEMS REQUIRED, INCLUDING FIRE RATINGS TO WALLS & FLOORS, PASSIVE FIRE PROTECTION TO ANY NEW AND EXTG WALL/FLOOR PENETRATIONS.
RELOCATE ANY EXTG WALL MOUNTED FIRE SOUNDERS TO SUIT.

All work shown or implied to comply with NZS3604 and the NZ Building Code.

Timber framing treatment to comply with NZS 3602:2003

Plumbing & drainage to comply with AS/NZS 3500:2003 and the NZ Building Code.

Do not scale from this drawing.

This drawing is to be read in conjunction with all relevant consultants, specialist manufacturers drawings and specifications

Any discrepancies in dimensions or details on or between these drawings should be drawn to our attention

All dimensions are in millimetres unless noted otherwise.

Any surveyed information incorporated within this drawing cannot be guaranteed as accurate unless confirmed by a fixed dimension

THIS SET OF DRAWINGS IS TO BE READ IN CONJUNCTION WITH RETAIL DIMENSION DRAWINGS AND DETAILS

Rev	Date	Description
2	30.03.21	ISSUE FOR CONSENT / ENGINEER
1	29.03.21	ISSUE FOR COMMENT

G.A. Hughes & Associates Ltd
6 De Luen Avenue
Whangaparaoa
Hibiscus Coast 0930
Ph: 09-424 4253 M: 0274 733 259

Approved
Signed G.A. Hughes
CPEng. #13402
Date 30/3/2021
Reference 21181D3

Project Title
BNZ - REMOTE LOBBIES

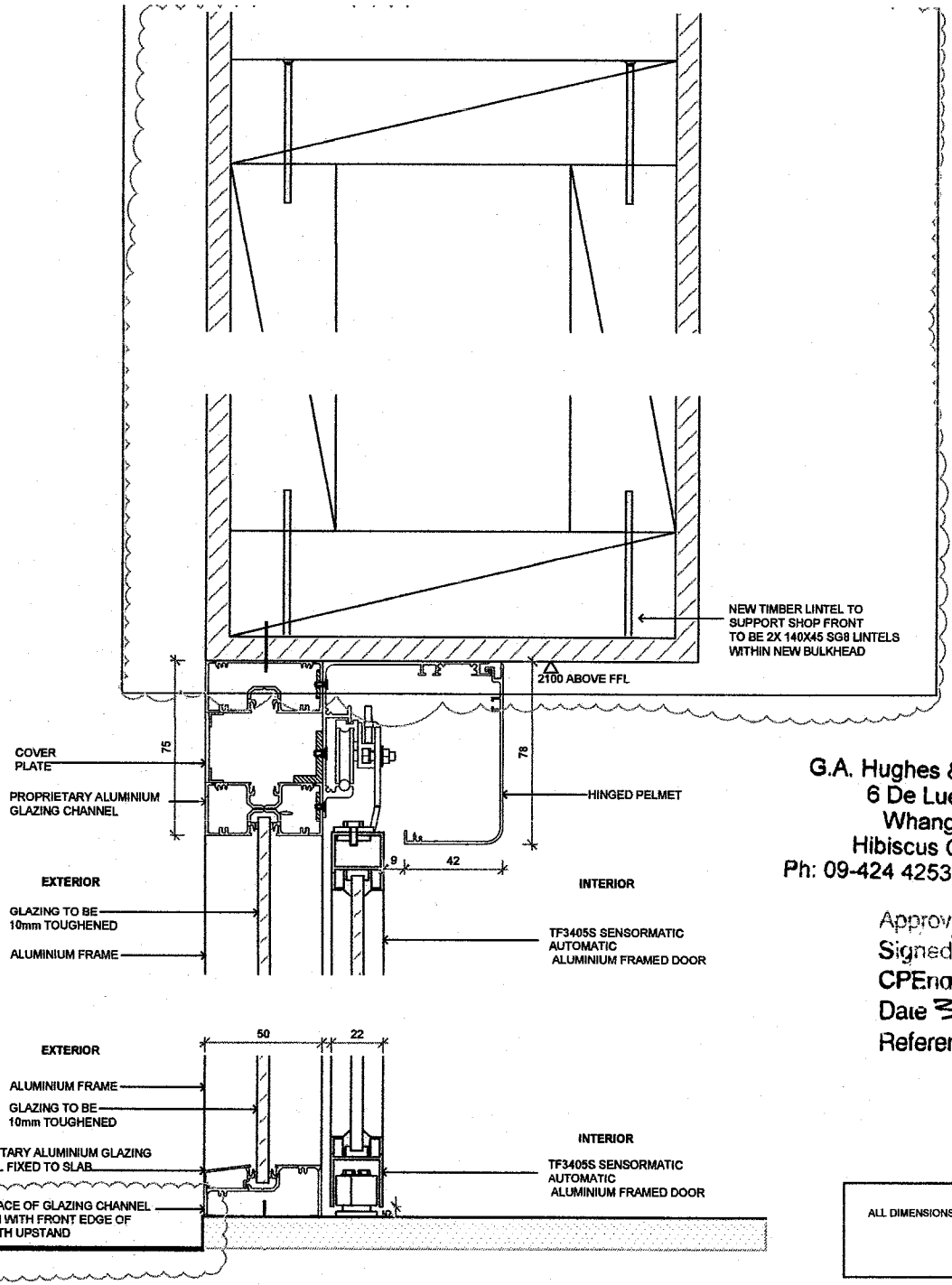
Project Address
63 RUATANIWHA STREET
WAIPUKARAU

Drawing Title
CEILING PLAN

Retail Dimension
Henderson
6 Clemsway Place
Henderson 0610
Phone 09 836 5624
Rosedale
8-10 Vulcan Place
Rosedale 0632
Phone 09 448 1065
www.retaildimension.co.nz

Drawing			
Job No	J27231	Sheet 140	Revision 2
Issue			
Scale	1:50	Drawn By	SEB/ DR
Date	03.21	File	

APPROVED
BC210123
14/05/2021
Duncan Renner
Page 20 of 28
Central Hawkes Bay
District Council



1 **SHOP FRONT SECTION**
0-200 SCALE 1:2 @ A3

All work shown or implied to comply with NZS3604 and the NZ Building Code.

Timber framing treatment to comply with NZS 3602:2003

Plumbing & drainage to comply with AS/NZS 3500:2003 and the NZ Building Code.

Do not scale from this drawing.

This drawing is to be read in conjunction with all relevant consultants, specialist manufacturers drawings and specifications

Any discrepancies in dimensions or details on or between these drawings should be drawn to our attention

All dimensions are in millimetres unless noted otherwise.

Any surveyed information incorporated within this drawing cannot be guaranteed as accurate unless confirmed by a fixed dimension

THIS SET OF DRAWINGS IS TO BE READ IN CONJUNCTION WITH RETAIL DIMENSION DRAWINGS AND DETAILS

G.A. Hughes & Associates Ltd
6 De Luen Avenue
Whangaparaoa
Hibiscus Coast 0930
Ph: 09-424 4253 M: 0274 733 259

Approved
Signed G.A. Hughes
CPEng. #13402
Date 30/3/2021
Reference 21181/03

Rev	Date	Description
1	30.03.21	CONSENT/ ENGINEER
1	29.03.21	ISSUED FOR COMMENT

Project Title
BNZ - REMOTE LOBBIES

Project Address
63 RUATAMWHA STREET
WAIPUKARAU

Drawing Title
SHOPFRONT VERTICAL SECTION

Henderson
6 Clemway Place
Henderson 0610
Phone 09 836 5624

Rosedale
8-10 Volkmer Place
Rosedale 0632
Phone 09 448 1065

www.retaildimension.co.nz

ALL DIMENSIONS ARE TO BE CONFIRMED ON SITE.

Drawing			
Job No	J27231	Sheet 300	Revision 2
Issue			
Scale	1:2	Drawn By	SEB/ DR
Date	03.21	File	

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street, PO Box 127, Waipawa 4240, New Zealand
Telephone: (06) 857-8060, Fax: (06) 857-7179
Email: info@chbdc.govt.nz
www.chbdc.govt.nz

Code Compliance Certificate BC150036

Section 95, Building Act 2004

The Building

Street address of building: 63 Ruataniwha Street, Waipukurau

Legal description of land where building is located: Lot 2 DP 24265

Building Name: BNZ
Location of building within site/block number:
Level/unit: 1
Valuation number: 1088011600
Description of Work: Demolition of existing structure, Structural works to adj building for support, Construct Single Storey Commercial Bldg
Current, lawfully established, use: Commercial
Year first constructed: 2015

WORK SUPERVISED
BY JH DATE 20/5/16
SIGNATURE

The Owner

BNZ Branch Properties Ltd
C/o Scott Kuegler
Level 9 - 80 Queen St
Auckland 1010

Landline: (09) 9280515 **Mobile:** 021945534
Daytime: **After hours:**

Building Work

Building consent number: 150036 **Issued by:** Central Hawkes Bay District Council

Code Compliance

The Building Consent Authority named below is satisfied, on reasonable grounds, that the building work complies with the building consent.
The specified systems in the building are capable of performing to the performance standards set out in the building consent

Signature: _____ Position: Building Control Administrator CHB District Council

Date: 20 May 2016 On behalf of: Central Hawkes Bay District Council

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

RUATANIWHA STREET, PO BOX 127, WAIPAWA 4240, NEW ZEALAND
TELEPHONE: (06) 857-8060, FAX: (06) 857-7179
EMAIL: info@chbdc.govt.nz
www.chbdc.govt.nz

COPY

20 May 2016

BNZ Branch Properties Ltd
Level 9
80 Queen St
Auckland 1010

ATTN: **Scott Kuegler**

COMPLIANCE SCHEDULE & STATEMENT FOR
BNZ, WAIPUKURAU
CS0065

Please find enclosed Compliance Schedule Statement & Compliance Schedule issued in accordance with the requirements of the Building Act.

The Building Act places the responsibility of inspecting buildings on the building owner, who must arrange for inspections, keep records and display certificates confirming the building meets all the safety requirements.

The system works as follows:

The Council issues a Compliance Schedule Statement, which lists the features of your building and the inspection and reporting procedures.

The owner arranges for the inspections by Independent Qualified Persons. Their reports must be kept and made available for any person using the building.

Every year on the anniversary of the enclosed Schedule the owner must issue a Warrant of Fitness to the local Council, which confirms that the owner's responsibility has been met and the building is safe.

The copy of the Warrant of Fitness must be displayed in a public place in the building together with notification of where the inspection reports are held and may be viewed.

The local Council inspectors may at any time visit and confirm that the owner has carried out his responsibility. The fines for non-compliance or false statements are very high.

You will note that the inspections mentioned above must be carried out by Independent Qualified Persons. A list of Independent Qualified Persons can be provided if required.

Please do not hesitate to contact this Office if further information is required.

Yours faithfully,

Jess Matthews
Regulatory Services Administrator

Encl.

Building Control Administrator
CHB District Council

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street, PO Box 127, Waipawa 4240, New Zealand
Telephone: (06) 857-8060, Fax: (06) 857-7179
Email: info@chbdc.govt.nz
www.chbdc.govt.nz

COMPLIANCE SCHEDULE STATEMENT

CS0065

Section 105, Building Act 2004

The Building

Street address of building: 63 Ruataniwha Street, Waipukurau
Legal description of land where building is located: Lot 2 DP 24265
Valuation number: 1088011600
†Building name: BNZ
†Location of building within site/block number:
†Level/unit number:
Current, lawfully established, use: Commercial
Year first constructed: 2015

The Owner

Name of owner: BNZ Branch Properties Ltd
*Contact person: Scott Kuegler
Mailing address: Private Bag 92209, Victoria Street West, Auckland 1142
Street address/registered office: Level 9, 80 Queen St, Auckland 1010
Phone number: Landline: (09) 9280515 Mobile: 021945534
Daytime: After hours: 021 907 754
Facsimile number:
Email address: scott_kuegler@bnz.co.nz

Specified systems

The following specified systems are covered by the compliance schedule for this building:

WORK SUPERVISED
BY DRA DATE 20/5/16
SIGNATURE

SS 3 Electromagnetic or automatic doors or windows
- SS 3/1 Automatic doors
- SS 3/2 Access controlled doors

SS 4 Emergency lighting systems

SS 9 Mechanical ventilation or air conditioning systems

SS 14 Emergency power systems for, or signs relating to, a specified system in any of specified systems 1–13
- SS 14/1 Emergency power systems
- SS 14/2 Signs

SS 15 Other fire safety systems or features
- SS 15/2 Final exits
- SS 15/3 Fire separations
- SS 15/4 Signs for communicating information intended to facilitate evacuation

The compliance schedule is kept at: ***63 Ruataniwha Street, Waipukurau***

Signature: _____ Position: Building Control Administrator CHB District Council

On behalf of: Central Hawkes Bay District Council
Date: 20/05/2016

This statement is valid for 12 months after the date stated above.

CENTRAL HAWKE'S BAY DISTRICT COUNCIL
Ruataniwha Street, PO Box 127, Waipawa 4240, New Zealand
Telephone: (06) 857-8060, Fax: (06) 857-7179
Email: info@chbdc.govt.nz
www.chbdc.govt.nz

Compliance Schedule
CS0065

COPY

1. The Building

Street address of building: 63 Ruataniwha Street, Waipukurau

Legal description of land where building is located: Lot 2 DP 24265

Valuation number: 1088011600

Building name: BNZ

Current, lawfully established, use: Commercial Retail/ Bank.

Building consent number: 150036

Highest Risk Group or fire hazard category assessed for building use: C/AS4 - CA

Maximum Occupancy for the building: Designed to 19 persons

Purpose Group (As per Specified Systems, Change the Use, and Earthquake – Prone Buildings) Regulations 2005 - WL (Working Low)

WORK SUPERVISED
BY _____ DATE 20/5/16
SIGNATURE

2. The Owner

Name of owner: BNZ Branch Properties Ltd

Contact person: Scott Kuegler

Mailing address: Private Bag 92209, Victoria Street West, Auckland 1142

Street address: Level 9, 80 Queen St, Auckland 1010

Phone number: Landline: (09) 9280515 **Mobile:** 0212831000

Facsimile number:

Email address: Scott_Kuegler@bnz.co.nz

3. SPECIFIED SYSTEMS

SS 3 Electromagnetic or automatic doors or windows

- SS 3/1 Automatic doors
- SS 3/2 Access controlled doors

SS 4 Emergency lighting systems

SS 9 Mechanical ventilation or air conditioning systems

SS 14 Emergency power systems for, or signs relating to, a specified system in any of specified systems 1–13

- SS 14/1 Emergency power systems
- SS 14/2 Signs

SS 15 Other fire safety systems or features

- SS 15/2 Final exits
- SS 15/3 Fire separations
- SS 15/4 Signs for communicating information intended to facilitate evacuation

The Specified Systems, including Maintenance and Reporting Procedures are attached.

Signature: _____

Building Control Administrator
Position: CHB District Council

On behalf of the Central Hawkes Bay District Council
Date: 20th May 2016

SS 3: Electromagnetic or Automatic Doors or Windows

SS3/1 Automatic Doors

Type	Make: Sensormatic Model: LS200	**Location(s)**	Main Entry Doors
Performance Standard	NZS4239:1993 – 3/1 Failsafe Automatic Doors		
Inspection Requirements	**Daily** Doors should be inspected to ensure they can be opened and that they are not: • Locked • Barred • Blocked **Annual** – In accordance with the Performance Standard above - NZS4239:1993		
Maintenance Requirements	Planned preventative maintenance and responsive maintenance.		
Persons Responsible for inspections	**Owner** - Daily **IQP**– Quarterly/Annual		
Reporting	Inspections shall be logged: Manually within Log Book to be kept on premises Records to be kept for two years		

SS 3: Electromagnetic or Automatic Doors or Windows

SS3/2 Access Controlled Doors

Type	**Make**: Mortice-Lockwood **Model**: 3572 electric mortise lock keypad.	**Location(s)**	Two doors for office area As per CS floor plan
Performance Standard	NZS4239:1993 – 3/1 Failsafe Automatic Doors		
Inspection Requirements	**Daily** Doors should be inspected to ensure they can be opened and that they are not: • Locked • Barred • Blocked. **Annual** - In accordance with the Performance Standard above - NZS4239:1993		
Maintenance Requirements	Planned preventative maintenance and responsive maintenance.		
Persons Responsible for inspections	**Owner** – Daily **IQP**– Quarterly/Annual		
Reporting	Inspections shall be logged: Manually within Log Book to be kept on premises Records to be kept for two years		

SS 4: Emergency Lighting Systems

Type	**Make & Model**: ETAP K723/3N	**Location(s)**	Throughout building as per emergency lighting layout plan
Performance Standard	NZBC, Clause F6/AS1 Amendment 3 2014 and AS/NZS 2293:1995		
Inspection Requirements	To the standard and compliance document noted above		
Maintenance Requirements	Planned preventative maintenance and responsive maintenance.		
Persons Responsible for inspections	**IQP**– Every six months		
Reporting	Inspections shall be logged: Manually within Log Book to be kept on premises Records to be kept for two years		

SS 9: Mechanical Ventilation or Air Conditioning Systems

Type	**Make & Model:** Fantech TD-2000/315SIL	**Location(s)**	Ceiling space
Performance Standard	AS 1668.2:2012, G4/AS1 NZBC amendment 3 2014 & NZS4303:1990		
Inspection Requirements	In accordance with G4/AS1 NZBC amendment 3 2014 & NZS4303:1990		
Maintenance Requirements	Planned preventative maintenance and responsive maintenance.		
Persons Responsible for inspections	**IQP**– Annual inspections		
Reporting	Inspections shall be logged: Manually within Log Book to be kept on premises Records to be kept for two years		

SS 14: Emergency Power Systems for, or Signs Relating to, a Specified System in any of Specified Systems 1-13

SS 14/2 Signs

Type	**Door Make:** Sensormatic Model: LS200 ** Operation instruction sign adjacent to door.	**Location(s)**	Inside right hand side of main door.
Performance Standard	As per SS3 standard NZS4239:1993 – 3/1 ** Sign showing location of automatic door for accessibility		
Inspection Requirements	**Monthly** - ensure they are: • The correct type, • Present • In the right locations • Legible **Annually** – As per above performance Standard		
Maintenance Requirements	Planned preventative maintenance and responsive maintenance.		
Persons Responsible for inspections	**Owner** - Monthly **IQP** – Annual inspections		
Reporting	Inspections shall be logged: Manually within Log Book to be kept on premises Records to be kept for two years		

SS 15: Other Fire Safety Systems or Features

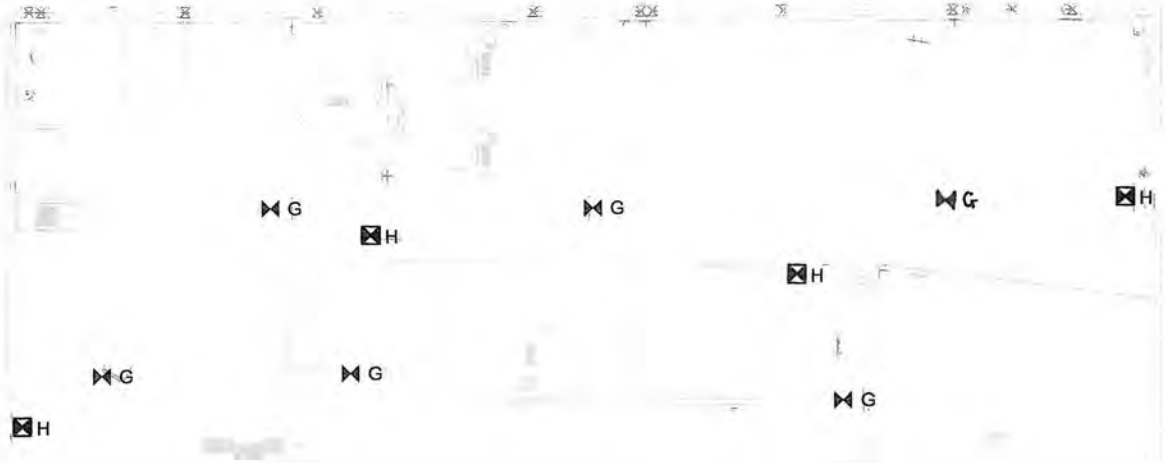
SS 15/2 Final Exits
SS 15/4 Signs for communicating information intended to facilitate evacuation

Type	**Make & Models:** ETAP K744/3P	**Location(s)**	Throughout building as per emergency lighting layout plan
Performance Standard	NZBC, Clause F8/AS1 Amendment 3 2014 and AS/NZS 2293:1995		
Inspection Requirements	**Monthly** - ensure they are: • The correct type, • Present • In the right locations • Legible • Illuminated **Six monthly** – As per above performance standard - AS/NZS 2293:1995		
Maintenance Requirements	Planned preventative maintenance and responsive maintenance.		
Persons Responsible for inspections	**Owner** – Monthly **IQP** – Six Monthly		
Reporting	Inspections shall be logged: Manually within Log Book to be kept on premises Records to be kept for two years		

SS 15: Other Fire Safety Systems or Features

SS 15/3 Fire Separations

Type	120 minute fire rated block walls.	**Location(s)**	Two boundary walls
Performance Standard	In accordance with C/AS4 :2014		
Inspection Requirements	As per the above Performance Standard ** No penetrations in these walls, IQP to check this on an annual basis.		
Maintenance Requirements	Planned preventative maintenance and responsive maintenance.		
Persons Responsible for inspections	**IQP** – Annual inspections		
Reporting	Inspections shall be logged: Manually within Log Book to be kept on premises Records to be kept for two years		



EMERGENCY LIGHTING LAYOUT

SEISMIC PERFORMANCE
All Light fittings and tray/ladder to be installed according to NZS4219-2009.

Number	Amendment	Approved	Revision Date

bnz

OPUS
Hamilton Office
+64 7 838 9344
Private Bag 3057
Waikato Mail Centre
Hamilton 3240

Drawn	Designed	Approved	Revision Date
Mort Jones	Mort Jones	Venga Krish	29/10/2014

Project No.	Scale
4-M0633.01	1:100@A3

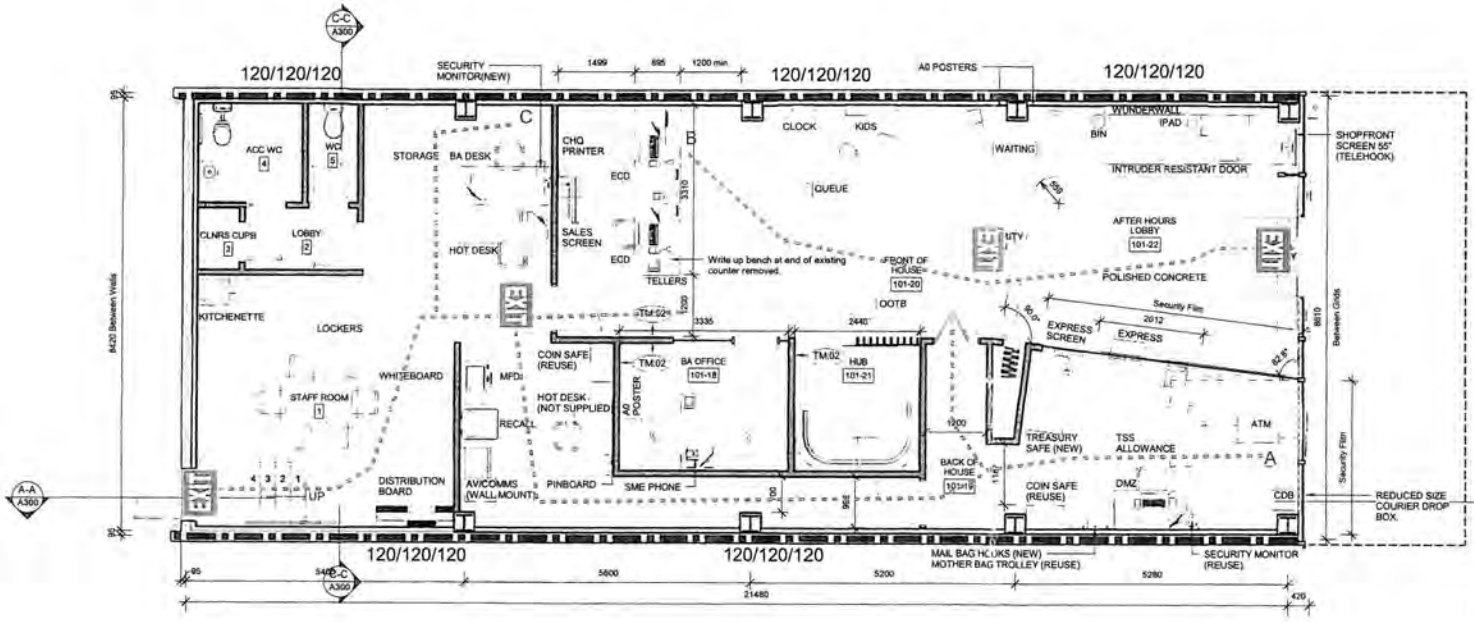
Project
BNZ Branch Properties Limited
63 Ruataniwha Street, Waipukurau
BNZ Waipukurau

Sheet
ELECTRICAL SERVICES
EMERGENCY LIGHTING LAYOUT

Drawing No.	Sheet No.	Revision
1/2616/2/7203	510	R0

CONSENT AND TENDER

1:1 @ A1
1:2 @ A3
0 10 20 30 40 50 60 70 80 90 100 mm



1 A200 PROPOSED PLAN
1 : 50

FIT OUT LEGEND

- Strapping to precast walls, insulated and lined.
- 92mm Steel stud internal partitions with 13mm GIB plasterboard or MDF lining.
- Potters full height internal glazing system.
- TM.02 92mm Steel stud internal partitions with 12mm MDF wall lining and TM.02 Timber Veneer.

STORE INFORMATION

GENERAL

STAFF No: 4.2 FTE's
WC's Required: 2 including 1x Accessible WC

SHOP KEY

SHOP FRONT
ATM: New
Courier drop box: New
Shopfront Screen: 55" Portrait

ELECTRICAL
COMMS Cabinet: New
PABX: New
Security Panel: Reuse
Distribution Board: New

PLUMBING
Accessible WC: New
Cleaner's sink: New
Kitchenette: New

CEILING
New Ceiling grid and tile
All services designed by Engineers to suit

FLOORING
FOH & BOH: Carpet tiles
After Hour Lobby: Polished Concrete
Kitchen & Accessible WC: Vinyl

SAFES
Coin Safes x2: 1 Existing to be reused x 1 New
Treasury Safe: New

FURNITURE
Items to be reused indicated on Sheet A605 - Fit-out_Furniture & Joinery Schedule.

LEGEND

- 120 minute FR construction
- Provide emergency lighting in compliance with NZBC F6
- Illuminated exit signage to NZBC F8
- Travel distance

DO NOT SCALE
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING ANY WORK.

REVISIONS

A	Preliminary Issue	07/10/2014
B	Draft Consent and Tender Issue	29/10/2014

PRELIMINARY
NOT FOR CONSTRUCTION

NOTES

OPUS architecture
Auckland Studio
PO Box 5649, Auckland 1010
New Zealand
+64 9 355 9500

Client
Bank of New Zealand

Project
BNZ Waipukurau
63 Ruataniwha Street
Waipukurau

Sheet Name
FIT-OUT_ GENERAL LAYOUT PLAN

SCALE @ A1= 1 : 50

North

DESIGN	VR
DRAWN	VR
VERIFIED	RA
APPROVED	SG

Project No: 4-M0633.01
Issue Date: 29/10/2014
Revision: B
Sheet No: A105
ARCHITECTURAL

VULCAN	PROJECT TITLE: BNZ Waipukurau
	PROJECT NO.: 14060 / DATE: 5/11/14
	DRAWING TITLE: Fire Engineering Design
	DRAWING NO.: FSK001 / REVISION: C
	VULCAN FIRE ENGINEERING LTD PO BOX 133239, EASTRIDGE, AUCKLAND 1146 PH.. 021 163 8844 www.vfe.co.nz [redacted]@vfe.co.nz

Original sheet size A1 (841x594) Plot date: 29/10/2014 18:38:33 p.m. c:\Projects\BNZWA_Tender_2014_Central_ausmig0.rvt

Sensormatic
Automatic Doors Ltd
Agents for Sensormatic Automatic Doors

COMMERCIAL DOOR SERVICES

COMMERCIAL DOOR SERVICES LTD
Wellington Branch
New Zealand
Phone / Fax: 04 589 0381

To: Twin City Aluminium

From: Marc Geerlings

Attention: Paul

Date: 5th May 2016

Email: twincityaluminium@xtra.co.nz

Number of Pages: **1**

Producer Statement for:
Automatic Door Operator @ BNZ, 44 Ruataniwha St, Waipukurau.

As the manufacturer of Sensormatic Automatic doors, we certify that the doors have a failsafe system fitted and comply too NZS 4239.1993 for Automatic Sliding Doors and to the requirements of the NZ building code (Means of Escape 3.17).

Doors to drive fully open automatically on power failure / fire alarm (integration by others) Failsafe consists of a 12 v DC battery & control board also incorporating battery charger. Doors automatically return to original function mode when power resumes or fire signal deactivated

The doors should be listed on the buildings Compliance schedule under SS3/1.

In order to maintain compliance to NZS 4239.1993 they will then require 4 monthly maintenance service checks by a registered IQP / LBP to ensure ongoing compliance and safety.

If all the maintenance and inspections have been carried out to NZS 4239.1993 requirements in the preceding 12 months then a 12a certificate can be issued by the registered IQP who has carried out the work.

Regards

Marc Geerlings
Wellington Regional Manager
Commercial Door Services
Mobile 021 724 479
marc@cid.co.nz

Monarch™
Advanced Air Systems
Heating | Ventilation | Air Conditioning
P O Box 5531 | Palmerston North 4441 | Phone 06 356 8596 | Fax 06 953 0604 | Email monarch.advanceair@clear.net.nz

Producer Statement – PS3 – Construction

Issued by:	**Monarch Advanced Air Systems**
To:	**McMillian & Lockwood**
To Be Supplied To:	**Central Hawkes Bay District Council**
In Respect Of:	**BNZ Waipukurau**
At:	**563 Ruatamiwha Street, Waipukurau**

Monarch Advanced Air Systems has been contracted by **McMillian & Lockwood** to provide the **Mechanical Ventilation and Air Conditioning Systems,** in accordance with the contract titled **BNZ Waipukurau. 563 Ruatamiwha Street, Waipukurau** and in respect of the requirements of AS1668.2-2012. NZS4303:1990 and the NZBC G4 Ventilation.

I. **Tim Walton,** a duly authorized representative of **Monarch Advanced Air Systems** believe on reasonable grounds that **Monarch Advanced Air Systems** has carried out and completed this work and that all systems are operating in accordance with the original contract titled **BNZ Waipukurau. 563 Ruatamiwha Street, Waipukurau.**

Signed..... (T J Walton) Date. 15/04/2016

Monarch Advanced Air Systems
P O Box 5531
Palmerston North

Monarch™
Advanced Air Systems
Heating | Ventilation | Air Conditioning
P O Box 5531 | Palmerston North 4441 | Phone 06 356 8506 | Fax 06 953 0624 | Email monarchadvance.air@clear.net.nz

Producer Statement – PS3 – Construction - Seismic Restraints

Issued by:	**Monarch Advanced Air Systems**
To:	**McMillian & Lockwood**
To Be Supplied To:	**Central Hawkes Bay District Council**
In Respect Of:	**BNZ Waipukurau**
At:	**563 Ruatamiwha Street, Waipukurau**

Monarch Advanced Air Systems has been contracted by **McMillian & Lockwood** to provide the **Seismic Restraints to the Ducting and Air Conditioning Units.** in accordance with the contract titled **BNZ Waipukurau. 563 Ruatamiwha Street, Waipukurau** and in respect of the requirements of the **NZS 4219:2009 Seismic Performance of Engineering Systems in Buildings** and the **Seismic Requirements & Isometric Mechanical Drawing, M603 R3.**

I, **Tim Walton,** a duly authorized representative of **Monarch Advanced Air Systems** believe on reasonable grounds that **Monarch Advanced Air Systems** has carried out and completed this work and that all systems are in accordance with the original contract titled **BNZ Waipukurau, 563 Ruatamiwha Street, Waipukurau.**

Signed..... (T J Walton) Date..15/04/2016.....

Monarch Advanced Air Systems
P O Box 5531
Palmerston North

CENTRAL HAWKE'S BAY DISTRICT COUNCIL
Ruataniwha Street, PO Box 127, Waipawa 4240, New Zealand
Telephone: (06) 857-8060, Fax: (06) 857-7179
Email: info@chbdc.govt.nz
www.chbdc.govt.nz

Certificate for Public Use

Section 363A, Building Act 2004

BNZ

Description of premises for which certificate is issued:

63 Ruataniwha Street

Waipukurau

Building work affecting premise

Building consent number: 150036

Issued by: Central Hawkes Bay District Council

The applicant (person who owns, occupies, or controls premises)

Name and description of applicant: BNZ Branch Properties Ltd

Contact person: Scott Kuegler

Mailing address: Private Bag 92209, Victoria Street West, Auckland 1142

Phone number: Daytime: 0212831000 After hours:

Facsimile number:

Email address: Scott_Kuegler@bnz.co.nz

Certificate for Public Use will expire as of: 6th June 2016

Public use of premises

The territorial authority named below, being satisfied on reasonable grounds, in relation to the building work described above, that members of the public can safely use the premise described above, issues under section 363A(2) of the Building Act 2004 this certificate for public use in respect of the premise.

Nothing in this certificate limits the duty of the owner to apply for a code compliance certificate, nor does it relieve any person from compliance with any other legislative requirement.

Signature

Building Control Officer

Position

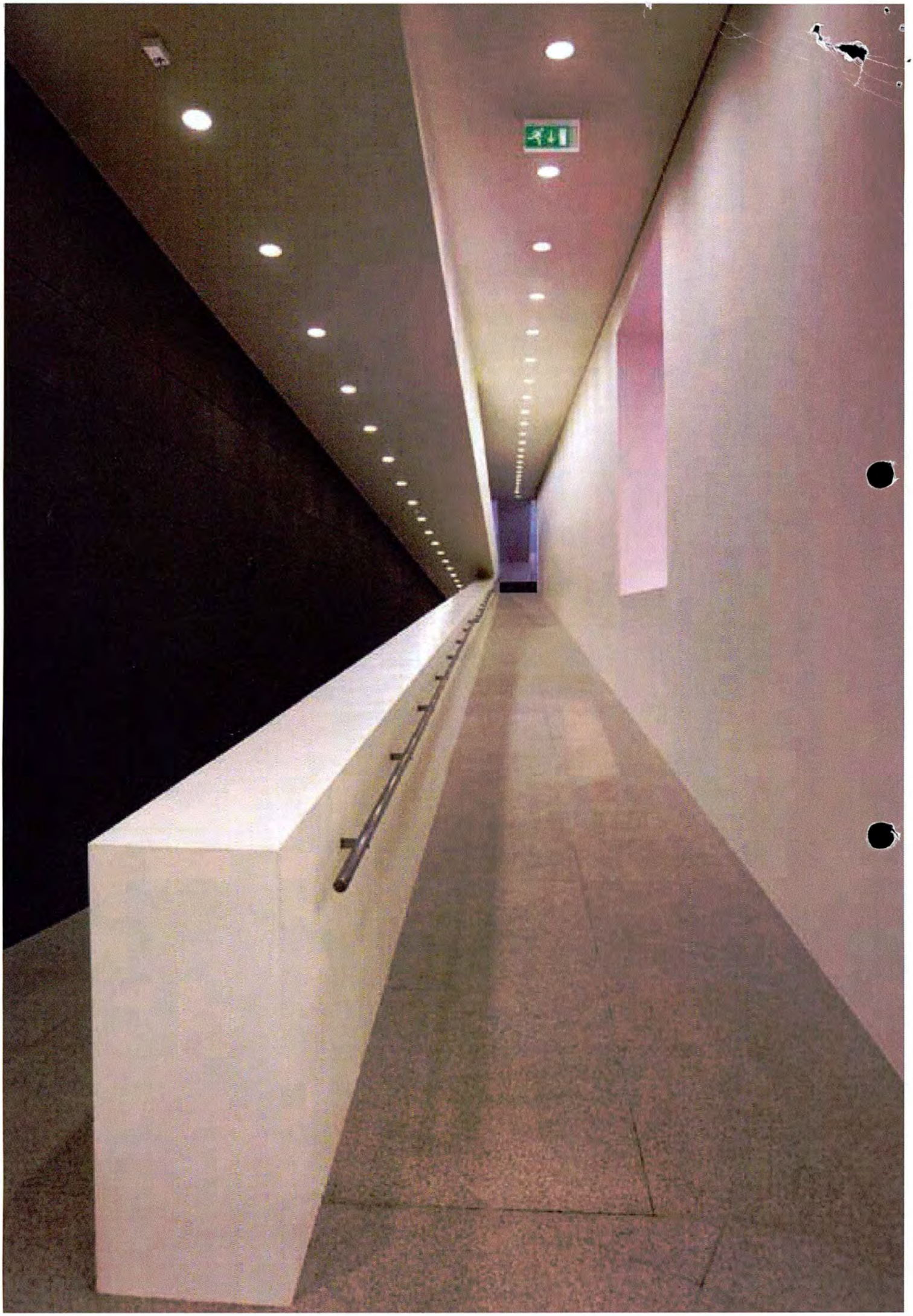
On behalf of: Central Hawkes Bay District Council

Date: 06 May 2016

K7

5 YEAR WARRANTY

ETAP



ETAP K7 is a complete range of compact emergency lighting based on LED technology. It is designed to fully exploit all of the advantages of LEDs.

Saving on maintenance and energy

Reduced maintenance cost

High quality LEDs provide lighting with a particularly long lifetime, but the light ouput decreases slightly in the course of time. By adapting the mechanical and thermal design of the LED system, our engineers managed to achieve a useful expected lifetime of more than ten years (see also the ETAP White Paper on LEDs, on www.etaplighting.com).

The long lifetime of LED luminaires has a positive influence on the light source replacement frequency and all related maintenance costs. The higher initial investment cost for K7 LED luminaires – compared to fluorescent luminaires – is paid back in two years.

Lower energy consumption

Energy use with LEDs is considerably lower than with fluorescent light sources. With LED luminaires you can achieve considerable savings compared to an installation of fluorescent luminaires, as shown in the example below.

Example: Energy consumption over 10 years of an installation with 100 luminaires of which 40 are maintained

	LED	FLUO	SAVING	Households *	CO_2 equivalents
self-contained	12.500 kWh	46.000 kWh	**33.500 kWh (70%)**	**9**	**19,8 tons**
central battery	17.500 kWh	40.000 kWh	**22.500 kWh (55%)**	**6**	**13,3 tons**

** The average yearly energy consumption of 1 household amounts to 3750 kWh*

Invest less for more safety

With K7 you don't need as many luminaires. Thanks to the carefully selected light optic, the K7 range offers escape route and anti-panic lighting luminaires with large distances for all mounting heights. You thus invest less to achieve the required light levels according to the European standard EN 1838.

Escape route
Wide-angle reflector with 3W LED.
The light is concentrated along the axis of the escape route.


Lens reflector

Anti-panic
All round, wide-angle lens with 3W LED.
The light is spread equally over the widest area possible.

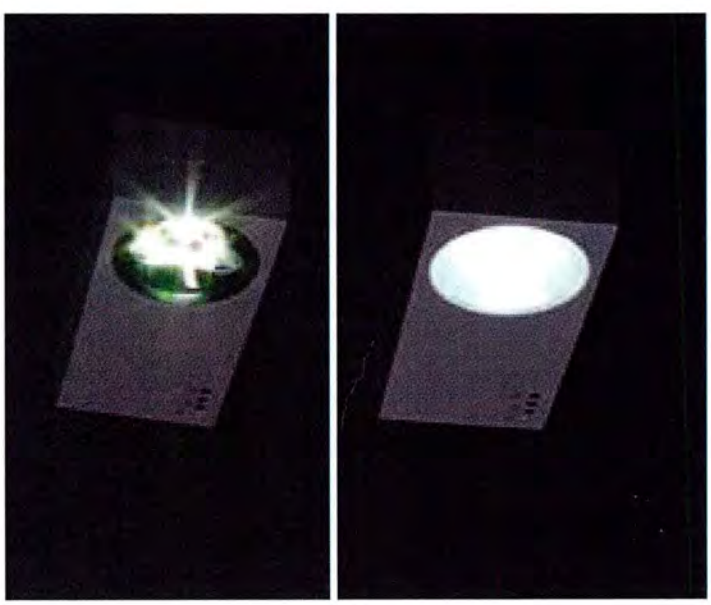

Lens

Stairways
Wide-angle Fresnel lens with 3W LED.
The light is concentrated along the axis of the stairs

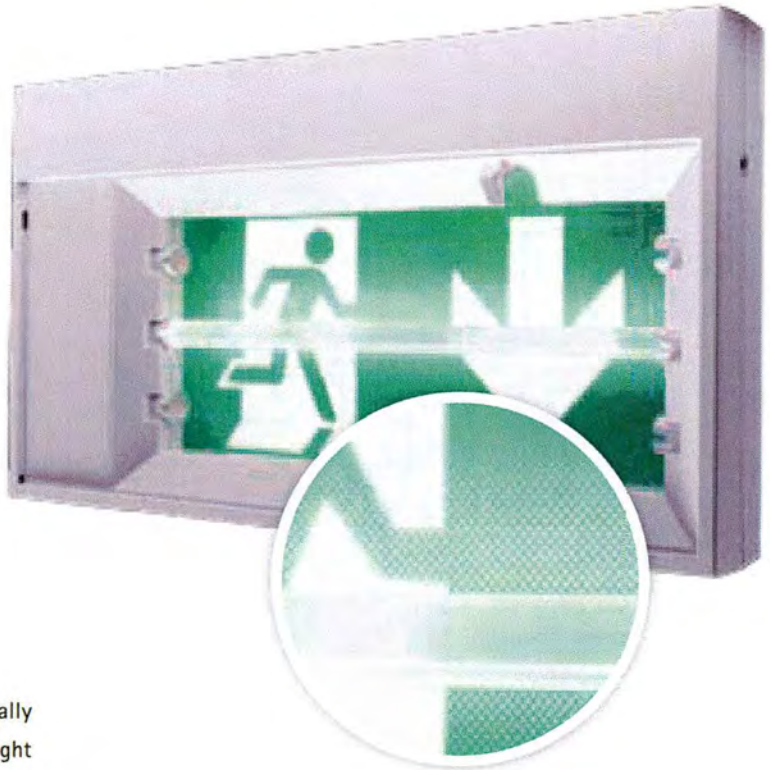

Lens

Maintained
The maintained versions provide an adequate illumination of corridors, stairways and open areas at night. Night guards or other personnel can easily find their way without using general lighting. The day light sensor deactivates the light source during the day to reduce energy consumption to a minimum.

Increased comfort
For areas where the maintained luminairs are too blinding because of unfavourable mounting conditions, the diffuser version increases viewing comfort considerably.


In the comfort version, the luminance is further reduced.

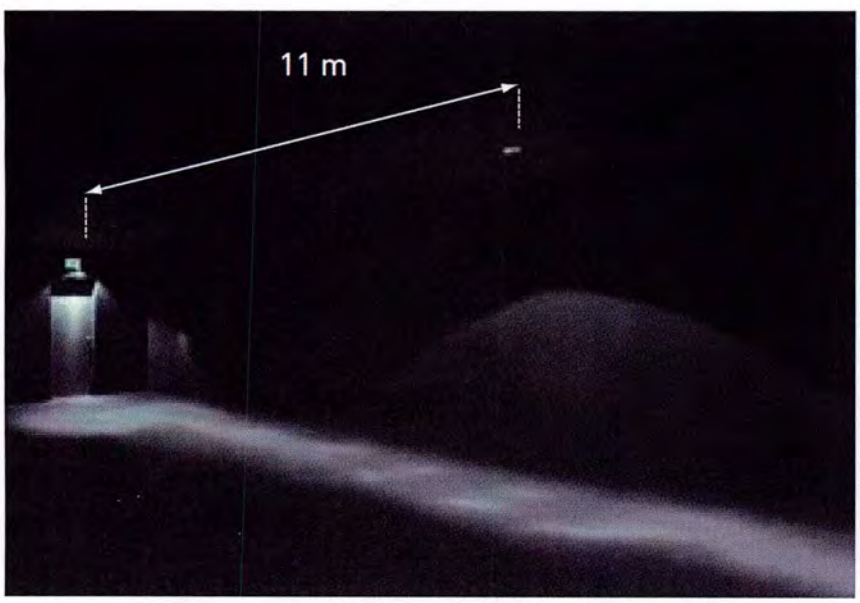
Better sign visibility



Signage luminaires with optimal visibility are critically important during an emergency situation. By using a light guide with only one 3W LED and a dot-matrix on the pictogram foil, we have created signage luminaires that have a perfect homogeneously illuminated pictogram for optimal visibility and increased safety.

Escape route and light spot module

K7 for signage can optionally be equipped with an escape route or light spot module to reduce the number of luminaires needed.



With an escape route module less luminaires are required to achieve 1 lux on the escape route, with a mounting height of 2.25 metres.

With a light spot module 5 lux is achieved, up to 4 metres mounting height without extra luminaires.

Easy to mount and maintain

Easy installation on all surfaces

Mounting the K7 series is very easy. The sheet metal mounting plate assures stable mounting without deforming even on irregular walls.

The through wiring accessory can also accommodate surface mounted cabling and a communication module to make the luminaire compatible with building management systems.

Flexibility

For K7 signage, the signage foil is easy to place, remove, and change. You simply slide the foil behind the luminaire cover during mounting. Because the foil is firmly located in the cover, it cannot slip and the image always stays clear and focused. This facilitates the recognition of the signs and results in a higher safety.

The signage and optional module can be set to operate as maintained or non-maintained. You can set this yourself when you install the luminaire. One luminaire type can easily be adapted to the on site requirements which simplifies your logistics.

Safe and easy maintenance

When dismounting a K7 luminaire, it automatically looses power thanks to the automatic connection system. Afterwards, all maintenance can easily be carried out at floor level.

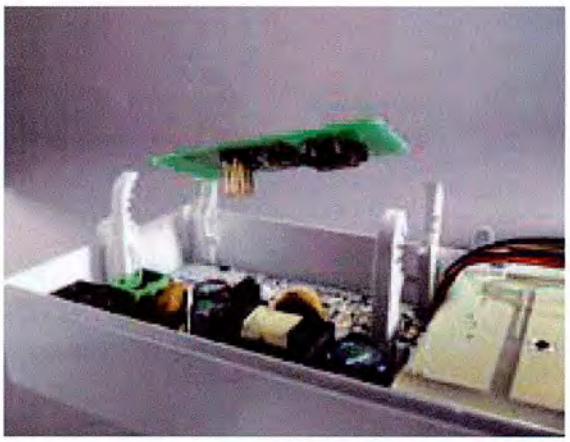
The LED light source is replaceable in all K7 luminaires. For signage luminaires the EST+ (European Safety Test) selftest indicates when the light source doesn't comply with the EN1838 anymore. After replacement, the safety is certain for another ten years.

Easy installation in all situations and on all types of surfaces;
Through wiring accessory;
The signage foil is very easy to place, remove, and change;
Simply disconnect to replace the LED light source.

Anticipate future expansions

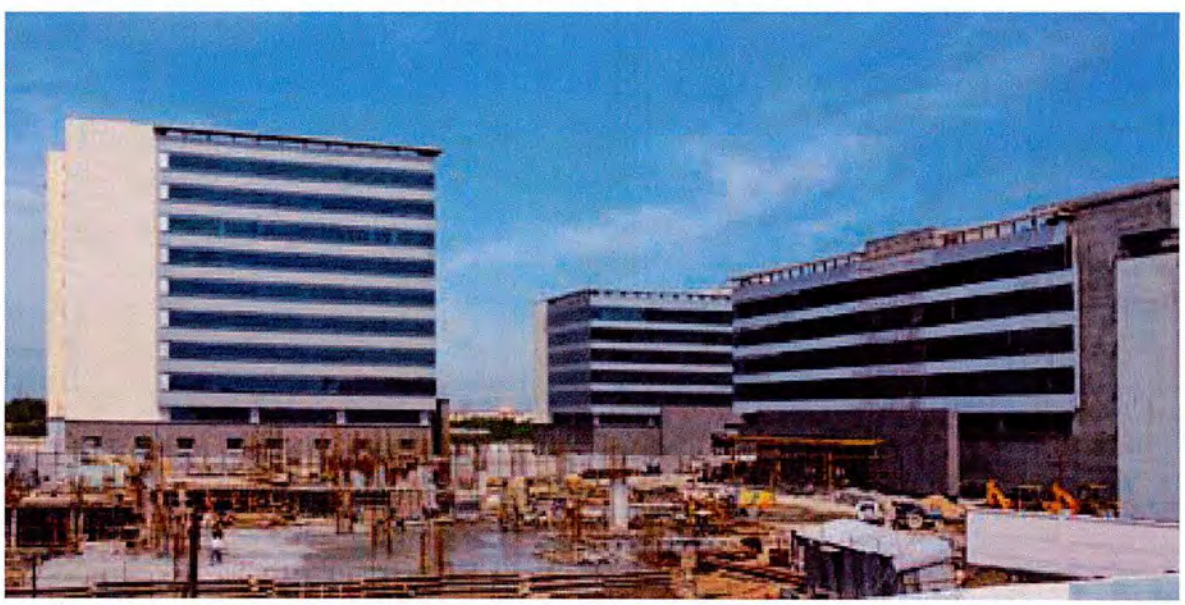
Upgradeable luminaires

When your installation expands in the course of time, the investment in a central control and management system becomes more relevant to comply with the standard EN50172 regarding testing and maintenance of your emergency installation. But this often requires the replacement of the existing luminaires. If you choose for K7 EST+ luminaires from the start, this issue does not arise. They can be equipped at any time with an upgrade circuit for wired or wireless communication. One simple handling is enough to adjust the existing K7 EST+ luminaires and connect them to the ETAP Safety Manager (ESM) System.



Upgrade to ESM

Whenever you extend your building complex and choose the ESM system, you must not replace the existing luminaires.



Decrease your ecological footprint

Less CO_2 emissions

Our K7 range is standard equipped with LEDs and NiMH batteries. This clearly results in lower energy consumption and consequently less CO_2 emissions in comparison with fluorescent luminaires. This can even mount to 70%. For example:

> The production of one kWh of electricity in Europe generates on average 590 grams* of CO_2-equivalents. By replacing 27 conventional maintained fluorescent luminaires with energy efficient K7 LED luminaires, CO_2 emission will decrease by more than 1,000 kg per year.
>
> *(*) source: Ecoinvent databank v.2.0*

In combination with a central battery system, K7 will exhibit a 3 times lower energy consumption than an installation with conventional fluorescent luminaires. You will be able to use a smaller ETAP Battery System (EBS). This results in a smaller investment and fewer batteries to recycle at the end of life.

Easier to recycle

NiMH batteries are more environmentally friendly than the conventional NiCd batteries. They do not contain any cadmium and are 50% more compact.

The small housing of the K7 lighting luminaires use less material that needs to be recycled at the end of its lifetime. Because the housing contains no screws, it can be disassembled very easily.

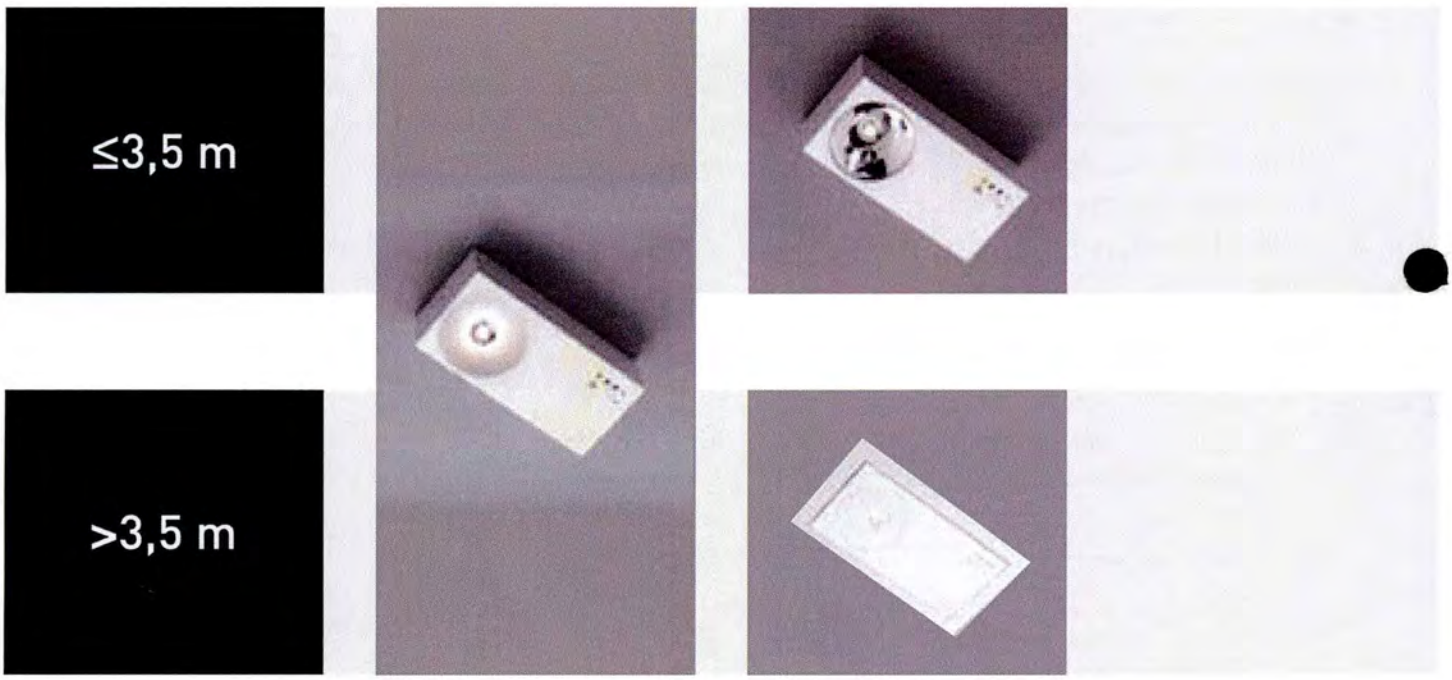
5 year Warranty

As a result of the high quality and reliability of components used in manufacturing the K7 product, ETAP is proud to offer a 5 year warranty.

One style throughout your building

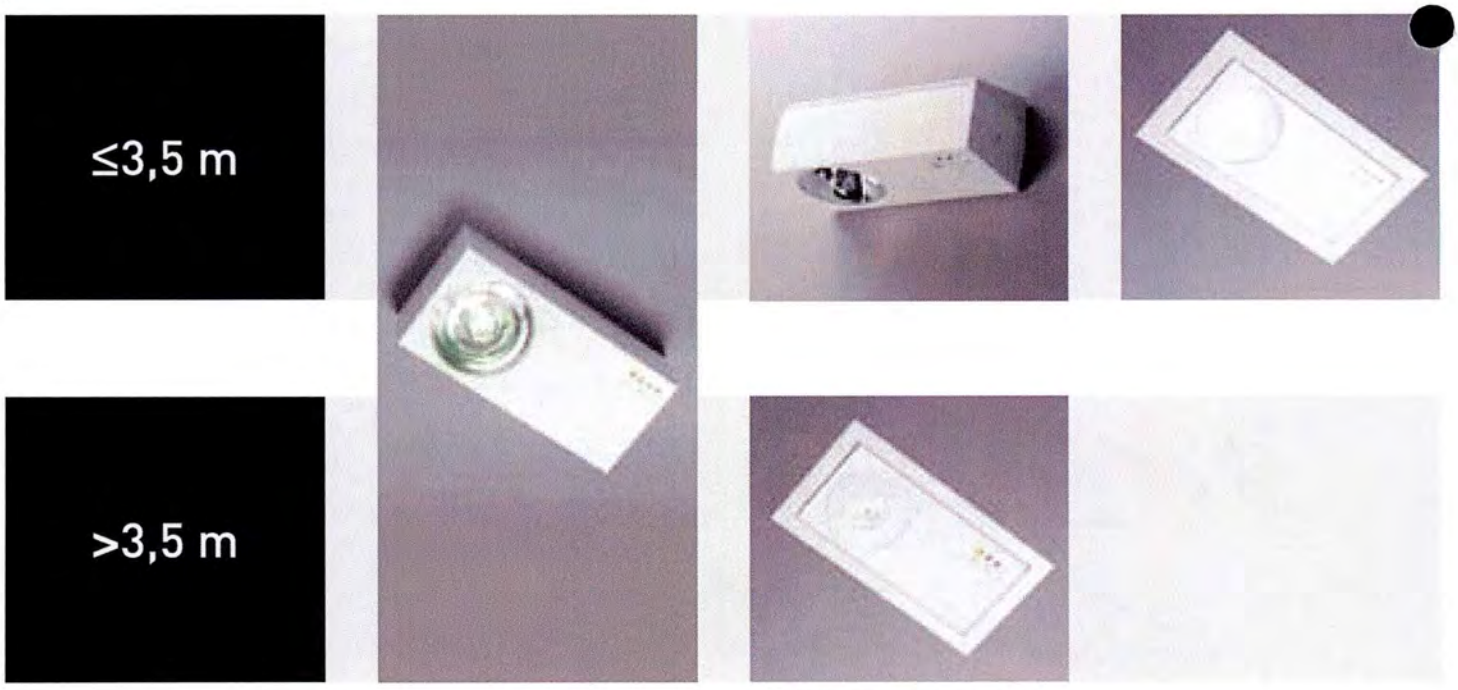
→ Mounting height → Anti-panic lighting → Escape route lighting → Comfort

Non-maintained
44 x 150 x 70 mm



also for stairway lighting (H: max. 3,5m)

Maintained
52 x 182 x 85 mm



also for stairway lighting (H: max. 3,5m)

Other combinations are possible, for more information consult our catalogue.

→ Wall

Single sided

Single or double sided

→ Ceiling

Single or double sided

Single or double sided

Single or double sided

The K7 series offers an adapted solution for every application. With this complete product range, you are provided with a single harmonised style in your projects and buildings.

- Luminaires for signage, escape route lighting, and anti-panic lighting
- Mounting solutions for all applications
- Self-contained (non-maintained or maintained) luminaires (equipped with a self test): available with ESM (ETAP Safety Manager), both wired or wireless
- Luminaires for central battery systems can be integrated in an ETAP Battery System (EBS).

Signage luminaires are available as an option with light spot or escape route module

K7

- LED technology
  - > Low maintenance cost
  - > Low energy consumption
- Well-thought-out light distribution, fewer luminaires
- Better sign visibility, increased safety
- Easy to mount and maintain
- "Upgradable" to ETAP Safety Manager
- Low ecological footprint
- Complete range

ETAP Lighting, U.K. Branch ■ Unit 6 ■ Windsor Business Centre ■ Vansittart Estate ■ Windsor ■ Berkshire SL4 1SE ■ UK
Tel. +44 (0)1753-829970 ■ Fax +44 (0)1753-859208 ■ enquiries@etaplighting.com

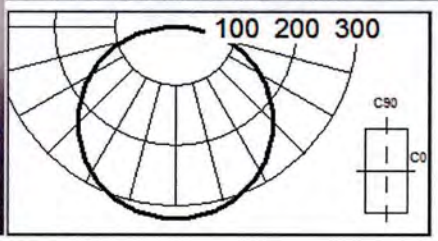
International Lighting Systems as ■ Drammensveien 130 (Inngang Verkstedveien) ■ 0277 Oslo ■ Norway
Tel. +47 (0)22 55 54 22 ■ Fax +47 (0)22 55 65 22 ■ firmapost@ils.no

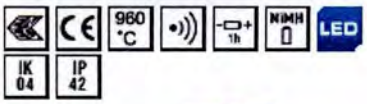
ETAP Export Department ■ Antwerpsesteenweg 130 ■ B-2390 Malle ■ Belgium
Tel. +32 (0)3 310 02 11 ■ Fax +32 (0)3 311 61 42 ■ export@etaplighting.com

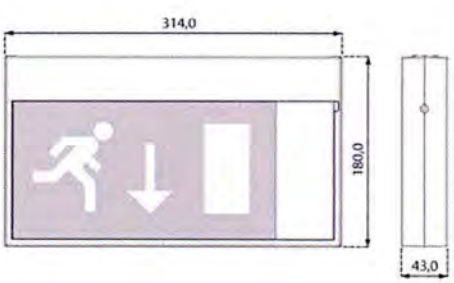
www.etaplighting.com

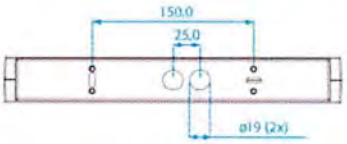
UK GREEN BUILDING COUNCIL

ETAP









K744/3P

Picto

surface mounted / recessed luminaire - light conductor - rectangular - RAL9003-white
housing of impact-resistant polycarbonate
singe and double sided signage
self-test/communication: ESM-RF ETAP Safety Manager - wireless
lumenoutput in emergency: 16 lm

Mechanical characteristics
dimensions: (LxWxH) 314 mm x 180 mm x 43 mm
weight: 1.3 kg

Optic
light conductor

Lamp
lamp type: LED - 1 x 3W

Battery
4 x NiMh 1,2V 1,25Ah
duration: 1 h

Electrical housing
voltage: 220-230V AC
frequency: 50-60Hz

Distance of recognition
26 m

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enquiries@etaplighting.com

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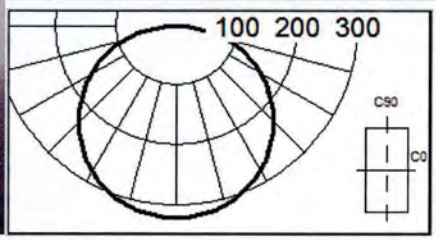
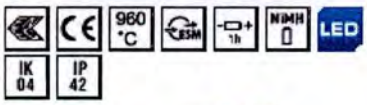
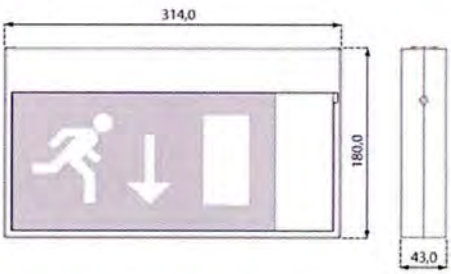
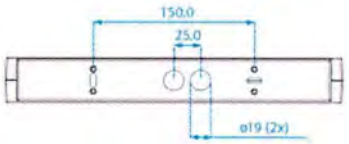








K743/3P

Picto

surface mounted / recessed luminaire - light conductor - rectangular - RAL9003-white
housing of impact-resistant polycarbonate
singe and double sided signage
self-test/communication: ESM ETAP Safety Manager - wired
lumenoutput in emergency: 16 lm

Mechanical characteristics

dimensions: (LxWxH) 314 mm x 180 mm x 43 mm
weight: 1.3 kg

Optic

light conductor

Lamp

lamp type: LED - 1 x 3W

Battery

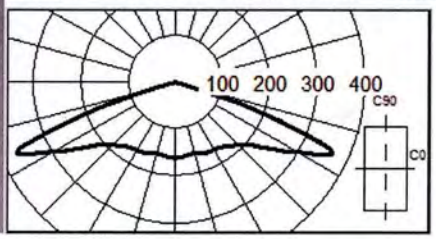
4 x NiMh 1,2V 1,25Ah
duration: 1 h

Electrical housing

voltage: 220-230V AC
frequency: 50-60Hz

Distance of recognition

26 m



960 °C | IK 04 | IP 42

K723/3N2

Nihil

surface mounted / recessed luminaire - lens - rectangular - RAL9003-white
housing of impact-resistant polycarbonate anti-panic
self-test/communication: ESM ETAP Safety Manager - wired
lumenoutput in emergency: 100 lm

Mechanical characteristics

dimensions: (LxWxH) 150 mm x 70 mm x 44 mm
weight: 0.3 kg

Optic

lens

Lamp

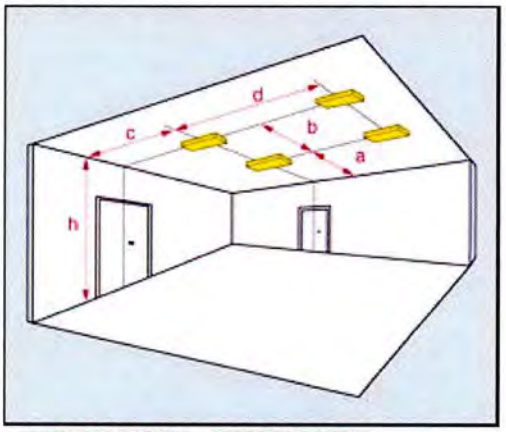
lamp type: LED - 1 x 3W

Battery

4 x NiMh 1,2V 1,25Ah
duration: 1 h

Electrical housing

voltage: 220-230V AC
frequency: 50-60Hz

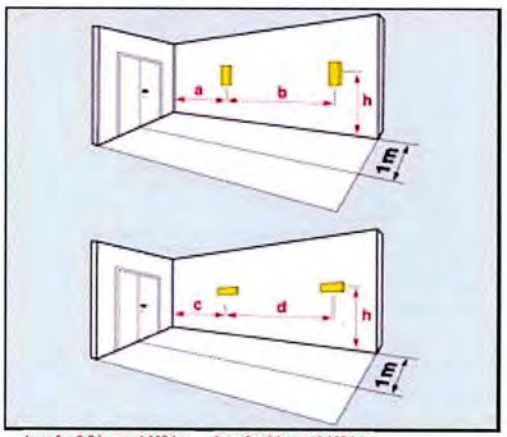


In m for 0.5 lux and 100 lm

h	a	b	c	d
2.8m	4.6	13.1	4.6	13.1
3.0m	4.4	13.3	4.4	13.3
3.5m	3.7	13.7	3.7	13.7
4.0m	3.3	12.9	3.3	12.9
4.5m	2.8	11.7	2.8	11.7
5.0m	2.2	10.4	2.2	10.4
5.5m	0.9	9.6	0.9	9.6
6.0m	-	8.6	-	8.6
6.5m	-	7.6	-	7.6
7.0m	-	5.4	-	5.4
7.5m	-	3.4	-	3.4
8.0m	-	-	-	-
8.5m	-	-	-	-
9.0m	-	-	-	-
9.5m	-	-	-	-

In m for 1 lux and 100 lm

h	a	b	c	d
2.8m	2.4	9.2	2.4	9.2
3.0m	2.2	8.8	2.2	8.8
3.5m	1.6	7.4	1.6	7.4
4.0m	0.2	6.6	0.2	6.6
4.5m	-	5.5	-	5.5
5.0m	-	3.6	-	3.6
5.5m	-	1.3	-	1.3
6.0m	-	-	-	-
6.5m	-	-	-	-
7.0m	-	-	-	-
7.5m	-	-	-	-
8.0m	-	-	-	-
8.5m	-	-	-	-
9.0m	-	-	-	-
9.5m	-	-	-	-



In m for 0.5 lux and 100 lm

h	a	b	c	d
1.5m	2.7	6.0	2.7	6.0
2.0m	2.5	5.7	2.5	5.7
2.5m	2.2	5.1	2.2	5.1
3.0m	1.6	4.2	1.6	4.2
3.5m	-	2.5	-	2.5
4.0m	-	-	-	-
4.5m	-	-	-	-
5.0m	-	-	-	-
5.5m	-	-	-	-
6.0m	-	-	-	-
6.5m	-	-	-	-

In m for 1 lux and 100 lm

h	a	b	c	d
1.5m	2.3	5.5	2.3	5.5
2.0m	2.1	5.1	2.1	5.1
2.5m	1.8	4.4	1.8	4.4
3.0m	0.9	3.1	0.9	3.1
3.5m	-	-	-	-
4.0m	-	-	-	-
4.5m	-	-	-	-
5.0m	-	-	-	-
5.5m	-	-	-	-
6.0m	-	-	-	-
6.5m	-	-	-	-

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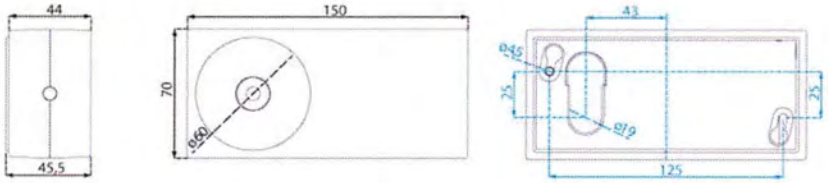
7.0m	-	-	-	-	7.0m	-	-	-	-
7.5m	-	-	-	-	7.5m	-	-	-	-
8.0m	-	-	-	-	8.0m	-	-	-	-
8.5m	-	-	-	-	8.5m	-	-	-	-



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Michael Williams
Trydan Electrical Ltd
118 Jickell St
Palmerston North
4410

INSTALLER DECLARATION STATEMENT

Issued To: McMillan & Lockwood

In Respect Of: Emergency Lighting and illuminated exit signs

At: 63 Ruataniwha St, Waipukurau

Date: 06/05/2016

Trydan Electrical has been contracted to McMillan & Lockwood to inspect and complete the Electrical Services for the above works.

I, Michael Williams, a duly authorized representative of Trydan Electrical believe on reasonable grounds that has carried out the Electrical Services Contract Works in accordance with the plans, specifications and directions of the principal in accordance with the contract.

This work is recorded on our Certificates of Compliance Nos. BNZ Waipuk

TESTING COMPLETED: YES

Installed to AS2293.1:2005

NZBC F6, F8, G9.

Authorised Agent: Michael Williams

Signature: 

Trydan Electrical Limited

PO Box 9042. Palmerston North
021 25 66 376 | 06 357 8762
trydanelectrical@gmail.com

BNZ Waipukurau

Emergency and illuminated test sheet

TEST LIGHTS EVERY 30 DAYS (30 SECOND TEST)

DATE TESTED	LIGHTS OPERATED	LIGHTS FAILED	DATE REPAIRED	SIGNATURE
26/4/16	PASS	—	—	

ANNUAL TEST (1.5 HOUR TEST)

DATE TESTED	LIGHTS OPERATED	LIGHTS FAILED	DATE REPAIRED	SIGNATURE

ELECTRICAL CERTIFICATE OF COMPLIANCE AND ELECTRICAL SAFETY CERTIFICATE

Reference/Certificate ID No: BNZ Waipuk

This form has been designed to be used by licensed electrical workers to certify that installations or Part installations under **Part 1 or Part 2 of AS/NZS 3000** are safe to be connected to the specified system of electrical supply.

Location Details: 63 Ruataniwha St, Waipukurau

Contact Details: (Name and address) McMillan & Lockwood, Tremaine Ave, Palmerston North

Name of Electrical worker: Michael Williams **Registration/Practising licence number:** E249420

Organisation/company: Trydan Electrical

Phone and email: 0212566376 / trydanelectrical@gmail.com

Name of person(s) supervised:

CoC

Type of work: Additions Alterations New work ✓

The prescribed electrical work is: Low risk General High risk (Specify): Mains

Reference Standards: Part 1 of AS/NZS 3000 Part 2 of AS/NZS 3000 ✓

Additional Standards:

Description of Work: (including date/s of work and type of supply system)

Install new mains cable 25mm 3 core NS, 6mm main earth, Wire and fit off Bnz bank as per electrical plan provided by OPUS.18/04/2016

I certify that the completed prescribed electrical work to which this Certificate of Compliance applies has been done lawfully and safely, and the information in the certificate is correct in that the installation, or part of the installation:

Select those that apply:

- ✓ Has been installed in accordance with the specified certified design[1]
- ✓ Has an earthing system that is correctly rated (where applicable)
- ✓ Contains fittings that are safe to connect to a power supply
- ✓ Relies on a supplier Declaration of Conformity[1]
- ✓ Relies on a manufacturer's instructions[1]
- ✓ Has been satisfactorily tested in accordance with the Electricity (Safety) Regulations 2010
- ✓ Is safe to connect

Test Results	
Polarity (Independent earth):	ok
Insulation resistance:	ok
Earth Continuity:	ok
Bonding:	ok
Fault Loop impedance	ok
Other (specify):	

Electronic/Other reference: www.Jarussell.co.nz

Certifier's signature:

Date: 18/04/2016

1 Attach or reference. If it is impractical to attach a copy of a particular manufacturer's instructions, or of any certified design or supplier declaration of conformity, provide a reference to where the documents can be found, in a readily accessible format, by electronic means.

ESC

I certify that the installation, or part of the installation, to which this Electrical Safety Certificate applies is connected to a power supply and is safe to use.

Certifier's name: Michael Williams **Registration/Practising licence number:** E249420

Certifier's signature:

Certificate Issue Date: 18/04/2016 **Connection Date:** 18/04/2016

CUSTOMER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED FOR A MINIMUM OF 7 YEARS

This certificate also confirms that the electrical work complies with the building code for the purposes of Section 19(1)(e) of the Building Act 2004.

Michael Williams
Trydan Electrical Ltd
118 Jickell St
Palmerston North
4410

INSTALLER DECLARATION STATEMENT

Issued To: McMillan & Lockwood

In Respect Of: Emergency Lighting

At: BNZ, 63 Ruataniwha St, Waipukurau

Date: 20/04/2016

Trydan Electrical has been contracted to McMillan & Lockwood to inspect and complete the Electrical Services for the above works.

I, Michael Williams, a duly authorized representative of Trydan Electrical believe on reasonable grounds that has carried out the Electrical Services Contract Works in accordance with the plans, specifications and directions of the principal in accordance with the contract.

This work is recorded on our Certificates of Compliance Nos. BNZ Waipuk

TESTING COMPLETED: YES

Installed to AS/NZS 2293.1:1995

Authorised Agent: Michael Williams

Signature: 

ELECTRICAL CERTIFICATE OF COMPLIANCE AND ELECTRICAL SAFETY CERTIFICATE

ELECTRICAL WORKERS REGISTRATION BOARD

Reference/Certificate ID No: 29496

This form has been designed to be used by licensed electrical workers to certify that installations or Part installations under Part 1 or Part 2 of AS/NZS 3000 are safe to be connected to the specified system of electrical supply.

Location Details: BNZ WAIPUKARAU

Contact Details: (Name and address)

Name of Electrical worker: PETER JONES. Registration/Practising licence number: E13479

Organisation/company: MAT TAR INDUSTRIAL

Phone and email: 06 350 1000.

Name of person(s) supervised:

COC

Type of work: ☐ Additions ☐ Alterations ☑ New work

The prescribed electrical work is: ☐ Low risk ☐ General ☐ High risk (Specify):

Reference Standards: ☐ Part 1 of AS/NZS 3000 ☐ Part 2 of AS/NZS 3000

☐ Additional Standards:

Description of Work: (including date/s of work and type of supply system)

INSTALL 3x FANS - 4 x SPLIT AC UNITS
1 3Ø HEATER BANK

I certify that the completed prescribed electrical work to which this Certificate of Compliance applies has been done lawfully and safely, and the information in the certificate is correct in that the installation, or part of the installation:

Select those that apply:

- ☑ Has been installed in accordance with the specified certified design[1]
- ☑ Has an earthing system that is correctly rated (where applicable)
- ☑ Contains fittings that are safe to connect to a power supply
- ☐ Relies on a supplier Declaration of Conformity[1]
- ☐ Relies on a manufacturer's instructions[1]
- ☑ Has been satisfactorily tested in accordance with the Electricity (Safety) Regulations 2010
- ☑ Is safe to connect

Test Results	
Polarity (Independent earth):	✓
Insulation resistance:	✓
Earth Continuity:	✓
Bonding:	✓
Fault Loop impedance	✓
Other (specify):	

Electronic/Other reference:

Certifier's signature:

Date: 20/4/2016

1 Attach or reference. If it is impractical to attach a copy of a particular manufacturer's instructions, or of any certified design or supplier declaration of conformity, provide a reference to where the documents can be found, in a readily accessible format, by electronic means.

ESC

I certify that the installation, or part of the installation, to which this Electrical Safety Certificate applies is connected to a power supply and is safe to use.

Certifier's name:

Registration/Practising licence number:

Certifier's signature:

Certificate Issue Date:

Connection Date:

ER 04/06/14 This certificate also confirms that the electrical work complies with the building code for the purposes of Section 19(1)(e) of the Building Act 2004.

CUSTOMER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE KEPT FOR A MINIMUM OF 7 YEARS

CERTIFIER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE KEPT FOR A MINIMUM OF 7 YEARS

Sensormatic
Automatic Doors Ltd
Agents for Sensormatic Automatic Doors

COMMERCIAL DOOR SERVICES

COMMERCIAL DOOR SERVICES LTD
Wellington Branch
New Zealand
Phone / Fax: 04 589 0381

To: Twin City Aluminium

From: Marc Geerlings

Attention: Paul

Date: 5th May 2016

Email: twincityaluminium@xtra.co.nz

Number of Pages: **1**

Producer Statement for:
Automatic Door Operator @ BNZ, 44 Ruataniwha St, Waipukurau.

As the manufacturer of Sensormatic Automatic doors, we certify that the doors have a failsafe system fitted and comply too NZS 4239.1993 for Automatic Sliding Doors and to the requirements of the NZ building code (Means of Escape 3.17).

Doors to drive fully open automatically on power failure / fire alarm (integration by others) Failsafe consists of a 12 v DC battery & control board also incorporating battery charger. Doors automatically return to original function mode when power resumes or fire signal deactivated

The doors should be listed on the buildings Compliance schedule under SS3/1.

In order to maintain compliance to NZS 4239.1993 they will then require 4 monthly maintenance service checks by a registered IQP / LBP to ensure ongoing compliance and safety.

If all the maintenance and inspections have been carried out to NZS 4239.1993 requirements in the preceding 12 months then a 12a certificate can be issued by the registered IQP who has carried out the work.

Regards

Marc Geerlings
Wellington Regional Manager
Commercial Door Services
Mobile 021 724 479
marc@cid.co.nz

Schedule 6 – Form of Producer Statement – Construction

ISSUED BY	**Artisan Cladding Systems Ltd**	*(Contractor)*
TO	**McMillan & Lockwood PN Ltd**	*(Principal)*
IN RESPECT OF	**Aluminium Composite Cladding**	*(Description of Contract Works)*
AT	**BNZ Development, 63 Ruataniwha Street, Waipukurau**	*(Address)*

Artisan Cladding Systems Ltd *(Contractor)* has contracted to **McMillan & Lockwood** *(Principal)* to carry out and complete certain building works in accordance with a Contract titled **BNZ, Waipukurau** ('the Contract')

I **Jeremy McKillop** *(Duly Authorised Agent)* a duly authorised representative of ***Artisan Cladding Systems Ltd*** *(Contractor)* believe on reasonable grounds that ***Artisan Cladding Systems Ltd*** *(Contractor)* has carried out and completed:

☒ All

☐ Part only as specified in the attached particulars of the contract works in accordance with the Contract

Click to enter details of attached particulars

Jeremy Mckillop Date **20 April 2016**

(Signature of Authorised Agent on behalf of)

Artisan Cladding Systems Ltd

(Contractor)

445 Rangitikei St, Palmerston North

(Address)

Building Code Clause(s).....B1.....

PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

(Guidance notes on the use of this form are printed on page 2)

ISSUED BY: OPUS INTERNATIONAL CONSULTANTS.....
(Construction Review Firm)

TO: BNZ.....
(Owner/Developer)

TO BE SUPPLIED TO: ...CENTRAL HAWKES BAY DISTRICT COUNCIL .....
(Building Consent Authority)

IN RESPECT OF: .....NEW BANK BUILDING.....
(Description of Building Work)

AT: .....63 RUATANIWHA STREET, WAIPUKURAU.....
(Address)
..... **LOT**..... **DP** ..... **SO** .....

OPUS INTERNATIONAL.has been engaged by.....BNZ.....
(Construction Review Firm)
To provide☐CM1☒CM2☐CM3☐CM4☐CM5*(Engineering Categories)* or ☐ observation as per agreement with owner/developer

or ☐other .....services
(Extent of Engagement)
in respect of clause(s) .....B1..... of the Building Code for the building work described in documents relating to Building Consent No. 150036..... and those relating to Building Consent Amendment(s) Nos. .....issued during the course of the works. We have sighted these Building Consents and the conditions of attached to them.

Authorised instructions / variations(s) No. ..... (copies attached) or by the attached Schedule ☐ have been issued during the course of the works.

On by the basis of ☒this ☐these review(s) and information supplied by the contractor during the course of the works and **on behalf of the firm** undertaking this Construction Review, **I believe on reasonable grounds** that ☒All ☐Part only of the building works have been completed in accordance with the relevant requirements of the Building Consent and Building Consent Amendments identified above, with respect to Clause(s) ...B1.....of the Building Code.

I also believe on reasonable grounds that the persons who have undertaken this construction review have the necessary competency to do so.

I, ...JOHN NEWALL..... .....am:
(Name of Construction Review Professional)

☒CPEng No. ...1018146.....

☐Reg Arch No. .....

I am a Member of : ☒IPENZ ☐NZIA and hold the following qualifications: BE(HONS).....

The Construction Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than $200,000*.

The Construction Review Firm is a member of ACENZ : ☒

SIGNED BY ..... JOHN NEWALL ..... **ON BEHALF OF** ...OPUS INTERNATIONAL CONSULTANTS ...

Date:... .....21/04/2016..... Signature:..... .....

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of $200,000.*

This form is to accompany **Forms 6 or 8 of the Building (Form) Regulations 2004** for the issue of a Code Compliance Certificate.

HOMA
PUMP TECHNOLOGY

Compact sewage disposal unit with integrated swing check valve.

Sanistar

Application

HOMA Sanistar are compact sewage disposal units. They are suitable for pumping sewage and waste water from toilets, hand basins, showers and rooms which are below the sewer level. Even if there is a natural fall, if the sewer is flooded, the sewage is unable to drain. In this case, Sanistar will prevent a back up and flooding of the room.
HOMA Sanistar are the ideal solution for new constructions or renovation of old constructions.
They are used for applications in:

- ☐ basement rooms
- ☐ sanitary facilities in cellar rooms
- ☐ sanitary facilities in restaurants, hotels,cinemas, theatres, shopping centres, schools and hospitals.

DIN EN 12050-1: Conformity and design approved and controlled by LGA, certificate No. 0220119.

Pumped liquid: Clear water or drainage water, waste water or sewage containing soft solids. Max. liquid temperature: 35°C, short term up to 60°C.

Operation: Intermittent.

Design

Flood protected single or twin pump lifting station consisting of:

Collecting tank: Odour and gas tight plastic collecting tank.
Inlets:

- ☐ DN 100 horizontal, 180 mm height
- ☐ DN 100 horizontal, 250 mm height
- ☐ DN 100 vertical
- ☐ DN 150 horizontal and vertical
- ☐ DN 40 vertical.

Discharge: Flange DN 80. Flexible union piece DN 80/DN 100.With integrated soft ball check valve.
Air vent: DN 70 vertical.
Connection for diaphragm pump: BSP 1" F.
Cleaning cover with screw cap.

Pump: Pump chamber integrated in the collecting tank. Non clogging impeller, sphercial clearance 45 mm.

Motor: Fully submersible, pressure tight electric motor, 1Ph or 3Ph. Thermal sensors embedded in the winding. Insulation class F. Degree of protection IP 68. Stainless steel rotor shaft, prelubricated bearings.

Seals: Triple lip seal combination in separate oil chamber. Oil inspection from outside.

Explosion protection: All models are available with explosion proof motors according to ⟨Ex⟩ II 2 G EEx d [ib] IIBT4.

Materials:

Collecting tank with pump housing	Polyethylene
Impeller, pump flange	Cast iron GG 25/EN-GJL-250
Rotor shaft, screws	Stainless steel
Seal kit	Perbonane

Technical Data

Curve No.	Type		No. of Pumps	Motor input P_1(kW)	Motor output P_2(kW)	Voltage 50 Hz (V)	Speed (rpm)	Nominal current (A)	Weight (kg)	Collection tank Total volume	Operating volume
①	**Sanistar**	**105 W**	1	1,6	1,1	230/1Ph	2900	7,0	64	70 l	30 l
①		**105 D**	1	1,5	1,1	400/3Ph	2900	2,5	64	70 l	30 l
②		**110 W**	1	1,7	1,3	230/1Ph	1450	7,1	66	70 l	30 l
②		**110 D**	1	1,5	1,1	400/3Ph	1450	3,1	66	70 l	30 l
③		**120 W**	1	2,3	1,7	230/1Ph	1450	10,7	73	70 l	30 l
③		**120 D**	1	2,3	1,7	400/3Ph	1450	4,4	73	70 l	30 l
④		**130 D**	1	3,0	2,1	400/3Ph	2900	5,1	73	70 l	30 l
①	**Sanistar**	**205 W**	2	1,6	1,1	230/1Ph	2900	7,0	92	95 l	45 l
①		**205 D**	2	1,5	1,1	400/3Ph	2900	2,5	92	95 l	45 l
②		**210 W**	2	1,7	1,3	230/1Ph	1450	7,1	96	95 l	45 l
②		**210 D**	2	1,5	1,1	400/3Ph	1450	3,1	96	95 l	45 l
③		**220 W**	2	2,3	1,7	230/1Ph	1450	10,7	110	95 l	45 l
③		**220 D**	2	2,3	1,7	400/3Ph	1450	4,4	110	95 l	45 l
④		**230 D**	2	3,0	2,1	400/3Ph	2900	5,1	110	95 l	45 l

The types Sanistar 210 to 230 are also available with 1 pump to allow a later installation of the second pump.

Inlets: DN 100 (3 x), DN 150 (2 x), DN 40
Discharge: Flange DN 80
EU piece DN 80/ DN100
Air vent: DN 70
Connection for diaphragm pump: BSP 1" F

Cable	Type	Length
Unit-control box	H07 RN-F7G 1,5	3 m
Control box-plug	H07 RN-F5G 1,5	0,8 m

Control box

Pneumatic level control with pressure operation. Motor over run period which prevents sewage build up and blockage. Electronic control box for control and monitoring of all important functions. Motor protection with temperature control of the winding. Optical failure alarm. Acoustic alarm by buzzer. Volt free contact for remote signal. Control indication for direction of rotation. Connection for ServCom controller (see accessories) for:

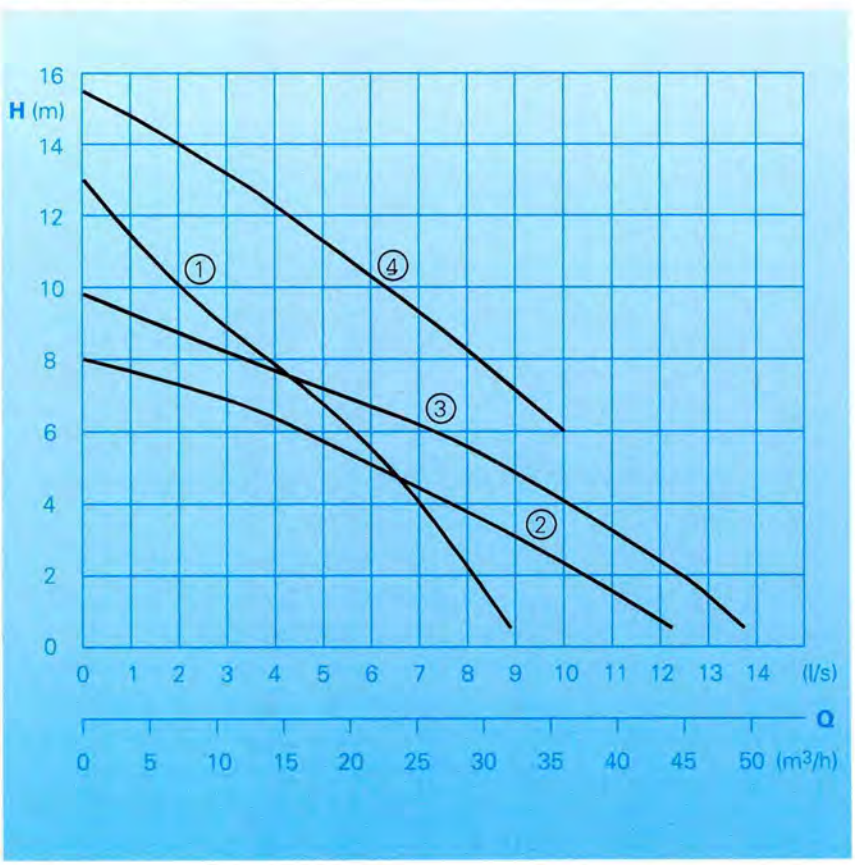
– Monitoring of operation hours, number of starts, maintenance interval, unnormal operating conditions.
– Adjustment of pump operation level in the tank.
Mains-independent alarm by installing a 9 V battery (see accessories).

Available with control box HCON on request (see accessories).

Additional for twin pump station:

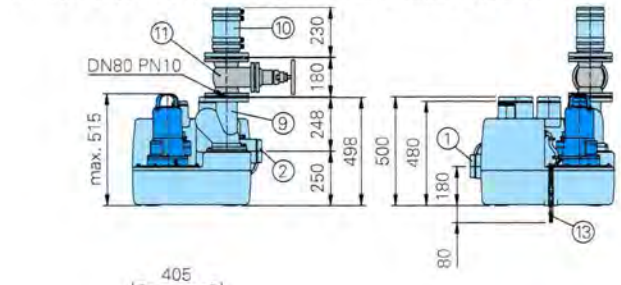
Auto-change over after each pump cycle. Operation of both pumps at high flow. In the event of failure automatic change over to the second pump.

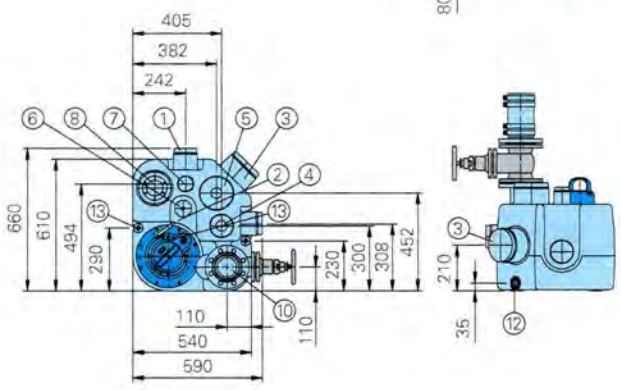
Performances



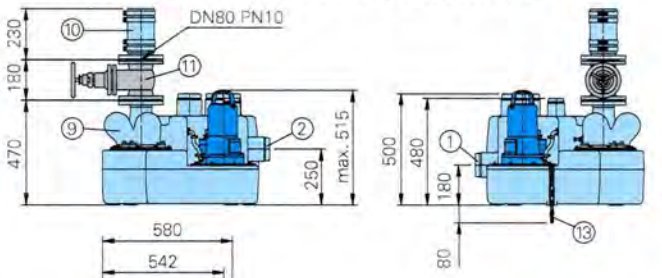
Dimensions and main components

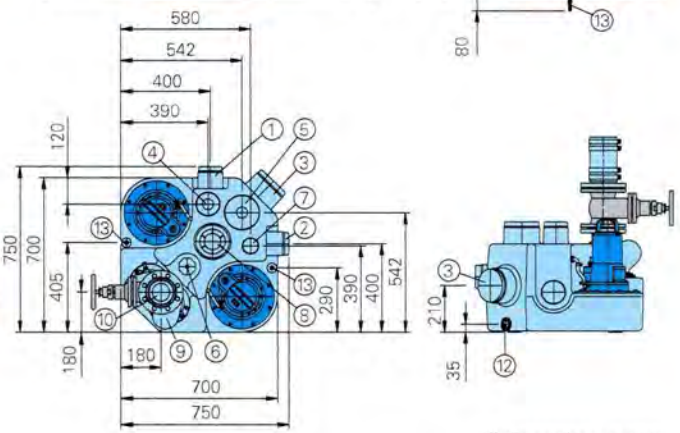
Sanistar 105, 110, 120, 130 (single pump lifting station)





Sanistar 205, 210, 220, 230 (twin pump lifting station)



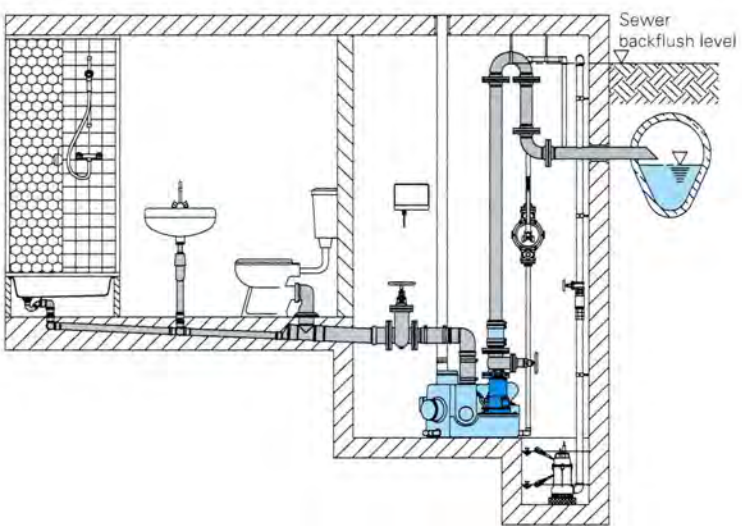


all dimensions in mm

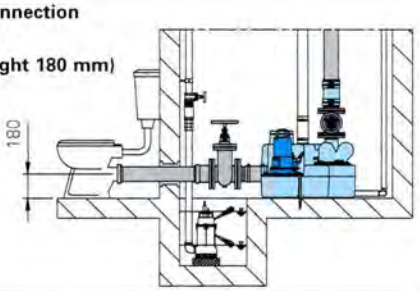
① Horizontal inlet DN 100
② Horizontal inlet DN 100
③ Horizontal inlet DN 150
④ Vertical inlet DN 100/DN 40
⑤ Vertical inlet DN 150/DN 40
⑥ Connection for pneumatic control box
⑦ Air vent DN 70
⑧ Cleaning cover
⑨ Soft ball check valve DN 80
⑩ Elastic union piece
⑪ Flanged gate valve DN 80
⑫ Connection for diaphragm pump BSP 1"
⑬ Tank fixing point

Installations

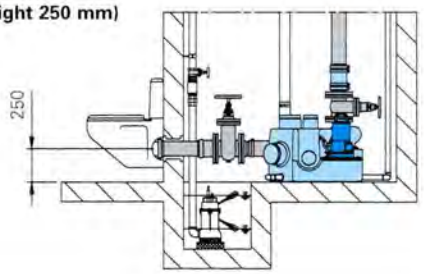
Main inlet
vertical



Direct connection
Euro WC
(Inlet height 180 mm)



Direct connection
Free standing WC
(Inlet height 250 mm)

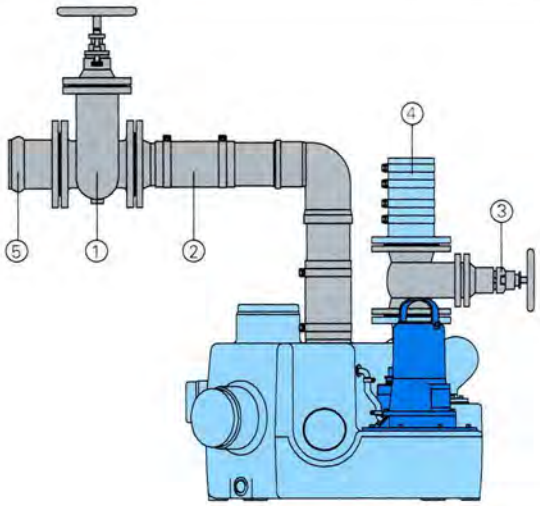


Equipment supplied

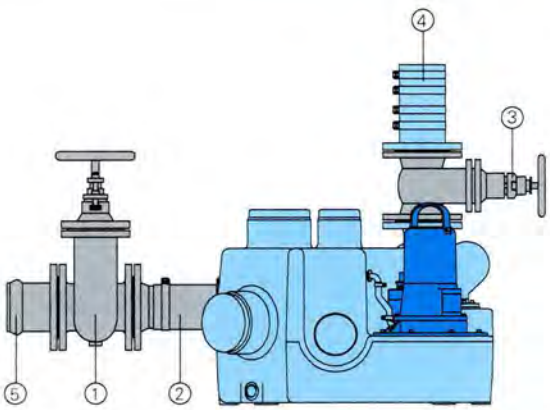
Tank with 1 pump (Sanistar 1...) or 2 pumps (Sanistar 2...), discharge with DN 80 soft ball check valve and flanged elastic union piece DN 80/DN 100 with hose bands. Elastic union piece for inlet DN 100 and air vent DN 70 with hose bands. Pneumatic level control. Electronic control box with cable.

Accessories

Vertical inlet



Horizontal inlet



Part Description	Dimension	Part No.
① Flanged gate valve with gasket and fixing bolts	DN 100 DN 150	2216100 2216150
② Flanged elastic union piece	DN 100 DN 150	2159041 2159541
○ Hose band	S115/20 GBS 168/30	2311520 2317520
③ Flanged gate valve with gasket and fixing bolts	DN 80	2216080

Part Description	Dimension	Part No.
④ Flanged elastic union piece, DN 80 for discharge pipe	DN 100 DN 80	Equipment supplied 2159021
⑤ EKS-Flanged socket	DN 100 DN 150	2158010 2158015
○ Diaphragm pump	BSP 1" F	8502445
○ Battery 9 V for mains-independent alarm		1952214
○ ServCom controller for monitoring of operation data and adjustment of the control levels in the tank		1964450

HOMA PUMP TECHNOLOGY

HOMA Pumpenfabrik GmbH
P.O.Box 22 63, D-53814 Neunk.-Seelscheid
Tel. +49 (0) 22 47 / 702-0, Fax +49 (0) 22 47 / 702-44
e-mail: info@homa-pumpen.de
www.homapumps.com

3.0/1209 (ST) 001 jes / Nr. 0034041 EN

SANISTAR 205 W

Compact twin pump sewage disposal unit with Integrated swing check valve

APPLICATION

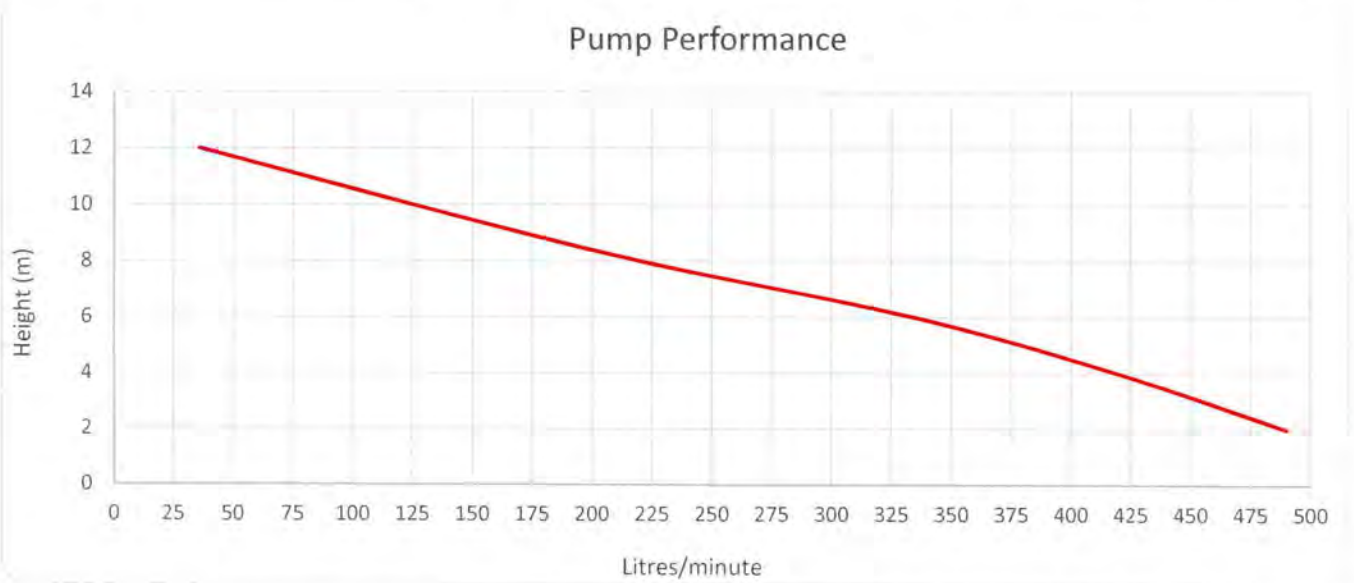
Sanistar is suitable for pumping sewage and waste water from toilets, hand basins, showers and from rooms which are below the sewer level. Even if there is natural fall if the sewer is flooded Sanistar will prevent a back up and flooding of the room. Applications include basement rooms or car parks, sanitary facilities in restaurants, hotels, shopping centres, schools and hospitals.

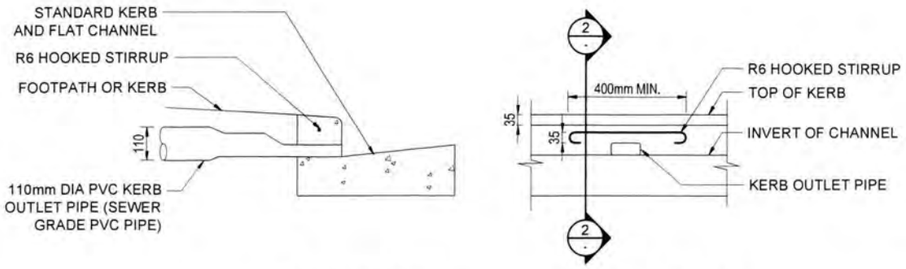
DESIGN FEATURES

- Flood protected pump station
- Odour and gas tight plastic collecting tank
- Flexible union with integrated soft ball check valve
- Non clogging impeller
- Fully submersible, pressure tight electric motors
- Thermal sensors embedded within windings
- Large diameter stainless steel rotor shaft, pre-lubricated bearings
- Combination of mechanical seal (silicon carbide) and lip seal in oil chamber
- Electronic control box for controlling and monitoring all important functions and advising any problems

TECHNICAL DATA

Motor Input (kW)	1.6	Tank Inlets (mm)	100 (x3), 150 (x2), 40 (1)
Motor Output (kW)	1.1	Total Volume	95 litres
Voltage 50Hz (V)	230-240 / 1 phase	Operating Volume	45 litres
Speed (rpm)	2900	Discharge Flange	80mm
Nominal Current (A)	7.0	Air Vent Size	70mm
Weight (kg)	92	Max Head Height	10m
Dimensions	Length 750mm	Width 750mm	Height 515mm

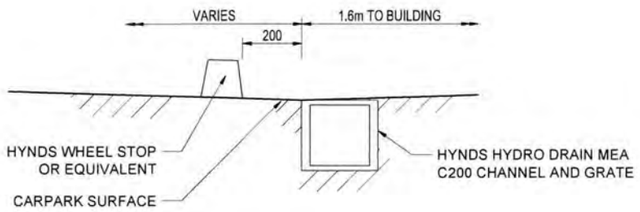




2 SECTION
Scale: 1:10(A1)

FRONT ELEVATION
SCALE 1:10 @ A1

KERB OUTLET
SCALE 1:10 @ A1



1 SECTION
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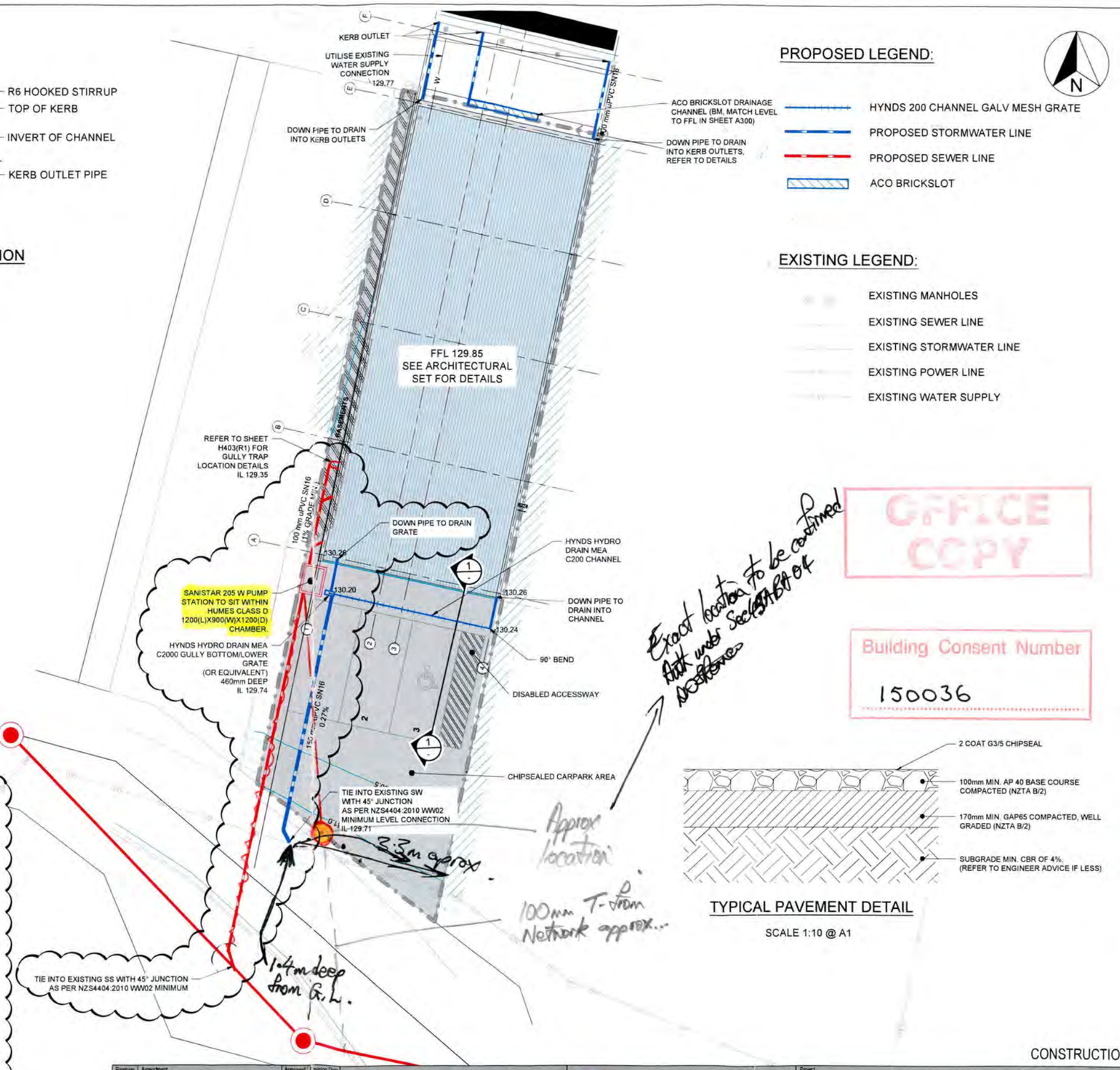


PROPOSED LEGEND:

- HYNDS 200 CHANNEL GALV MESH GRATE
- PROPOSED STORMWATER LINE
- PROPOSED SEWER LINE
- ACO BRICKSLOT

EXISTING LEGEND:

- EXISTING MANHOLES
- EXISTING SEWER LINE
- EXISTING STORMWATER LINE
- EXISTING POWER LINE
- EXISTING WATER SUPPLY

TYPICAL PAVEMENT DETAIL
SCALE 1:10 @ A1

OFFICE COPY

Building Consent Number
150036

NOTES:

1) PIPES HAVING LESS THAN 800mm COVER ARE TO BE CONCRETE CAPPED.
2) CONTRACTOR TO LOCATE AND IDENTIFY ALL SERVICES PRIOR TO EXCAVATION AND PROTECT THROUGHOUT CONSTRUCTION.
3) ANY DISCREPANCY BETWEEN THE DETAILS SHOWN ON THIS DRAWING AND CONDITIONS ON SITE ARE TO BE NOTIFIED TO THE ENGINEER IMMEDIATELY.
4) ALL LEVELS ARE IN TERMS OF LINZ DATUM.
5) THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE STRUCTURAL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS
6) IF SUBGRADE CBR ≥ 4% NO UNDERCUT IS REQUIRED.
7) IF SUBGRADE CBR < 4%, BUT > 2%, UNDERCUT 170MM, PLACE BIDIM A29 GEOTEXTILE ON EXPOSED SUBGRADE AND PLACE/COMPACT 170MM GAP 65.
8) IF SUBGRADE CBR < 2%, CONTACT THE DESIGNER.
9) FOR PROPERTY CONNECTIONS REFER TO NZS4404: 2010 WW - 002
10) THE EXACT LOCATION OF THE PUMP STATION AND CHAMBER TO BE FINALISED ON SITE IN CONSULTATION WITH THE ENGINEER.
11) THE CONTRACTOR TO ENSURE THE CHAMBER IS CONSTRUCTED WITHIN THE SITE BOUNDARY.
12) THE LOCATION OF THE CONTROL PANEL AND THE SOURCE OF POWER SUPPLY TO BE FINALISED ON SITE IN CONSULTATION WITH THE ENGINEER.
13) CONTRACTOR TO FINALISE THE CONNECTION TO THE COUNCIL SEWER ON SITE IN CONSULTATION WITH THE ENGINEER.
14) THE CONTRACTOR NEEDS TO INSTALL A REDUCER TO SUITE THE DN 63mm OUTLET PIPE INSTALLED.

Revision	Amendment	Approved	Revision Date
1	ISSUED FOR CONSENT AND TENDER	T.W.	13.11.2014
2	MH CONNECTIONS REVISED TO JUNCTIONS	T.W.	26.02.2015
3	SERVICES, CARPARK AMENDED & DETAILS ADDED	T.W.	02.06.2015
4	ISSUED FOR CONSTRUCTION	T.W.	21.08.2015
5	SEWER CONNCETION UPDATED	S. K.	04.04.2016

Bank of New Zealand

OPUS
Auckland Office
+64 9 355 9500
PO Box 5844
Auckland 1141
New Zealand

Designed	Approved	Approved Date
S.S / M.R.	T. WILSON	13.11.2014
Drawn	Scales	
M. ROMIC	1:100@A1	

CONSTRUCTION

Project
BNZ
63 RUATANIWHA STREET
WAIPUKURAU

Sheet
CIVIL WORKS
LAYOUT AND DETAILS

Project No.	Sheet No.	Revision
4-M0633	C001	5

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m

Original Sheet Size A1 [841x594] Plot Date 2016-04-04 at 4:19:34 PM Path K:\Other_Clients\BNZ\4-M0633\710414-M0633_C001.dwg C001

Nigel Moore

From: Peter Eastwood
Sent: Wednesday, 13 April 2016 8:37 a.m.
To: Nigel Moore
Cc: Karen Bothwell; Richard Clifton
Subject: BNZ Building BC150036

Hi Nigel

I have discussed the request to pump the wastewater from the new BNZ building into the Council main in the south services lane.

Council consent to the pumped connection to the main subject to the following conditions:-

1. That the discharge from the pumped pipe discharges in the direction of flow in the main.
2. That the pumped pipe DOES NOT obstruct the existing main in any way.
3. That the connection must be sealed and not allow any infiltration of ground water.
4. That the connection to the main is inspected by Council Staff.
5. Alternatively the pumped line can be discharged into the downstream manhole. But again this must not obstruct the manhole in any way and must be inspected by Council Staff. Also the existing connection must be sealed to Council satisfaction.

Regards

Peter

--
Peter F. Eastwood Senior Civil Engineer
Central Hawke's Bay District Council
28-32 Ruataniwha Street, Waipawa 4210 | PO Box 127, WAIPAWA 4240
Phone 06 8578060 | Fax 06 8577179
Email: peter.eastwood@chbdc.govt.nz | Web: www.chbdc.govt.nz

Richard Clifton

From: Nick Jones <njones@rcp.co.nz>
Sent: Tuesday, 5 April 2016 3:53 p.m.
To: Richard Clifton
Cc: Daryl Horn; 'Scott_kuegler@bnz.co.nz'; 'Callum Bryson'
Subject: FW: BNZ Waipukurau Sewer Pump Details Amendment
Attachments: 4-M0633_C001-C001.pdf; 6 Sanistar 205W.PDF; Sanistar_GB.PDF

Hi Richard,
Further to my earlier email please find attached revised sewer connection details to overcome location of service road water main.
Please advise if CHBDC have any concerns or queries with this revised scheme.

Regards,
Nick.

Nick Jones
Senior Project Manager
M 021 907 754

RCP

Resource Co-ordination PartnershipLtd (trading as RCP)
Level 5, The Old Woolhouse,
139 - 141 Featherston St,
Wellington
PO Box 5667, Lambton Quay, Wellington, 6145, New Zealand
T +64 4 473 1850, F +64 4 473 0154, W www.rcp.co.nz

3.6 Diameter of drains

3.6.1 The *diameter* of a *drain* shall not decrease in size in the direction of flow.

3.6.2 *Drains* shall have a *diameter* of not less than 100 mm, except that 80 mm is acceptable where the *drain* serves only *waste water fixtures.*

3.6.3 *Diameters* and gradients of *drains* shall be no less than those given in Table 2 for the calculated *discharge unit* loading determined from Table 2 of Acceptable Solution G13/AS1 "Sanitary Plumbing".

4.0 Drain Ventilation

4.1 Ventilation requirements

4.1.1 The drainage system shall be ventilated to allow a flow of air and to minimise the build up of foul air.

4.1.2 Every main *drain*, and every branch *drain* longer than 10 m, shall be ventilated in accordance with Table 3.

4.1.3 Ventilation shall be provided by a *drain vent pipe* located so that the length of *drain* upstream of the *drain* vent connection is less than 10 m (see Figure 5).

4.1.4 To allow for regular flushing of the *drain* vent connection, it shall be located downstream of, but not more than 10 m, from the discharge connection closest to the head of the *drain* (see Figures 5 (a) and 6).

COMMENT:
The head of the *drain* is that point on the drainage system that is the furthermost from the *outfall.*

4.1.5 Any open *discharge stack vent* that is located within 10 m from the head of the *drain* may be used as a *drain* vent (see Figure 5 (b)).

4.2 Diameter of drain vent pipe

4.2.1 A main *drain* vent shall have a minimum *diameter* of 80 mm, and shall comply with termination requirements of Paragraph 5.7.3 of G13/AS1 "Sanitary Plumbing".

4.2.2 Branch *drain* vents shall be sized in accordance with Table 6 in G13/AS1.

5.0 Installation

5.1 Jointing

5.1.1 Rigid pipes shall have flexible joints to resist damage from differential settlement.

5.1.2 Jointing for PVC-U pipes and fittings shall be in accordance with the methods described in AS/NZS 2032.

Amend 3 Sep 2010

Amend 3 Sep 2010

5.2 Construction

5.2.1 *Drains* shall be constructed to withstand the combination and frequency of loads likely to be placed upon them without collapse, undue damage or undue deflection (see Figure 7). In addition, *adequate* support needs to be provided to prevent gradients becoming less than those required by Table 2 as a result of:

a) Differential settlement, or

b) Deflection of an unsupported span.

5.2.2 Where *drains* are laid at gradients of 1:80 or less, verifiable levelling devices shall be used to ensure uniform and accurate gradients.

COMMENT:
Laser and dumpy levels are recommended devices.

5.3 Construction methods

5.3.1 Figure 7 gives acceptable methods for the bedding and backfilling of the drainage pipes listed in Table 1 except where:

a) The trench is located within or above peat,

b) Scouring of the trench is likely due to unstable soils,

c) The horizontal separation between any *building* foundation and the underside of the pipe trench is less than that required by Paragraph 5.7.1, or

d) The cover H to the pipe is more than 2.5 m.

Nigel Moore

To: njones@rcp.co.nz
Cc: Callum Bryson (callum.b@mlgroup.co.nz)
Subject: FW: BNZ Building BC150036

Hi Nick,

Richard is away on holiday so I have processed variation. Revised sewer details passed as a minor variation under section 45 (a) of Building Act 2004. Attached is some conditions with the connection to the main to be inspected by Council staff. Please ring for this inspection. Have a happy day.

Regards,

Nigel.

Nigel Moore Building Control Officer
Central Hawke's Bay District Council
28-32 Ruataniwha Street, Waipawa 4210 | P O Box 127, Waipawa 4240
Ph: 06 857 8060 | Mobile: 027 5223895 | Fax: 06 857 7720
Email: mailto:nigel.moore@chbdc.govt.nz| Web: www.chbdc.govt.nz

---

From: Peter Eastwood
Sent: Wednesday, 13 April 2016 8:37 a.m.
To: Nigel Moore
Cc: Karen Bothwell; Richard Clifton
Subject: BNZ Building BC150036

Hi Nigel

I have discussed the request to pump the wastewater from the new BNZ building into the Council main in the south services lane.

Council consent to the pumped connection to the main subject to the following conditions:-

1. That the discharge from the pumped pipe discharges in the direction of flow in the main.
2. That the pumped pipe DOES NOT obstruct the existing main in any way.
3. That the connection must be sealed and not allow any infiltration of ground water.
4. That the connection to the main is inspected by Council Staff.
5. Alternatively the pumped line can be discharged into the downstream manhole. But again this must not obstruct the manhole in any way and must be inspected by Council Staff. Also the existing connection must be sealed to Council satisfaction.

Regards

Peter

Peter F. Eastwood Senior Civil Engineer
Central Hawke's Bay District Council
28-32 Ruataniwha Street, Waipawa 4210 | PO Box 127, WAIPAWA 4240
Phone 06 8578060 | Fax 06 8577179

BC 150036

BNZ

MINOR VARIATION –

REVISED SEWER CONNECTION DETAILS FROM SHEET C002 REVISION 3 / CONSENTED.

SANISTAR 205 COMPACT SEWAGE DISPOSAL UNIT PUMP STATION & CHAMBER TO BE INSTALLED.

TWIN PUMP WITH INTEGRATED SWING CHECK VALVE WITH FLOOD PROTECTED PUMP STATION.

HUMES CLASS D 1.2m L x 900 W x 1.2m DEEP CHAMBER CONSTRUCTED WITHIN THE SITE BOUNDARY.

100mm U/PVC MIN FALL 1% = 1 in 100 RATIO

G13/AS2 TABLE 2 DRAIN DISCHARGE UNIT LOADING & MINIMUM GRADIENTS.

WITHIN SHADED AREA = SEE PARAGRAPH 5.2.2 =

WHERE DRAINS ARE LAID AT GRADIENTS OF 1:80 OR LESS VERIFIABLE LEVELING DEVICES SHALL BE USED TO ENSURE UNIFORM & ACCURATE GRADIENTS.

(COMMENT: LAZER & DUMPY LEVELS ARE RECOMMENDED DEVICES.)

* COUNCIL CONDITIONS SUPPLIED WITH CONNECTION TO MAIN INSPECTED BY COUNCIL STAFF.

I AM SORE THE OBJECTIVE, FUNCTIONAL & PERFORMANCE REQUIREMENTS OF G13 HAVE BEEN MET AND INFORMATION RECEIVED IS ACCEPTABLE UNDER THE RELEVANT NZ BUILDING CODE CLAUSES AND PASSED AS A MINOR VARIATION UNDER SECTION 45(a) OF BA'04. MMoore

MINOR

VARIATION

DATE: 12/04/16

SEWAGE DISPOSAL UNIT PUMP STATION

NOTE: WITH HUMES CHAMBER CONSTRUCTED WITHIN SITE BOUNDARY. PASSED AS A MINOR VARIATION UNDER SECTION 45(a) OF BA'04. MMoore.

Building Code Clause(s) B1

PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW

(Guidance notes on the use of this form are printed on page 2)

ISSUED BY: Opus International Consultants
(Construction Review Firm)

TO: BNZ
(Owner/Developer)

TO BE SUPPLIED TO: Central Hawke's Bay District Council
(Building Consent Authority)

IN RESPECT OF: New wall, pier, gutter to adjacent building
(Description of Building Work)

AT: 61 Ruataniwha Street, Waipukurau
(Address)

LOT ..... **DP** ..... **SO** .....

Opus International has been engaged by BNZ
(Construction Review Firm)

To provide ☐CM1 ☐CM2 ☐CM3 ☐CM4 ☐CM5 *(Engineering Categories)* or ☑ observation as per agreement with owner/developer

or ☐ other .....services
(Extent of Engagement)

in respect of clause(s) B1 of the Building Code for the building work described in documents relating to Building Consent No. 150037 and those relating to Building Consent Amendment(s) Nos. .....issued during the course of the works. We have sighted these Building Consents and the conditions of attached to them.

Authorised instructions / variations(s) No. SITE INSTRUCTIONS ATTACHED (copies attached)

or by the attached Schedule ☑ have been issued during the course of the works.

On by the basis of ☐ this ☐ these review(s) and information supplied by the contractor during the course of the works and **on behalf of the firm** undertaking this Construction Review, I **believe on reasonable grounds** that ☑ All ☐ Part only of the building works have been completed in accordance with the relevant requirements of the Building Consent and Building Consent Amendments identified above, with respect to Clause(s) B1 of the Building Code. I also believe on reasonable grounds that the persons who have undertaken this construction review have the necessary competency to do so.

I, John Newell am: ☒ CPEng No. 1018146
(Name of Construction Review Professional)

☐ Reg Arch No. .....

I am a Member of : ☒ IPENZ ☐ NZIA and hold the following qualifications: BE (Hons)

The Construction Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than $200,000*.

The Construction Review Firm is a member of ACENZ : ☒

SIGNED BY John Newell **ON BEHALF OF** Opus International Consultants

Date: 18/2/16 Signature: .....

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of $200,000.*

This form is to accompany **Forms 6 or 8 of the Building (Form) Regulations 2004** for the issue of a Code Compliance Certificate.

OPUS

SITE VISIT RECORD

Inspection no: 1

Contract:
BNZ – New Building – Ruataniwha Street - Waipukurau

Contractor:	**Building Consent Number(s):**
McMillan Lockwood	BC 150037 (Wall) & BC 150036 (Bldg.)

Date:	15/10/2015	**Arrival:**	11:00	**Depart:**	13:00
Weather and Site conditions:	Good				
Contractor's site rep:	Callum Bryson			**No. staff onsite:**	3

Conractor's activities & plant onsite

Truck & Digger

Health, safety and environmental compliance

OK

Site records/Observations

Soft silts and gravels overlying firm clay. "Good ground" appears to be @ SSL-750mm/-1150mm varying across the site. An adiditional 280/680mm excavation would likely be required to achieve suitable bearing. Advised that bearing (and compaction) checks to be provided due to the soils variability across the site.

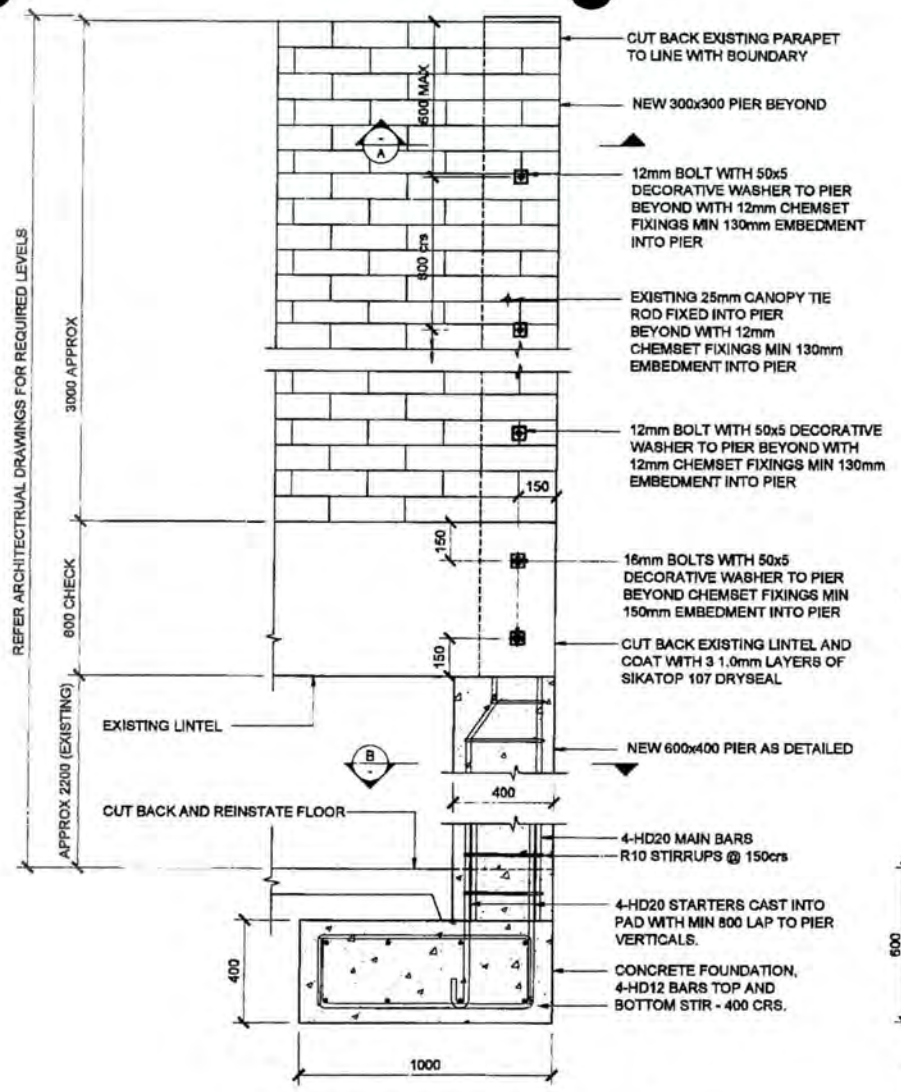
The pier as shown on consented drawings is not on the neighborouring property, due to the encroachment this will need to be demolished and reinstated and requires a re-design and a variaiton to the drawings.

Signature:

G. McDonald

GENERAL NOTES:

- ANY EXPOSED STEELWORK TO BE EITHER GALVANISED OR ZINC EPOXY PAINTED. INTERNAL STEELWORK TO BE PRIMED. REFER TO ARCHITECTS DRAWINGS FOR FINISHES.
- REFER TO NZS 3604:2011 FOR DURABILITY REQUIREMENTS OF ALL FIXINGS.
- NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES.



NEW REINFORCED CONCRETE PIER.
SCALE 1:20

REINFORCEMENT NOTES:

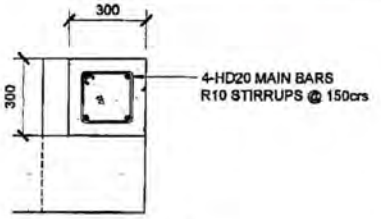
REINFORCING BAR LAP LENGTHS:

D10 - 400mm	HD12 - 700mm
D12 - 500mm	HD16 - 900mm
D16 - 650mm	HD20 - 1050mm

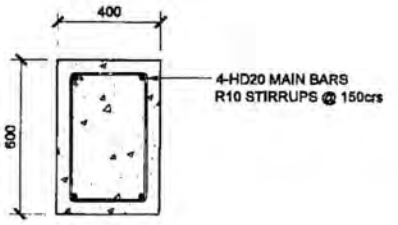
BAR GRADES:
R - STRUCTURAL GRADE ROUND BAR.
D - DEFORMED BAR GRADE 300E
HD - DEFORMED BAR GRADE 500E

D12 'L-BARS' ARE TO BE PLACED AT ALL INTERSECTIONS OF CONCRETE WORKS, NUMBER OF BARS TO MATCH MAIN REINFORCEMENT AND RETURN 300mm ALONG OUTSIDE OF BEAM .

DRAWING TO BE READ IN CONJUNCTION WITH THE CONSENTED DRAWINGS. MASONRY WALL TO BE TIED TO PIER AS SHOWN ON CONSENTED DRAWINGS. CONTRACTOR TO CONFIRM WHETHER PROPOSED WORK REQUIRES A VARIATION TO THE BUILDING CONSENT.



SECTION A-A
SCALE 1:20



SECTION B-B
SCALE 1:20

1:1 @ A3
0 10 20 30 40 50 mm

OPUS architecture Palmerston North Office +64 6 350 2500 PO Box 1472 Palmerston North 4440 New Zealand	NEW BUILDING FOR BANK OF NEW ZEALAND 63 RUATANIWHA STREET	
Designed: CM Approved: AN Drawn: CM Date: 130.1.20	SITE INSTRUCTION 1 SUPPLIMENTARY SHEET	
	Project No: 4-M0633.01	Sheet No: 1 Revision: 1

OPUS

NOTICE TO CONTRACTOR

Consecutive Notice No. 1		Date:	23 October 2015	
Contractor:	Barry Robin McMillan Lockwood			
Contract:	New Buliding 63 Ruataniwha Street Waipukurau		File No.: 4-M0633.01	WS01

Subject to a site inspection on 21st October 2015, the observed foundation excavation base is suitable to receive backfill, provided the exposed surface is in a firm condition and that any loose areas are compacted prior to the placement of backfill.

The backfill beneath the foundations should comprise compacted granular fill in accordance with Section 8.2 of the geotechnical report. Backfill should be compacted to 95% of maximum dry density (when compacted to the appropriate NZS laboratory proctor test), and the backfill should be of good quality (e.g. AP65, AP40 or AP20 material that has good crushing resistance and has ≥ 50% broken faces).

The backfill will be compacted with a plate compactor, or equivalent alternative methods, typically in layers not exceeding 150 mm thickness.

In order to provide a PS4, we will need to have NDM compaction testing results provided to us to confirm that the hardfill has been sufficiently compacted. The Contractor can engage an IANZ accredited laboratory to conduct the NDM testing, which should be undertaken after the first 300 mm of hardfill has been placed and then again at the finish level of the compacted hardfill. Test positions (x, y and z) should be recorded for each NDM test at mutually agreed locations as approved by Opus International Consultants Limited (Opus).

Clegg testing alone is not sufficient to show that the hardfill has been compacted to a sufficient density.

In order to provide a PS4, Opus will also need to see (and be able to review for comment) photos of the stripping beneath the slab areas prior to the placement of any backfill to be placed beneath the slabs as well as confirmation that the hardfill was sufficiently compacted as outlined above.

Signed:	Received:
Engineer/ Architect: 22/10/15	Contractor: ..../...../.....
	(Please sign and return duplicate copy to Engineer/Architect)

Distribution (Indicate as appropriate)

Contractor	Principal	Contract File
Contractor's Duplicate Copy(For Signing and Return)	QS	Construction Engineer
Engineer/Architect	M/E	Site Engineer/Inspector
Engineer's/Architect's Representative	Structural	

Opus International Consultants Ltd
Palmerston North Office

L4, The Square Centre, 478 Main Street
PO Box 1472, PN Central, Palmerston North 4440
New Zealand

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w. www.opus.co.nz

OPUS

SITE VISIT RECORD

Inspection no: 2

Contract:
BNZ – New Building – Ruataniwha Street - Waipukurau

Contractor:	**Building Consent Number(s):**
McMillan Lockwood	BC 150037 (Wall) & BC 150036 (Bldg.)

Date:	11/11/2015	**Arrival:**	15:00	**Depart:**	15:30
Weather and Site conditions:	Fair				
Contractor's site rep:	Callum Bryson			**No. staff onsite:**	6

Conractor's activities & plant onsite

Hand & power tools, formwork under construction

Health, safety and environmental compliance

Good

Site records/Observations

First pour - ok to proceed, however redesign required to build over neighbouring wall's foundation that encroaches onto 63 Ruataniwha St. towards the centre of the site - refer Section C/S010 for site instruction to remediate. Project Manager requests commentary on additional work encountered to date.

Signature:

G. McDonald

CALCULATION SHEET

Project/Task/File No: Amend Section C

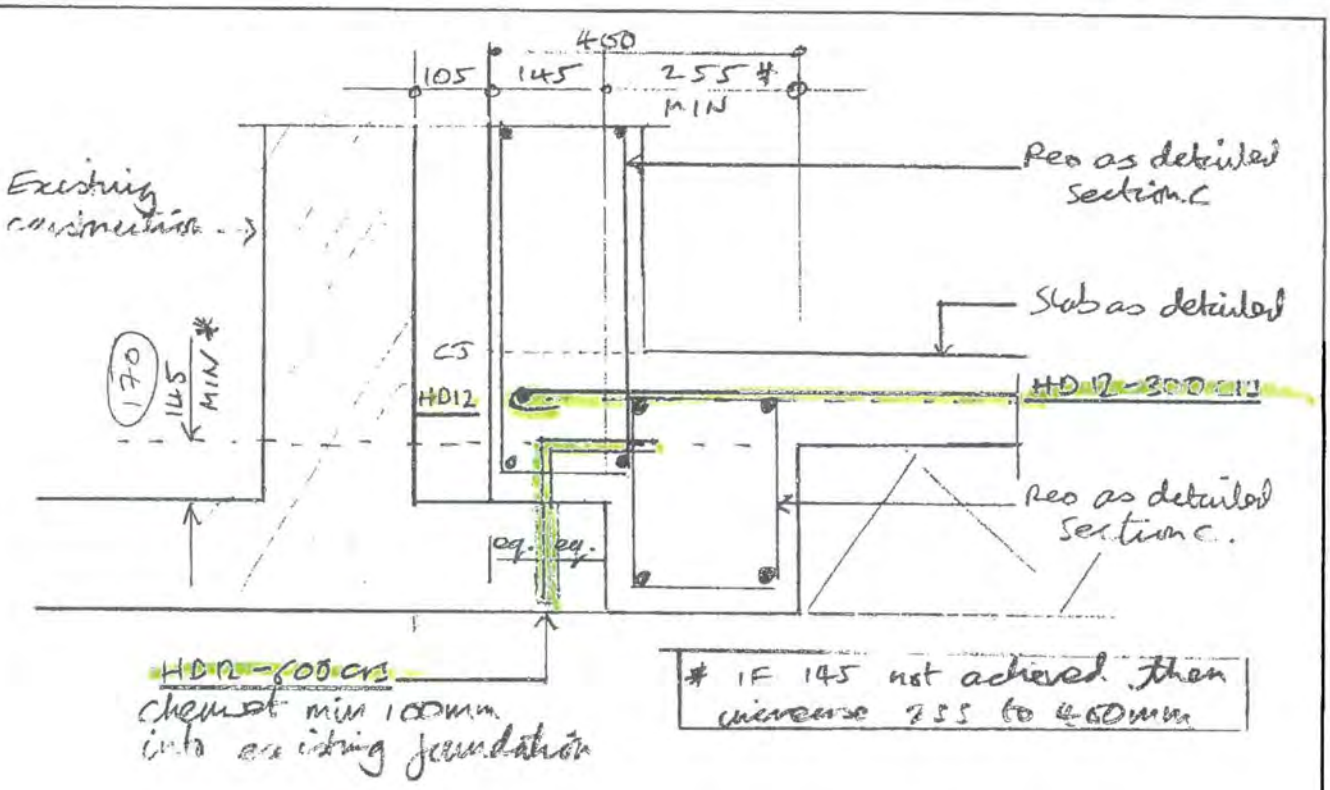
Project Description: BNZ Waipuk

Sheet No 2 of 2

Office:

Computed: 18 / 11 / 15

Check: / /



Geoff McNelly

From: Geoff McNelly
Sent: Thursday, 19 November 2015 4:37 p.m.
To: 'Nick Jones'
Subject: Additional Work for BNZ New Build - Waipukurau

Nick,

As requested please see below some commentary regarding the additional work encountered to date –

- Suitable founding soils varied across the site, and appeared to be a depth greater that initial investigations suggested by approximately 280-680mm (varying) across the site.
- The assumed existing pier on the adjacent SPCA building was not present hence a new column has been re-designed to suit (refer revised drawings re-issued today). In addition to this rework this will require connecting the existing parapet and canopy back to the new column plus reinstating/replacing the SPCA shopfront window in addition to extra work required at foundation level.
- The adjacent masonry wall footing encroaches upon the proposed new foundations, this has also been redesigned to accommodate.

Please note this may not be an exhaustive list, just what I have observed during my three visits to site. Much of this is covered in the NTC dated 23 October 2015.

Also Nick, just FYI - I have also been requested to work through a detail change due to the SPCA trusses needing to be cut back more than expected to accommodate the internal gutter, I have outlined a solution with Callum & will issue alongside yesterday's site visit record.

Best regards

Geoff

OPUS

Geoff McNelly | Senior Structural Engineer | Opus International Consultants Ltd
Phone +64 6 350 2528 | Mobile +64 21 718 433 | Fax +64 6 350 2525 | Email Geoff.McNelly@opus.co.nz
Level 4 The Square Centre, 478 Main Street, Palmerston North 4410, New Zealand
PO Box 1472, PN Central, Palmerston North 4440, New Zealand

Visit us online: www.opus.co.nz

Geoff McNelly

From: Geoff McNelly
Sent: Thursday, 19 November 2015 3:31 p.m.
To: 'Callum Bryson'
Cc: 'Barry Robin'
Subject: RE: Column photos

They look great Callum, please go ahead.

RE the saw cuts, yes please cut as shown on s10 as "otherwise indicated"

Feel free to call if you have any questions re the revised drawings just sent through.

Regards

Geoff

OPUS

Geoff McNelly | Senior Structural Engineer | Opus International Consultants Ltd
Phone +64 6 350 2528 | Mobile +64 21 718 433 | Fax +64 6 350 2525 | Email Geoff.McNelly@opus.co.nz
Level 4 The Square Centre, 478 Main Street, Palmerston North 4410, New Zealand
PO Box 1472, PN Central, Palmerston North 4440, New Zealand

Visit us online: www.opus.co.nz

From: Callum Bryson [mailto:callum.b@mlgroup.co.nz]
Sent: Thursday, 19 November 2015 3:16 p.m.
To: Geoff McNelly <geoff.mcnelly@opus.co.nz>
Subject: Column photos

Hey Geoff attached are the column photos for your inspection and reply by 9am tomorrow morning.
I also just read General Note 13 on s001. What do you want in the way of sawcuts/ construction joins in the main slab? Just as per drawing s010?

Cheers
Callum Bryson
Site Manager
Central Region

M 0274 535 505

McMILLAN LOCKWOOD

622 Tremaine Ave
P O Box 1646

Geoff McNelly

From: Geoff McNelly
Sent: Monday, 16 November 2015 9:35 a.m.
To: 'Callum Bryson'
Cc: Daryl Horn; 'Barry Robin'
Subject: RE: Vertical Block Reo laps

Hi Callum,

Typically for concrete masonry the conservative option would be just to develop the full strength of the reinforcement as follows -

YD12 basic development length (lap) = 70 x 12 = **840mm**
YD16 basic development length (lap) = 70 x 16 = 1120mm

D12 basic development length (lap) = 40 x 12 = 480mm
D16 basic development length (lap) = 40 x 16 = 640mm

As such I would consider that the 800mm as discussed on the phone, and detailed on A/S015 of the drawings (95% full development length) to meet the intention of sections B/C/D too.

Cheers

Geoff

From: Callum Bryson [mailto:callum.b@mlgroup.co.nz]
Sent: Friday, 13 November 2015 12:02 p.m.
To: Geoff McNelly <geoff.mcnelly@opus.co.nz>
Subject: Vertical Block Reo laps

Hey Geoff

As discussed on the phone can you please confirm that 800mm lap into the blocks is sufficient as this is what it has been detailed at as per section A S015. However sections B,C and D on S018 specify 1100mm lap. The table stating lap lengths for YD12 also states 800.

Please confirm

Cheers
Callum Bryson
Site Manager
Central Region

M 0274 535 505

McMILLAN LOCKWOOD

622 Tremaine Ave
P O Box 1646

OPUS

SITE VISIT RECORD

Inspection no: 5

Sheet No.1 of 1

Contract:
BNZ – New Building – Ruataniwha Street - Waipukurau

Contractor:	**Building Consent Number(s):**
McMillan Lockwood	BC 150037 (Wall) & BC 150036 (Bldg.)

Date:	1/12/2015	**Arrival:**	13:10	**Depart:**	13:30
Weather and Site conditions:	-				
Contractor's site rep:	Callum Bryson			**No. staff onsite:**	6

Conractor's activities & plant onsite

-

Health, safety and environmental compliance

OK

Site records/Observations

Slab pre-pour - OK to pour

Signature:

G. McDonald

OPUS SITE VISIT RECORD

Inspection no: 6
Sheet No.1 of 1

Contract:
BNZ – New Building – Ruataniwha Street - Waipukurau

Contractor:	**Building Consent Number(s):**
McMillan Lockwood	BC 150037 (Wall) & BC 150036 (Bldg.)

Date:	10/12/2015	**Arrival:**	10:30	**Depart:**	12:15
Weather and Site conditions:	-				
Contractor's site rep:	Callum Bryson			**No. staff onsite:**	3

Conractor's activities & plant onsite

-

Health, safety and environmental compliance

OK

Site records/Observations

Concrete Masonry query on 3.2m lift concrete specifications. First masonry wall ok to pour. Canopy tie requested to be welded to 18mm high yield strength rod instead of 20mm standard grade approved. FPBW to existing eyelet also approved. Callum agreed to provide details of truss gutter dimensions to allow re-design for enlarged gutter required to meet current code.

Signature:

G. McDonald

CALCULATION SHEET

Project/Task/File No: 4-M0633.01

Project Description: Further information/dimensions required

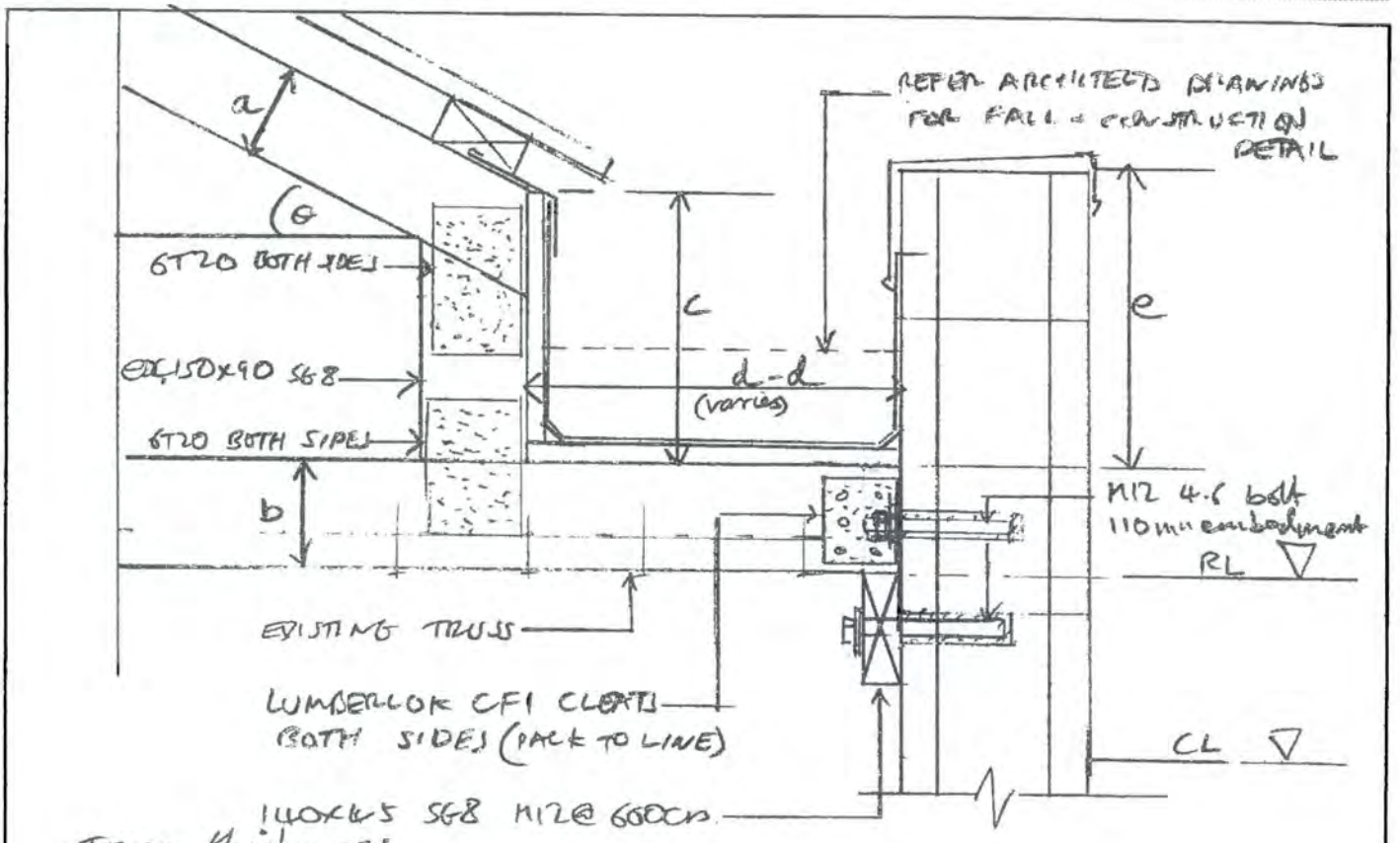
FAO: CALLUM

Sheet No 1 of 1

Office: PN

Computed: 14/12/15

Check: / /



Truss thickness:

Truss centres:

Truss tributary dimension:

5 Dimensions as per above :

a)
b)
c)
d-d)
e)

OPUS

text_0

Callum, Trevor,
Masonry grouting for the 3.2m lift needs an admixture to achieve a workability spread (not slump) of 450mm to 530mm. Unless stated specifically on the drawings any special expanding admixture that achieves this workability will be fine. I am on holiday today but back in the office on Monday.

Text sent on 11/12/15

Geoff McNelly

From: Geoff McNelly
Sent: Monday, 14 December 2015 2:36 p.m.
To: 'Barry Robin'
Subject: RE: Special Reo Paint

Hey Barry,

3 layers of Sikatop 107 dryseal (approx. 1mm per coat) – datasheet available online.

Regards

Geoff

Geoff McNelly | Senior Structural Engineer | Opus International Consultants Ltd
Phone +64 6 350 2528 | Mobile +64 21 718 433 | Fax +64 6 350 2525 | Email Geoff.McNelly@opus.co.nz
Level 4 The Square Centre, 478 Main Street, Palmerston North 4410, New Zealand
PO Box 1472, PN Central, Palmerston North 4440, New Zealand

Visit us online: www.opus.co.nz

From: Barry Robin [mailto:Barry.R@mlgroup.co.nz]
Sent: Monday, 14 December 2015 1:40 p.m.
To: Geoff McNelly <geoff.mcnelly@opus.co.nz>
Subject: FW: Special Reo Paint

Geoff,
See below. Can we have the product information on the plaster system that you want applied to the reo that is exposed on the SPCA facade wall.

Barry Robin
Project Manager
Central Region

T +64 6 357 0979 (ext. 807)
F +64 6 357 0970
M 0274 954 700

McMILLAN LOCKWOOD

622 Tremaine Ave
P O Box 1646
Palmerston North 4440
New Zealand

OPUS

SITE VISIT RECORD

Inspection no: 7

Sheet No.1 of 1

Contract: BNZ – New Building – Ruataniwha Street - Waipukurau	
Contractor: McMillan Lockwood	**Building Consent Number(s):** BC 150037 (Wall) & BC 150036 (Bldg.)

Date:	16/12/2015	**Arrival:**	10:30	**Depart:**	11:00
Weather and Site conditions:	-				
Contractor's site rep:	Callum Bryson			**No. staff onsite:**	9

Conractor's activities & plant onsite

-

Health, safety and environmental compliance

OK

Site records/Observations

Masonry wall ok to pour - agreed to accept photo's for grid A. callum agreed to provide depth, dimensions of steel truss tie for re-use if possible.

Signature:

G. McDonald

OPUS

SITE VISIT RECORD

Inspection no: 8

Sheet No.1 of 1

Contract:
BNZ – New Building – Ruataniwha Street - Waipukurau

Contractor:	**Building Consent Number(s):**
McMillan Lockwood	BC 150037 (Wall) & BC 150036 (Bldg.)

Date:	12/01/2016	**Arrival:**	14:00	**Depart:**	15:00
Weather and Site conditions:		Overcast			
Contractor's site rep:		Callum Bryson		**No. staff onsite:**	8

Conractor's activities & plant onsite

-

Health, safety and environmental compliance

OK

Site records/Observations

Masonry wall final inspection - OK to pour. Masonry grid 1 photo's to follow, tie rod to canopy - photo's to follow, agreed to fix as per existing. Trusses cut back 45/90mm varies in error, revised bracket connection needs to be designed.

Signature:

G. McDonald

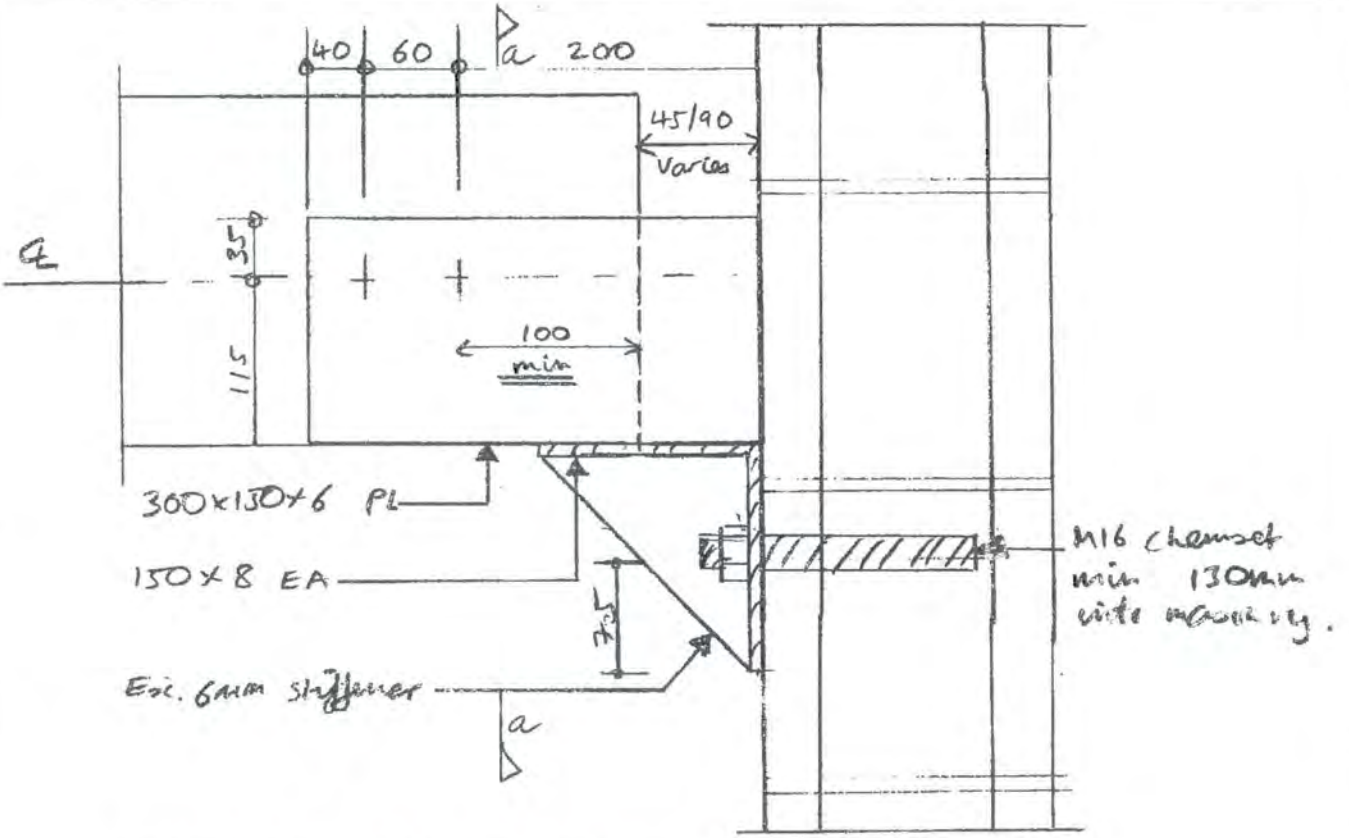
CALCULATION SHEET

Project/Task/File No: 4M-06 23.01 | Sheet No 1 of 1

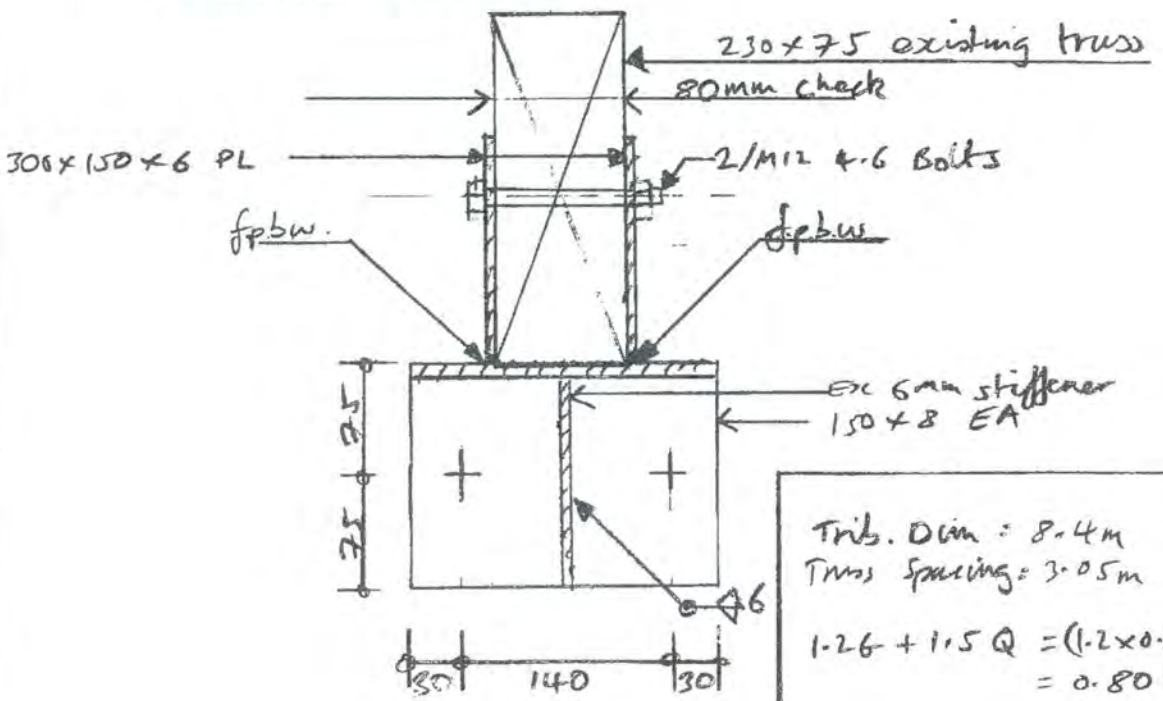
Project Description: BNZ WAIPUK | Office: PN

Computed: 15 / 1 / 16

Check: / /



EXISTING TRUSS TO NEW WALL REVISED CONNECTION DETAIL



Sec a-a

Trib. Dim = 8.4m (Span)
Truss Spacing = 3.05m

$1.2G + 1.5Q = (1.2 \times 0.35) + (1.5 \times 0.25)$
$= 0.80$ kPa

$R1 = R2 = \frac{8.4 \times 3.05 \times 0.8}{2} = 10.2$ kN

OPUS

OPUS

SITE VISIT RECORD

Inspection no: 9

Sheet No.1 of 1

Contract:
BNZ – New Building – Ruataniwha Street - Waipukurau

Contractor:	**Building Consent Number(s):**
McMillan Lockwood	BC 150037 (Wall) & BC 150036 (Bldg.)

Date:	21/01/2015	**Arrival:**	11:00	**Depart:**	12:00
Weather and Site conditions:	Good				
Contractor's site rep:	Callum Bryson			**No. staff onsite:**	4

Conractor's activities & plant onsite

0

Health, safety and environmental compliance

Masonry walls not propped and may be unstable in the event of an earthquake - contractor advised

Site records/Observations

Site meeting only

Signature:

G. McDonald

CONTRACTOR'S PROPOSED PLUMBING ARRANGEMENT.

Sketch 1 of 1

18TH Nov 2015.

C.Hyde, Napier

OFFICE COPY

VARIATION

DATE: 25/11/2015

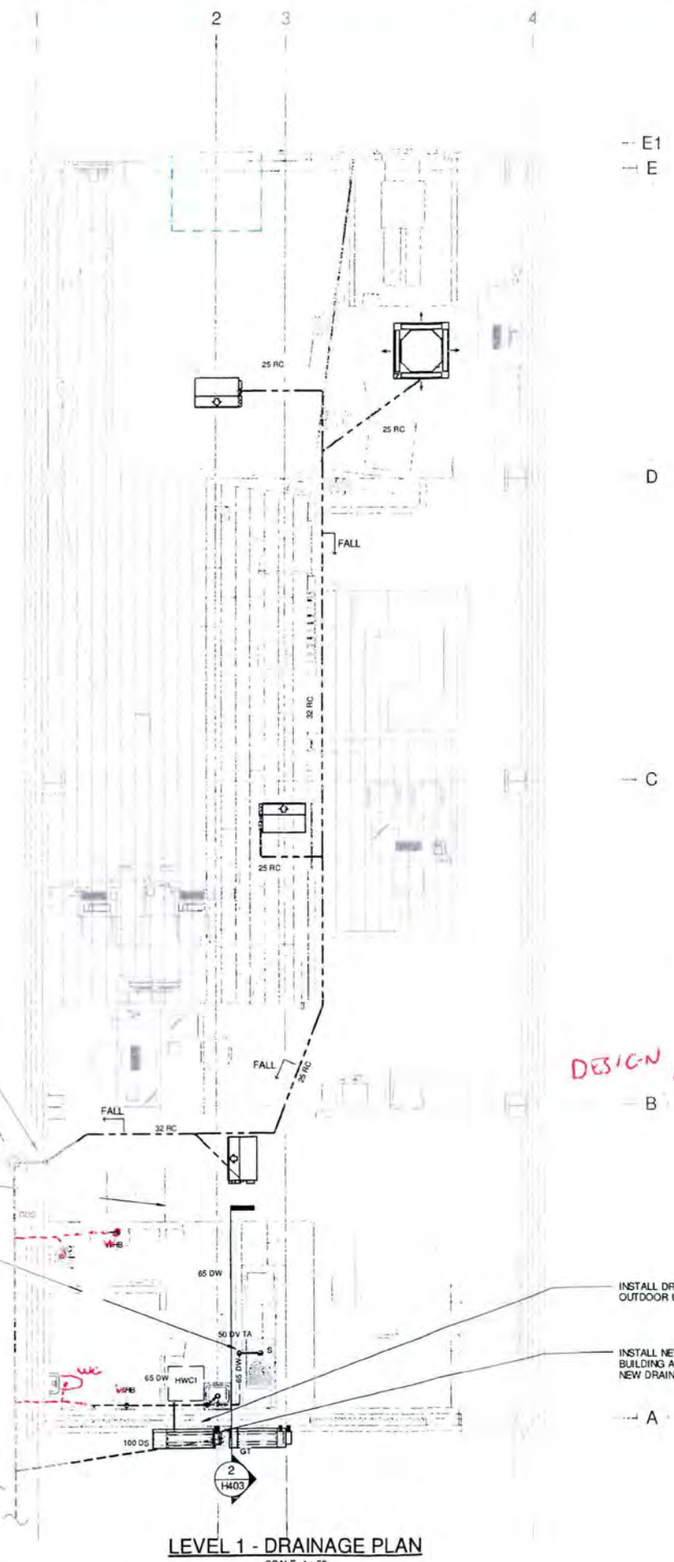
NOTE: MINOR CHANGE TO DRAINAGE DESIGN - COMPLIES WITH G13/AS3. ISSUED VIA SECTION 45A BA 2004

IR

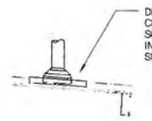
Building Consent Number

150036

PLEASE DO NOT CHANGE ANYTHING FROM THE CONSENTED DRAWINGS WITHOUT PRIOR APPROVAL OF THE BUILDING CONSENT AUTHORITY. FAILURE TO DO SO MAY RESULT IN FINES OR PROSECUTION AND/OR RE-INSPECTION & RE-PROCESSING FEES.



LEVEL 1 - DRAINAGE PLAN
SCALE 1 : 50



VENT PIPE ROOF PENETRATION DETAIL
N.T.S.

---- PROPOSED LINE OF INTERNAL PLUMBING.

PROPOSAL REMOVES CORNERS / BENDS IN PIPEWORK.

LENGTH OF LINE IS SHORTER THAN DESIGN, THEREFORE CAN GET A GREATER GRADIENT OF PIPEWORK WHICH IS A BENEFIT.

ALSO EASIER TO CONSTRUCT FOR CONTRACTOR.

Revision	Amendment	Approved	Revision Date
1	NOTES ADDED, PIPE ROUTES CHANGED, PIPE SIZE CHANGE	AB	22/05/15
2	MINOR ALTERATIONS	AB	18/06/15
3	CONSTRUCTION		24/08/15

bnz

OPUS
Hamilton Office
+64 7 838 9344
Private Bag 3057
Hamilton 3240
New Zealand

Drawn	Designed	Approved	Issue Date
L.DRIVER	L.DRIVER	K.OCONNOR	29/10/2014

Project No.	Scale
4-M0633.00	As indicated @ A1

Project
BNZ Waipukurau
63 Ruataniwha Street
Waipukurau

Title
DRAINAGE LAYOUT

Drawing No.	Sheet No	Revision
4-M0633.00.HM	H403	R3.

CONSTRUCTION

Michael Williams
Trydan Electrical Ltd
118 Jickell St
Palmerston North
4410

INSTALLER DECLARATION STATEMENT

Issued To: McMillan & Lockwood

In Respect Of: Emergency Lighting and illuminated exit signs

At: 63 Ruataniwha St, Waipukurau

Date: 06/05/2016

Trydan Electrical has been contracted to McMillan & Lockwood to inspect and complete the Electrical Services for the above works.

I, Michael Williams, a duly authorized representative of Trydan Electrical believe on reasonable grounds that has carried out the Electrical Services Contract Works in accordance with the plans, specifications and directions of the principal in accordance with the contract.

This work is recorded on our Certificates of Compliance Nos. BNZ Waipuk

TESTING COMPLETED: YES

Installed to AS2293.1:2005

NZBC F6, F8, G9.

Authorised Agent: Michael Williams

Signature: 

Trydan Electrical Limited

PO Box 9042. Palmerston North
021 25 66 376 | 06 357 8762
trydanelectrical@gmail.com

BNZ Waipukurau

Emergency and illuminated test sheet

TEST LIGHTS EVERY 30 DAYS (30 SECOND TEST)

DATE TESTED	LIGHTS OPERATED	LIGHTS FAILED	DATE REPAIRED	SIGNATURE
26/4/16	PASS	—	—	

ANNUAL TEST (1.5 HOUR TEST)

DATE TESTED	LIGHTS OPERATED	LIGHTS FAILED	DATE REPAIRED	SIGNATURE

ELECTRICAL CERTIFICATE OF COMPLIANCE AND ELECTRICAL SAFETY CERTIFICATE

Reference/Certificate ID No: BNZ Waipuk

This form has been designed to be used by licensed electrical workers to certify that installations or Part installations under **Part 1 or Part 2 of AS/NZS 3000** are safe to be connected to the specified system of electrical supply.

Location Details: 63 Ruataniwha St, Waipukurau

Contact Details: (Name and address) McMillan & Lockwood, Tremaine Ave, Palmerston North

Name of Electrical worker: Michael Williams **Registration/Practising licence number:** E249420

Organisation/company: Trydan Electrical

Phone and email: 0212566376 / trydanelectrical@gmail.com

Name of person(s) supervised:

CoC

Type of work: Additions Alterations New work ✓

The prescribed electrical work is: Low risk General High risk (Specify): Mains

Reference Standards: Part 1 of AS/NZS 3000 Part 2 of AS/NZS 3000 ✓

Additional Standards:

Description of Work: (including date/s of work and type of supply system)

Install new mains cable 25mm 3 core NS, 6mm main earth, Wire and fit off Bnz bank as per electrical plan provided by OPUS.18/04/2016

I certify that the completed prescribed electrical work to which this Certificate of Compliance applies has been done lawfully and safely, and the information in the certificate is correct in that the installation, or part of the installation:

Select those that apply:

- ✓ Has been installed in accordance with the specified certified design[1]
- ✓ Has an earthing system that is correctly rated (where applicable)
- ✓ Contains fittings that are safe to connect to a power supply
- ✓ Relies on a supplier Declaration of Conformity[1]
- ✓ Relies on a manufacturer's instructions[1]
- ✓ Has been satisfactorily tested in accordance with the Electricity (Safety) Regulations 2010
- ✓ Is safe to connect

Test Results	
Polarity (Independent earth):	ok
Insulation resistance:	ok
Earth Continuity:	ok
Bonding:	ok
Fault Loop impedance	ok
Other (specify):	

Electronic/Other reference: www.Jarussell.co.nz

Certifier's signature:

Date: 18/04/2016

1 Attach or reference. If it is impractical to attach a copy of a particular manufacturer's instructions, or of any certified design or supplier declaration of conformity, provide a reference to where the documents can be found, in a readily accessible format, by electronic means.

ESC

I certify that the installation, or part of the installation, to which this Electrical Safety Certificate applies is connected to a power supply and is safe to use.

Certifier's name: Michael Williams **Registration/Practising licence number:** E249420

Certifier's signature:

Certificate Issue Date: 18/04/2016 **Connection Date:** 18/04/2016

CUSTOMER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED FOR A MINIMUM OF 7 YEARS

This certificate also confirms that the electrical work complies with the building code for the purposes of Section 19(1)(e) of the Building Act 2004.

Michael Williams
Trydan Electrical Ltd
118 Jickell St
Palmerston North
4410

INSTALLER DECLARATION STATEMENT

Issued To: McMillan & Lockwood

In Respect Of: Emergency Lighting

At: BNZ, 63 Ruataniwha St, Waipukurau

Date: 20/04/2016

Trydan Electrical has been contracted to McMillan & Lockwood to inspect and complete the Electrical Services for the above works.

I, Michael Williams, a duly authorized representative of Trydan Electrical believe on reasonable grounds that has carried out the Electrical Services Contract Works in accordance with the plans, specifications and directions of the principal in accordance with the contract.

This work is recorded on our Certificates of Compliance Nos. BNZ Waipuk

TESTING COMPLETED: YES

Installed to AS/NZS 2293.1:1995

Authorised Agent: Michael Williams

Signature: 

ELECTRICAL CERTIFICATE OF COMPLIANCE AND ELECTRICAL SAFETY CERTIFICATE

ELECTRICAL WORKERS REGISTRATION BOARD

Reference/Certificate ID No: 29496

This form has been designed to be used by licensed electrical workers to certify that installations or Part installations under Part 1 or Part 2 of AS/NZS 3000 are safe to be connected to the specified system of electrical supply.

Location Details: BNZ WAIPUKARAU

Contact Details: (Name and address)

Name of Electrical worker: PETER JONES. Registration/Practising licence number: E13479

Organisation/company: MAT TAR INDUSTRIAL

Phone and email: 06 350 1000.

Name of person(s) supervised:

COC

Type of work: ☐ Additions ☐ Alterations ☑ New work

The prescribed electrical work is: ☐ Low risk ☐ General ☐ High risk (Specify):

Reference Standards: ☐ Part 1 of AS/NZS 3000 ☐ Part 2 of AS/NZS 3000

☐ Additional Standards:

Description of Work: (including date/s of work and type of supply system)

INSTALL 3x FANS - 4 x SPLIT AC UNITS
1 3Ø HEATER BANK

I certify that the completed prescribed electrical work to which this Certificate of Compliance applies has been done lawfully and safely, and the information in the certificate is correct in that the installation, or part of the installation:

Select those that apply:

- ☑ Has been installed in accordance with the specified certified design[1]
- ☑ Has an earthing system that is correctly rated (where applicable)
- ☑ Contains fittings that are safe to connect to a power supply
- ☐ Relies on a supplier Declaration of Conformity[1]
- ☐ Relies on a manufacturer's instructions[1]
- ☑ Has been satisfactorily tested in accordance with the Electricity (Safety) Regulations 2010
- ☑ Is safe to connect

Test Results	
Polarity (Independent earth):	✓
Insulation resistance:	✓
Earth Continuity:	✓
Bonding:	✓
Fault Loop impedance	✓
Other (specify):	

Electronic/Other reference:

Certifier's signature:

Date: 20/4/2016

1 Attach or reference. If it is impractical to attach a copy of a particular manufacturer's instructions, or of any certified design or supplier declaration of conformity, provide a reference to where the documents can be found, in a readily accessible format, by electronic means.

ESC

I certify that the installation, or part of the installation, to which this Electrical Safety Certificate applies is connected to a power supply and is safe to use.

Certifier's name:

Registration/Practising licence number:

Certifier's signature:

Certificate Issue Date:

Connection Date:

ER 04/06/14 This certificate also confirms that the electrical work complies with the building code for the purposes of Section 19(1)(e) of the Building Act 2004.

CUSTOMER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE KEPT FOR A MINIMUM OF 7 YEARS

CERTIFIER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE KEPT FOR A MINIMUM OF 7 YEARS

Form 40
Responsibility: BTL

Version: 2
Date: 02/07/14

NAME BNZ Properties
ADDRESS 63 Puketaniwhas St
WAIPUKURAU

BC 140135

RM

Description of Work: Demolition

Value: $45000

File 11: 01607

PIM Yes ☐ No ☒ see PIM NOTES Planning Notes: OK. NES consent may be needed. Asbestos report requested	**PIM** Yes ☐ No ☒ see PIM NOTES **Sewer** Service to be abd and new plan provided **Water**	**Accessway** **Rapid No:**_____ **Stormwater** to be removed & built

Extra RPI, PIM Notes

Advisory Notes: (underline)

Development Levies $.....

Documents Required:	**FORM 4 To be issued with consent?** ☐
As built P & D ☐ **PS3 :for**_____	To be granted under Section 72 BA04? ☐
Electrical Cert ☐ **PS4 :for**_____	Section 73, Registrar General notified? ☐
Gas Cert ☐ **LBP Cert of work** ☐	Section 75 applies to application? ☐
Draft Compliance Schedule ☐	Section 75 Certificate issued? ☐

Date	Initial	Inspection Notes
4.7.14	BCJ	$365 **PIM** Yes ☐ No ☒ **RPI or PIM Notes :** 7. (If a PIM has been requested, please put EXACT notes on PIM SHEET Enclosed) **QV** ☐ (Please put plan in QV file) **Advisory Notes:** **Consent Conditions:** 79 **Building Category:** **Inspections:** **Consent OK to grant:** ☐ **ZONE:**

Supervision Required Yes ☐ No ☐
Supervisor Signature: _____

Certificate of Title Enclosed ☒ **Purchased** ☐ **(if ordered charge $25.50)**

Please complete for filing.
Producer Statement Enc: ☐ Structural Calculations Enc: ☐ Specifications (if not on plans): ☐
NZ Fire Design Memo: ☐ Further Info Letter: ☐ Copy of complaints received: ☐

Form 40
Responsibility: BTL

Version: 2
Date: 02/07/14

NAME BNZ PROPERTIES
ADDRESS 63 Puketaniwha St
WAIPUKURAU

BC 140135

RM

Description of Work: Demolition Value: $45000 File 11010607

Date	Initial	Inspection Notes	Val Roll No: 1088011600

12/9/14 - Refusal to Grant letter - AH

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street, PO Box 127, Waipawa 4240, New Zealand
Telephone: (06) 857-8060, Fax: (06) 857-7179
Email: info@chbdc.govt.nz
www.chbdc.govt.nz

12 September 2014

BNZ Branch Properties
Private Bag 92209
AUCKLAND 1142

BC Number: 140135
Application Date: 4 July 2014

Dear Sir/Madam

Refusal of application for building consent *(Section 50 Building Act 2004)*
63 Ruataniwha Street, Waipukurau
Lot 2 DP 24265

Under section 50(a) of the Building Act 2004 I am writing to you to inform you that your application for a building consent has been refused.
Under section 50(b) the reasons for this refusal are as follows:

The failure of your agent to supply the further information requested to process the building consent in accordance with the building code and the Building Act 2004 section 48(2), and the BCA stipulation within the further information letter sent to you that you had 30 working days from the date of the letter to supply that information.

Please inform us of how you wish to have your documents returned to you, or when you will have then picked up from the office.

If we have no reply to this request the documents will be disposed of after 30 working days from the date of this letter.

The costs of processing your application will be established, and if this is less than your deposit, a refund will be issued and you will be informed of this in writing.

If the processing and administrative costs are in excess of the deposit you will receive an invoice from the authority for the outstanding balance.

If you wish to proceed with the building work at any point please make a new application for building consent under section 45 of the Building Act 2004.

Yours faithfully

Jock Hyde
Building Consent Authority Team Leader

M E M O R A N D U M

DATE: **16TH FEBRUARY 2018**

FROM: Elle Gilbert

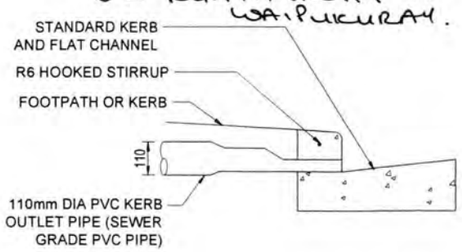
REF: **Property:** 63 Ruataniwha Street, Waipukurau
Name: BNZ Bank
Valuation No: 1088011600

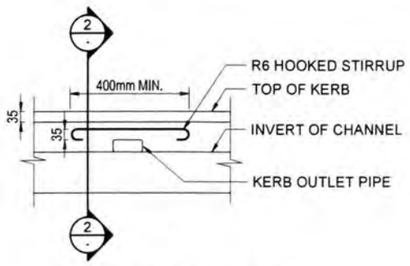
The stormwater connection to the above property has been inspected and completed to council satisfaction.

Elle Gilbert
Land Transport Officer

1088011600

63 RUATANIWHA ST
WAIPUKURAU.

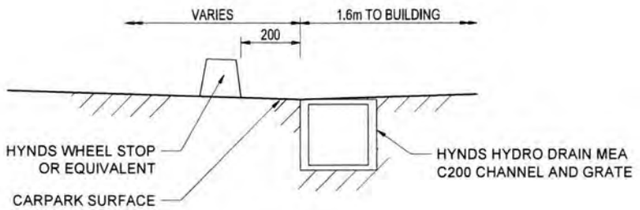




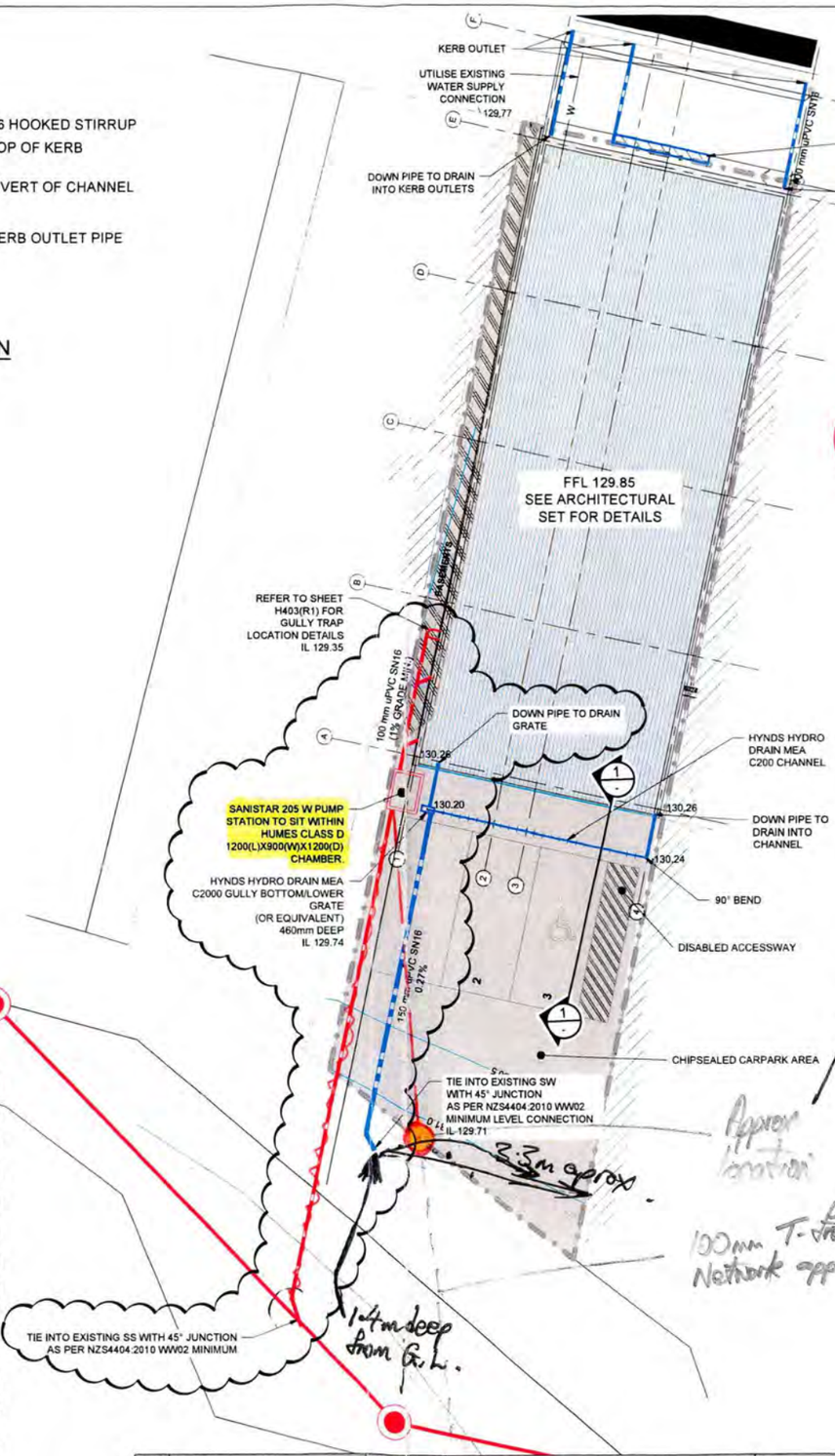
2 SECTION
Scale: 1:10(A1)

FRONT ELEVATION
SCALE 1:10 @ A1

KERB OUTLET
SCALE 1:10 @ A1



1 SECTION
Scale: 1:10(A1)



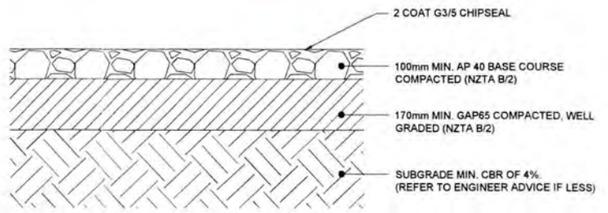
PROPOSED LEGEND:

- HYNDS 200 CHANNEL GALV MESH GRATE
- PROPOSED STORMWATER LINE
- PROPOSED SEWER LINE
- ACO BRICKSLOT

EXISTING LEGEND:

- EXISTING MANHOLES
- EXISTING SEWER LINE
- EXISTING STORMWATER LINE
- EXISTING POWER LINE
- EXISTING WATER SUPPLY

COPY



TYPICAL PAVEMENT DETAIL

SCALE 1:10 @ A1

COPY

Building Consent Number
150036

NOTES:

1) PIPES HAVING LESS THAN 800mm COVER ARE TO BE CONCRETE CAPPED.
2) CONTRACTOR TO LOCATE AND IDENTIFY ALL SERVICES PRIOR TO EXCAVATION AND PROTECT THROUGHOUT CONSTRUCTION.
3) ANY DISCREPANCY BETWEEN THE DETAILS SHOWN ON THIS DRAWING AND CONDITIONS ON SITE ARE TO BE NOTIFIED TO THE ENGINEER IMMEDIATELY.
4) ALL LEVELS ARE IN TERMS OF LINZ DATUM.
5) THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE STRUCTURAL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS
6) IF SUBGRADE CBR ≥ 4% NO UNDERCUT IS REQUIRED.
7) IF SUBGRADE CBR < 4%, BUT > 2%, UNDERCUT 170MM, PLACE BIDIM A29 GEOTEXTILE ON EXPOSED SUBGRADE AND PLACE/COMPACT 170MM GAP 65.
8) IF SUBGRADE CBR < 2%, CONTACT THE DESIGNER.
9) FOR PROPERTY CONNECTIONS REFER TO NZS4404: 2010 WW - 002
10) THE EXACT LOCATION OF THE PUMP STATION AND CHAMBER TO BE FINALISED ON SITE IN CONSULTATION WITH THE ENGINEER.
11) THE CONTRACTOR TO ENSURE THE CHAMBER IS CONSTRUCTED WITHIN THE SITE BOUNDARY.
12) THE LOCATION OF THE CONTROL PANEL AND THE SOURCE OF POWER SUPPLY TO BE FINALISED ON SITE IN CONSULTATION WITH THE ENGINEER.
13) CONTRACTOR TO FINALISE THE CONNECTION TO THE COUNCIL SEWER ON SITE IN CONSULTATION WITH THE ENGINEER.
14) THE CONTRACTOR NEEDS TO INSTALL A REDUCER TO SUITE THE DN 63mm OUTLET PIPE INSTALLED.

Revision	Amendment	Approved	T/wison Date
1	ISSUED FOR CONSENT AND TENDER	T.W.	13.11.2014
2	MH CONNECTIONS REVISED TO JUNCTIONS	T.W.	26.02.2015
3	SERVICES, CARPARK AMENDED & DETAILS ADDED	T.W.	02.06.2015
4	ISSUED FOR CONSTRUCTION	T.W.	21.08.2015
5	SEWER CONNCETION UPDATED	S. K.	04.04.2016

Bank of New Zealand

CONSTRUCTION

OPUS
Auckland Office
+64 9 355 9500
PO Box 5848
Auckland 1141
New Zealand

Designed	Approved	Approved Date
S.S / M.R.	T. WILSON	13.11.2014
Drawn	Scales	Project No.	Sheet No.	Revision
M. ROMIC	1:100@A1	4-M0633	C001	5

Project
BNZ
63 RUATANIWHA STREET
WAIPUKURAU

Sheet
CIVIL WORKS
LAYOUT AND DETAILS

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m

Original Sheet Size A1 [841x594] Plot Date 2016-04-04 at 4:19:34 PM Path K:\Other_Clients\BNZ\4-M0633\7104\4-M0633_C001.dwg C001

Nigel Moore

COPY

From:	Peter Eastwood
Sent:	Wednesday, 13 April 2016 8:37 a.m.
To:	Nigel Moore
Cc:	Karen Bothwell; Richard Clifton
Subject:	BNZ Building BC150036

Hi Nigel

I have discussed the request to pump the wastewater from the new BNZ building into the Council main in the south services lane.

Council consent to the pumped connection to the main subject to the following conditions:-

1. That the discharge from the pumped pipe discharges in the direction of flow in the main.
2. That the pumped pipe DOES NOT obstruct the existing main in any way.
3. That the connection must be sealed and not allow any infiltration of ground water.
4. That the connection to the main is inspected by Council Staff.
5. Alternatively the pumped line can be discharged into the downstream manhole. But again this must not obstruct the manhole in any way and must be inspected by Council Staff. Also the existing connection must be sealed to Council satisfaction.

Regards

Peter

--

Peter F. Eastwood Senior Civil Engineer
Central Hawke's Bay District Council
28-32 Ruataniwha Street, Waipawa 4210 | PO Box 127, WAIPAWA 4240
Phone 06 8578060 | Fax 06 8577179
Email: peter.eastwood@chbdc.govt.nz | Web: www.chbdc.govt.nz

BC 150036

BNZ

MINOR VARIATION –

REVISED SEWER CONNECTION DETAILS FROM SHEET C002 REVISION 3 / CONSENTED.

SANISTAR 205 COMPACT SEWAGE DISPOSAL UNIT PUMP STATION & CHAMBER TO BE INSTALLED.

TWIN PUMP WITH INTEGRATED SWING CHECK VALVE WITH FLOOD PROTECTED PUMP STATION

HUMES CLASS D 1.2m L x 900 W x 1.2m DEEP CHAMBER CONSTRUCTED WITHIN THE SITE BOUNDARY.

100mm U/PVC MIN FALL 1 % = 1 in 100 RATIO

G13/AS2 TABLE 2 DRAIN DISCHARGE UNIT LOADING & MINIMUM GRADIENTS.

WITHIN SHADED AREA = SEE PARAGRAPH 5.2.2 =

WHERE DRAINS ARE LAID AT GRADIENTS OF 1:80 OR LESS VARIABLE LEVELING DEVICES SHALL BE USED TO ENSURE UNIFORM & ACCURATE GRADIENTS.

(COMMENT: LAZER & DUMPY LEVELS ARE RECOMMENDED DEVICES.)

* COUNCIL CONDITIONS SUPPLIED WITH CONNECTION TO MAIN INSPECTED BY COUNCIL STAFF

I AM SORE THE OBJECTIVE, FUNCTIONAL & PERFORMANCE REQUIREMENTS OF G13 HAVE BEEN MET AND INFORMATION RECEIVED IS ACCEPTABLE UNDER THE RELEVANT NZ BUILDING CODE CLAUSES AND PASSED AS A MINOR VARIATION UNDER SECTION 45(a) OF BA'04. MMoore

MINOR

VARIATION

DATE: 12/04/16

SEWAGE DISPOSAL UNIT PUMP STATION

NOTE: WITH HUMES CHAMBER CONSTRUCTED WITHIN SITE BOUNDARY PASSED AS A MINOR VARIATION UNDER SECTION 45(a) OF BA'04. MMoore.

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

HIGGINS

1088011600

ENTERED 26/4/16

*RFS No: 151054

SEWER / WATER / STORM WATER CONNECTION AS BUILT REPORT

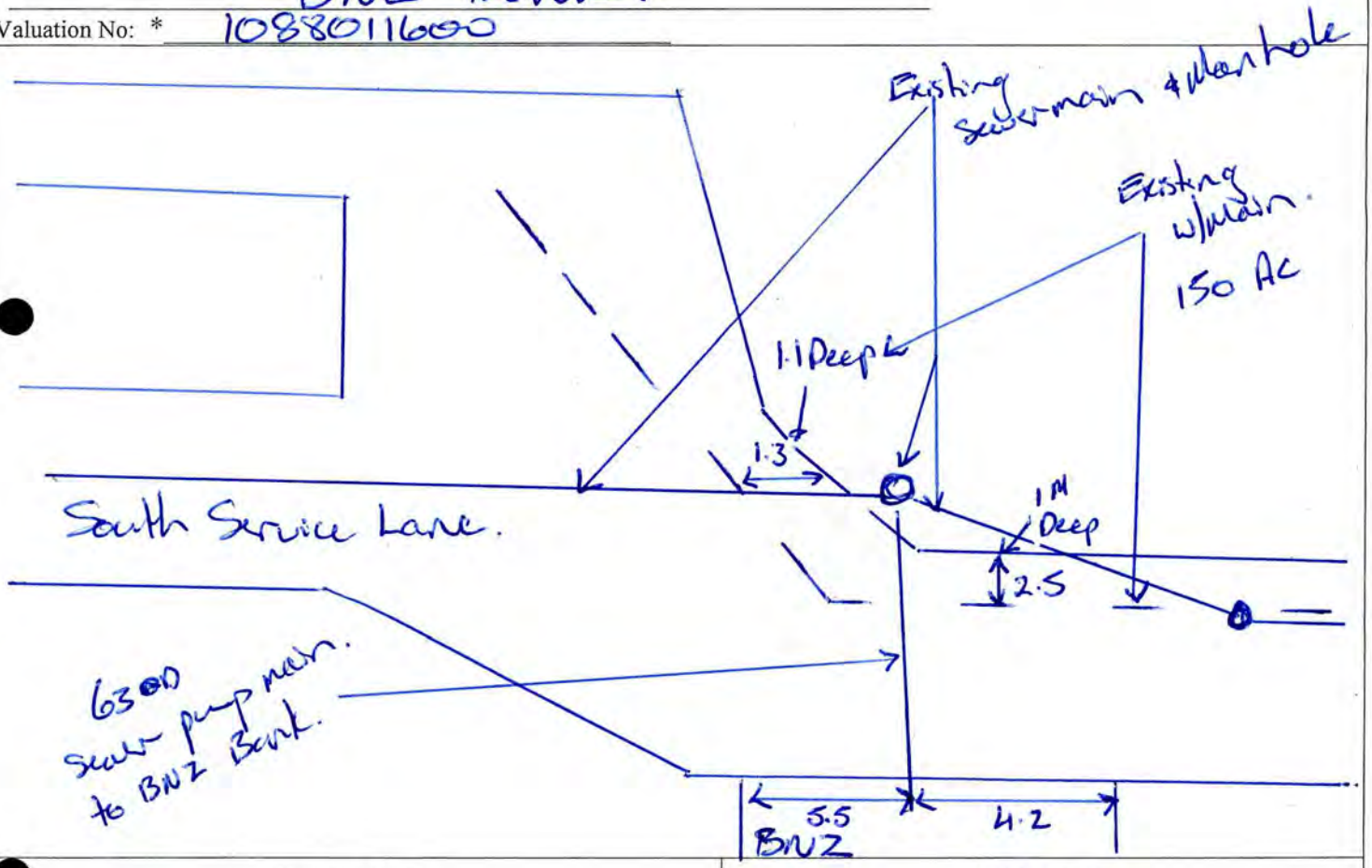
(Circle Appropriate Service)

ADDRESS DETAILS: * South Service Lane

* BNZ Bank.

*

Valuation No: * 1088011600



New Meter Details	Old Meter Details
*New Meter Type:	*Old Meter Type:
*New Meter Serial No:	*Old Meter Serial No:
*Tamper Proof Seal No:	*Old Meter Reading:
*New Meter Reading:	
*Diameter:	

Please Record Lateral And Main Information Below:

LATERAL			LOCATION				
*Depth at Boundary	.7		Lateral Location at Boundary			Lateral Location at Main	
Depth at Main		OR	*Distance from LHB	4.2	OR	Distance from LHB	
*Material	PE		*Distance from RHB	5.5		Distance from RHB	
*Diameter	630D		DISCONNECTED				
MAIN:			Inside Boundary			*Serviceman:	K. Hunt.
Depth			Outside Boundary				
Material			At Main			*Date Replaced:	6.4.16
Diameter							

File:SER2-300
Valuation Number: 1088011600

19 June, 2008
Timothy & Heather Mordaunt & Florentine Lawrence
C/- Property Brokers
236 Broadway Avenue
PALMERSTON NORTH

RECIPIENT: ISSUED & SIGNED OFF 26/8/08

Dear Sir/Madam,

Re: Stormwater infiltration of the Waipukurau Sewerage System
Property Address: 63 Ruataniwha Street, Waipukurau

The Central Hawke's Bay District Council has been conducting infiltration investigations in the district over the past year. This infiltration study is as a result of the Council's sewer systems becoming overloaded because of high volumes of storm-water being discharged into the sewers.

As a result of this investigation, Council contractors, AES Ltd, have found that your property has one fault which contributes to storm-water discharge into the sewer. Please contact a plumber or drain-layer to bring your drainage up to standard. A Property Fault Diagram and photograph of the fault is attached.

Fault Description:

1) The gully trap is too low. Please have a gully surround installed to prevent surface water entering the sewerage system. To assist you a diagram of a standard gully trap is attached.

We request that you repair the above fault by the 14th August 2008. When fault repairs have been completed please fill in the details below and return this letter in the self addressed envelope enclosed. An inspection for sign off will then be arranged.

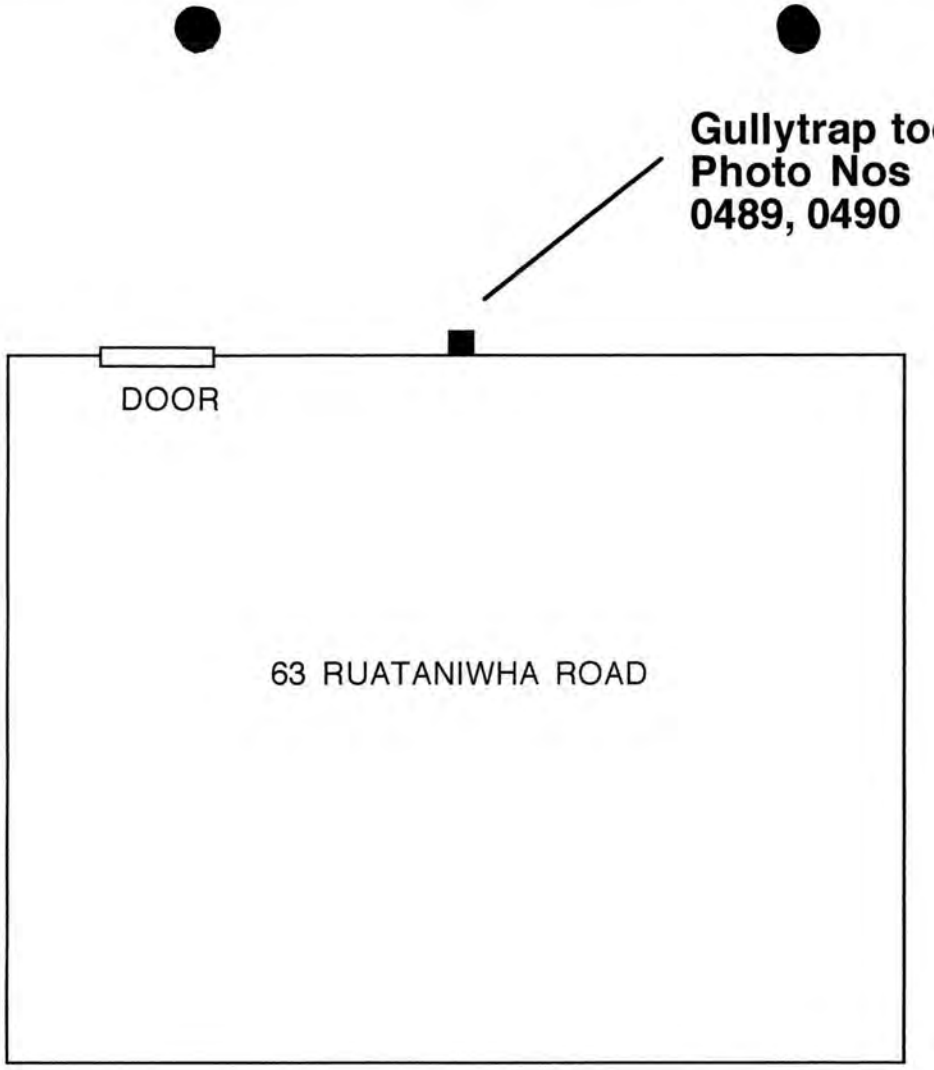
If you are encountering difficulties or require advice, please do not hesitate to contact me on 06 857 8060.

Yours faithfully

Karen Bothwell
Waters Operations Manager

For John Freeman
Chief Executive

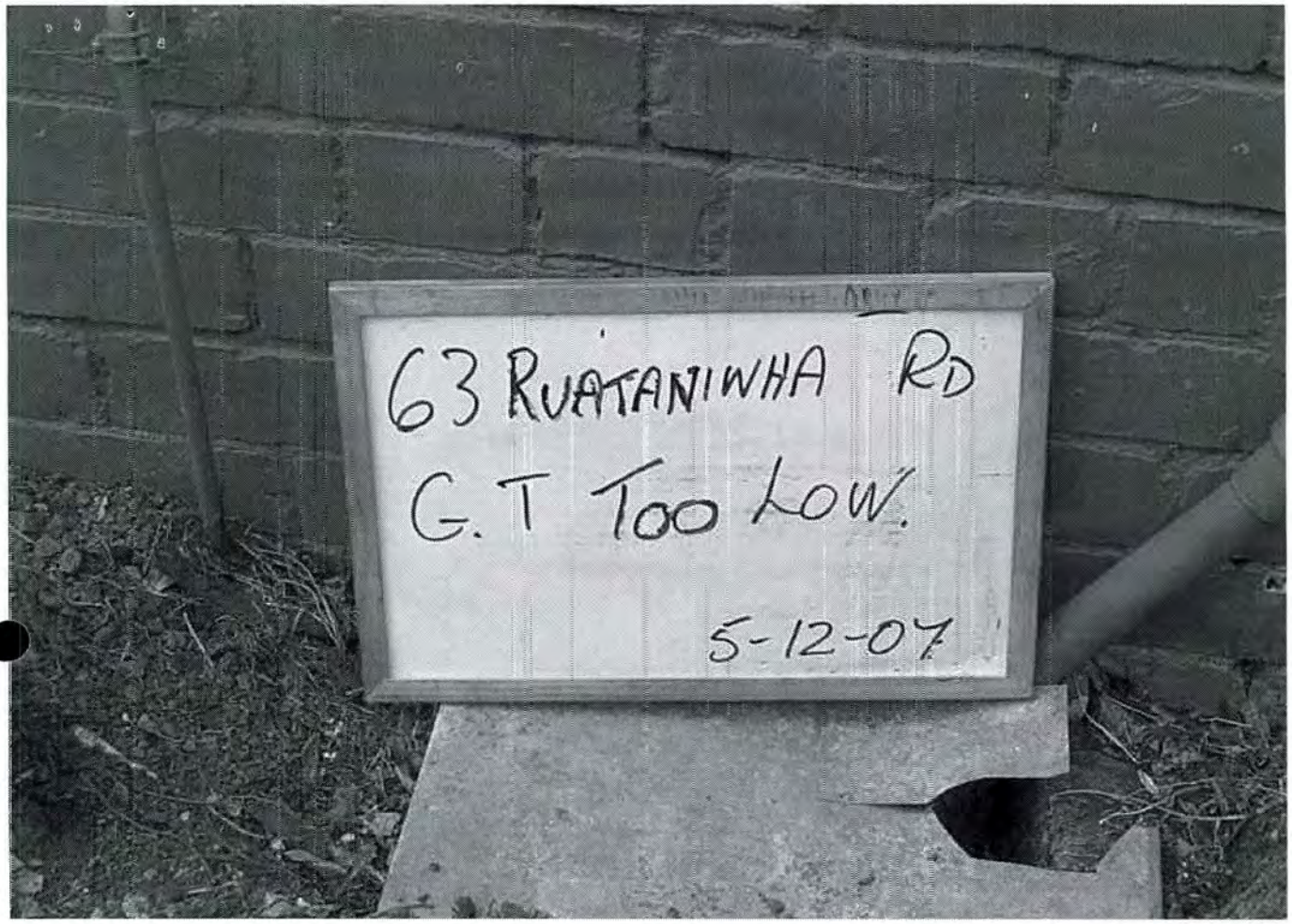
KAB|N:\07-08\Utilities\Waste Water\Infiltration Study\Waipukurau\Waipukurau Letters\Infiltration Fault 63 Ruataniwha Street Waipukurau.DOC



CENTRAL HAWKE'S BAY DISTRICT COUNCIL
AREA - WAIPUKURAU
PROPERTY FAULT DIAGRAM
63 RUATANIWHA ROAD

63 Ruataniwha Road

05 / 12 / 2007


63 RUATANIWHA RD
G.T TOO LOW.
5-12-07


63 RUATANIWHA RD
G.T TOO LOW.
5-12-07

63 RUATANIWHA STREET, WAIPUKURAU

Date Work Completed: 11/8/08

Plumber/Drainlayer Work Completed by: PLUMBING PLACE LTD WAIPAWA

Property Owner's Name(s): TIMOTHY & HEATHER MORDAUNT & FLORENTINA LAWRENCE

Property Owner's Signature(s):

Property Owner's Telephone Number: 06 356 5122

CENTRAL HAWKE'S BAY DISTRICT COUNCIL
RECEIVED
14 AUG 2008

SITE INSPECTION / VISIT

By:- THEMBA NGOMANZI UTILITIES OFFICER

Date:- 22/8/08

Time:- 1037 HRS

63 RUATANIWHA ST, WPK.

1088011600

CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Ruataniwha Street,
PO Box 127, Waipawa 4240
New Zealand

Phone: 06 857 8060
Fax: 06 857 7179

info@chbdc.govt.nz
www.chbdc.govt.nz

22 November 2019

BNZ Branch Properties Limited
c/- Colliers International
PO Box 1631
Shortland Street
Auckland 1140

Dear BNZ Branch Properties Limited

Identification of your building as NOT potentially earthquake prone at 63 Ruataniwha Street, Waipukurau (LOT 2 DP 24265)

Throughout the month of June 2019, Central Hawke's Bay District Council (CHBDC) engaged an engineering consultancy to assist in the identification of the potentially earthquake prone buildings on the priority route.

The priority route, as determined by CHBDC in November 2018, through a special consultative procedure with the community, detailed in Section 83 Local Government Act 2004, are those routes which were identified as either;

a. Any part of a public road, footpath, or other thoroughfare in an area of medium or high seismic risk that has sufficient vehicle or pedestrian traffic to warrant prioritising;
b. A transport route of strategic importance that could be impeded by the failure of a building or building elements.

Waipukurau and Waipawa were the only towns within the District that were identified as having priority routes by the CHBDC following consultation with public. A graphic of the two routes, and the buildings situated on those routes, are available at https://www.chbdc.govt.nz/services/building-consents-information/building-code/earthquake-prone-buildings-in-central-hawkes-bay/

Letters have been sent to all building owners on the priority route that have had their buildings identified as either a; **(1) potentially earthquake prone building**, or **(2) not identified as potentially earthquake prone building**; as per the earthquake prone building (EPB) methodology profile categories. Refer to Section 133AG of the Building Act.

Your building, on the basis of **not** triggering any of the three profile categories below, has been classified as **'not identified as Potentially Earthquake Prone'** following the priority screening. The profile categories are as follows;

- Category A – Unreinforced Masonry (URM) building or parts,
- Category B – Pre-1976 buildings either three or more storeys or 12 metres or greater in height,
- Category C – Pre-1935 buildings that are one or two storeys (other than unreinforced masonry buildings in Category A)

As the result of this classification, at this time you are **not** required to undertake the obligations that those building owners with buildings identified as **Potentially Earthquake Prone** are required as outlined in Section 113AI of the Building Act.

Please note that while you are not obligated to undertake any engineering assessments at this time, the classification of **'not identified as potentially earthquake prone building'** your building has received following this initial screening, may not exclude the building from being identified as **'potentially earthquake prone'** in the future.

As per the Building Act, CHBDC reserves the right to identify buildings in the priority route or elsewhere within the district, at any time, as **'potentially earthquake prone'**, but would need to supply adequate reasoning to justify this identification. An example of reasonable justification may include an assessment result following the engagement of an engineer to complete a more in-detail assessment than was completed in this priority screening process (eg. an Initial Seismic Assessment – ISA). Or – if your building is located adjacent to a building that has been considered as potentially earthquake prone, this may have knock-on effects for you if remedial work is required. We encourage you to talk to your neighbours following the receipt of this letter so that you are aware of the situation around you.

If you possess any structural engineering assessment documentation or the like, CHBDC would appreciate this being provided for our records as it may assist greatly in our future undertakings.

Should you have any further questions about this process, please email us at epb@chbdc.govt.nz or call on (06) 857 8060.

For more information, please contact the Central Hawkes Bay District Council or see the following documents;

- Building Act 2004
  http://www.legislation.govt.nz/act/public/2004/0072/latest/whole.html
- EPB Methodology
  https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/epb-methodology.pdf
- Guidance on Priority Buildings
  https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/epb-priority-buildings.pdf

Regards,

AFrancis

Alison Francis
Customer and Consents Manager

EASTERN REAL BAYLEYS 035095

GST Registered No. 52-710-944
Central Hawke's Bay District

Bank Account Paid Into	01-0777-0038665-00
Bank Statement Date	19/06/24
Date Processed	06/24
Process Status Flag	L Processed Dir Cr credited to ledger
Cashier & Bank Process	47 Main Banking Cashier, Auto
Ledger & Account Posted To	DR 035095
Amount	$625.00
Other Party Bank Account Name	EASTERN REALTY
Short Detail	DC
Particulars	EASTERN REAL
Analysis Code	BAYLEYS
Reference	035095
Type of Payment	DC Direct Credit