TRAFFIC & PARKING ASSESSMENT

COMMERCIAL BUILDING

LOT 1 DP 230063
206 HIGH STREET, MAITLAND

PREPARED FOR: STEVENS GROUP.

NOVEMBER 2021

REF: 21/213

TRAFFIC & PARKING ASSESSMENT REPORT
COMMERCIAL BUILDING

LOT 1 DP 230063
206 HIGH STREET, MAITLAND
STEVENS GROUP

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QUALITY ASSURANCE

This document has been prepared, checked and released in accordance with the Quality Control Standards established by Intersect Traffic Pty Ltd.

Issue	Date	Description	By
A	10/11/21	Draft	JG
B	11/11/21	Edit	JG
C	15/11/21	Final Proof / Amended Plans	JG
D	16/11/21	Approved	JG

This document has been authorised by

Date: - 16th November 2021

CONTENTS

ATTACHMENTS

PHOTOGRAPHS

FIGURES

1.INTRODUCTION

Intersect Traffic Pty Ltd has been engaged by Stevens Group to undertake a traffic and parking assessment for a proposed two-storey commercial building on Lot 1 DP 230063 – 206 High Street, Maitland. The proposed development plans are shown in ***Attachment A***.

This traffic and parking assessment is required to support a development application to Maitland City Council seeking approval for the proposed development. The purpose of this document is to undertake an assessment of the likely traffic and parking impacts of the proposal on the local and state road network and associated roadside infrastructure to allow Council to assess the merits of the application.

This report presents the findings of the traffic and parking assessment and includes the following:

- An outline of the existing situation near the site;
- An assessment of the traffic impacts of the proposed development including the predicted traffic generation and its impact on existing road and intersection capacities;
- Reviews the on-site parking provided within the proposed development and assesses it against Council and Australian Standards requirements;
- Reviews existing alternative transport mode availability and suitability; and
- Presentation of conclusions and recommendations.

2. DEVELOPMENT PROPOSAL

2.1 Site Location

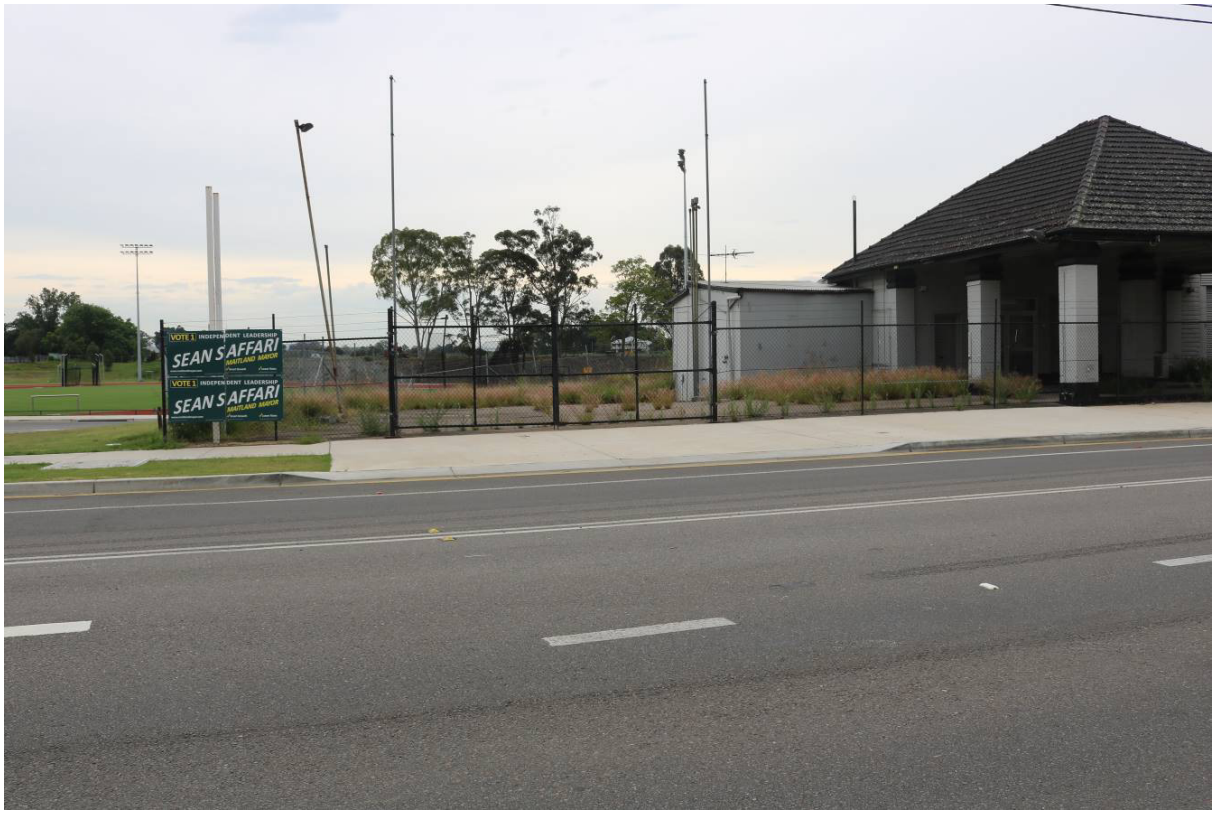
The site is located on the north-eastern side of High Street, Maitland approximately 60 metres north-west of Abbott Street. The site is approximately 700 metres south-east of the Levee retail and entertainment precinct, 1 km east of Maitland Railway Station and 220 metres north-west of High Street Railway Station. ***Figure 1*** below shows the site location from a local context.

The site is titled Lot 1 DP 230063, is addressed as 206 High Street, Maitland and has an area of approximately 810 m^2. The property is zoned B4 Mixed Use pursuant to the Maitland LEP (2011). The site currently contains a vacant building with previous uses of the site including a service station and most recently a rental car business. ***Photograph 1*** below shows the existing site conditions.

The site currently has two vehicular accesses to the site off High Street a remnant from the previous use of the site as a service station. The proposal is to remove the eastern access and utilise the existing western access as a combined entry / exit driveway to the ground level at grade on-site parking area. ***Photograph 2*** below shows the existing western vehicular access to the site to be utilised by the proposed development for access to the on-site car parking.

Figure 1 – Site Location

Photograph 1 – Existing site conditions.



Photograph 2 – Existing western vehicular access.

2.2 Development Proposal

The proposed development involves the following:

- Demolition of all structures on the property;
- Construction of a two storey commercial building with a ground floor area of 290.3 m^2 GFA and a level 1 floor area of 287.4 m^2 GFA.
- Use of existing western access to the site for access to the on-site car parking area with removal of the existing eastern site access;
- Provision of 13 on-site car parking spaces at ground level on the western side of the building for use by staff and visitors; and
- Drainage and Landscaping to Maitland City Council requirements.

2.3 Existing Road Network

High Street

High Street under a functional road hierarchy is a major local collector road and the major transport route to the Maitland CBD (The Levee) area. It is under the care and control of Maitland City Council and near the site a 60 km/h speed zoning exists. It connects the CBD traffic as well as residential traffic in the area to the arterial road network at Les Darcy Drive (New England Highway) approximately 750 metres south-east of the site.

Near the site High Street is a two-lane two-way sealed urban road with adjacent parking lanes on both sides of the road. Lane widths are approximately 3.0 to 3.5 metres with kerb and gutter and concrete footpaths. At the time of inspection High Street was observed to be in good condition (see ***Photograph 3***).

Photograph 3 – High Street near the site.

2.4 Traffic Generation

Traffic generation data is generally sourced from the *RTA's Guide to Traffic Generating Developments (2002)* or NSW RMS Technical Direction TDT 13/04. The relevant traffic generation rate within the RTA Guide is as follows;

Commercial Premises

Daily vehicles = *10 / 100 m² GFA*
Evening peak hour vehicle trips = *2 / 100 m² GFA*

Therefore the additional traffic generated by the development can be calculated as;

Daily vehicle trips = 577.7 x 10 / 100 = 58 vtpd

PM peak hour traffic generation = 577.7 x 2 / 100 = 12 vtph.

This traffic generation has been adopted for assessment purposes and it is assumed the AM peak traffic generation is the same as the PM peak traffic generation.

2.5 Traffic Impacts and Considerations

2.5.1 Road Network Capacity

The capacity of the road network is generally determined by the capacity of intersections. However, Table 4.3 of the RMS *Guide to Traffic Generating Developments* provide some guidance on mid-block capacities for urban roads. This table is reproduced below.

Table 4.3
Typical mid-block capacities for urban roads with interrupted flow

Type of Road	One-Way Mid-block Lane Capacity (pcu/hr)	
Median or inner lane:	Divided Road	1,000
	Undivided Road	900
Outer or kerb lane:	With Adjacent Parking Lane	900
	Clearway Conditions	900
	Occasional Parked Cars	600
4 lane undivided:	Occasional Parked Cars	1,500
	Clearway Conditions	1,800
4 lane divided:	Clearway Conditions	1,900

Source: - RTA's Guide to Traffic Generating Developments (2002).

Urban road capacity at the site is thus calculated based on Table 4.3 and noting the road network is generally a two-way two-lane network with parking lanes.

- High Street (900 x2) = 1,800 vtph.

Intersect Traffic undertook a traffic count at the High Street / Ward Street intersection adjacent to the site on Thursday 11th November 2021 in the AM and PM road network peaks. These road network peaks have been determined from previous counts undertaken by Intersect Traffic at the High Street / Hunter Street intersection west of the site and are;

- AM peak – 8 am – 9 am; and
- PM peak – 3.15 pm – 4.15 pm.

The current road and future network peak hour traffic volumes on High Street have been determined as by adopting a background traffic growth rate of 2 % per annum.
;

- 2021 – AM – 1,064 vtph and PM – 1,111 vtph
- 2031 – AM – 1,300 vtph and PM – 1,340 vtph

Noting these traffic volumes are below the technical two-way mid-block capacity of High Street it can be concluded that there is spare capacity within the road network to cater for development in the area.

The addition of only up to 12 vtph resulting from this development would not cause the capacity thresholds to be reached through to 2031 therefore it is reasonable to conclude that there is sufficient capacity within the existing road network to cater for this development and the development will therefore not adversely impact on the two-way mid-block traffic flows on the road network.

2.5.2 Intersection Capacity

The intersections most impacted by the development will be the High Street / Ward Street and the High Street / Athletic field access which are adjacent to the site. Other intersections that potentially would be impacted on will be the High Street / Abbott Street intersection east of the site and the High Street / Hunter Street / Victoria Street intersection west of the site.

The development traffic will only increase traffic through these intersections by a maximum of 6 vtph after considering the likely directional distribution of the development traffic which represents approximately 0.5% of existing traffic through the intersections. This is considered insignificant as it is well less than the usual daily and seasonal variances in peak hour traffic through the intersection which can be up to 10 %. Therefore there will not be a noticeably impact on the operation of this intersection. It is also generally accepted that when traffic volume increases from a development through an intersection are less than 10 vtph it is reasonable to conclude the development will not adversely impact on the operation of the intersection without further intersection analysis.

2.5.3 Site Access and Parking

Post development the site access will service a car parking area containing 13 cars and under Table 3.1 of Australian Standard *AS2890.1-2004 Parking facilities – Part 1 - Off-street car parking* a car park with between 1 to 25 car parking spaces accessed via a local road providing long term parking (Class 1A) is required to have a Category 1 access facility. A Category 1 access facility is a combined entry / exit driveway between 3.0 metres and 5.5 metres wide. The existing access to the site to be utilised by the development is approximately 7 metres wide (see ***Photograph 2***) therefore is considered suitable for the development as it would comply with the minimum requirements of *Australian Standard (AS2890.1-2004*).

From observation on site it has been estimated that the available sight distance at the vehicular access at High Street is in excess of 130 metres which exceeds the safe sight distance requirements of Australian Standard (*AS2890.1 – 2004 Parking facilities – Part 1 Off street car parking – Figure 3.2)* which is 69 metres for a 50 km/h speed environment and 83 metres for a 60 km/h speed environment.

Overall it is concluded that use of the existing western vehicular access to the site for access to the proposed on-site car park is suitable as it provides a suitably safe vehicular access compliant with Australian Standards and Maitland City Council requirements.

Maitland Development Control Plan (2011) under *Section C - Design Guidelines C11 Vehicular Access & Car Parking* and Section 5.14 of the RMS *Guide to Traffic Generating Developments (2002)* sets out the requirements for on-site car parking to be provided for new developments. The

relevant rates for this development proposal being noting the site is within the Maitland CBD as shown in Map 2 of Appendix C within Section C11 of the DCP:

Business Premises and Office premises

1 space per 45 m^2 GFA

Therefore the on-site car parking requirement for the development based on the Maitland Council DCP is as follows;

No. spaces = 577.7 / 45 = 12.8 say 13 car parks.

As the site is providing 13 on-site car spaces within the development it complies with the requirements of the Maitland DCP (2011).

The car parking also needs to be in accordance with Australian Standard AS2890.1-2004 and provide as a minimum the following;

- Car park size – 2.4 m x 5.4 m for staff or 2.6 m x 5.4 for visitors
- Aisle width – 5.8 m
- Blind aisle extension – 1 m

A review of the plans indicates minimum car space widths – 2.6 metres, car park lengths 5.4 metres & minimum aisle width of 7 metres. Further a single accessible space is provided with sufficient manoeuvring area to allow convenient forward in and out movements into and out of the car park.

Overall it is concluded the proposed on-site car parking complies with *Australian Standard AS2890.1-2004* which will need to be confirmed at Construction Certificate stage for the development.

2.5.4 Alternative Transport Modes

Hunter Valley Buses provide public transport services in the area. A review of the route maps for the service indicates that the site has good access to public transport (Routes 179, 180, 181, 182 & 183) as shown in the bus route extract shown in ***Figure 2*** below. The buses provided connections to most parts of Maitland as well as Newcastle, Newcastle Airport and Greenhills shopping centre. The development may generate additional demand for public transport travel from staff and visitors but the increase in demand is likely to be very minor. The nearest bus stops are located approximately 50 and 60 metres north-west of the site on High Street on both sides of the road near the Shell Service Station. these are within convenient walking distance of the site. Therefore no additional public transport services or infrastructure is required in the area as the existing services and infrastructure are considered suitable given the additional demand generated by the development is minor.

Pedestrians currently use the existing concrete footpath network along High Street including over the development frontage and the same conditions apply to the opposite side of the road. ***Photograph 4*** below shows the existing conditions over the development frontage. These extend from the site to High Street railway station (see ***Photograph 5***) and to the Maitland Mall. These are considered suitable for the level of additional pedestrian demand resulting from the development therefore no nexus exists for additional pedestrian facilities in the area resulting from this development.

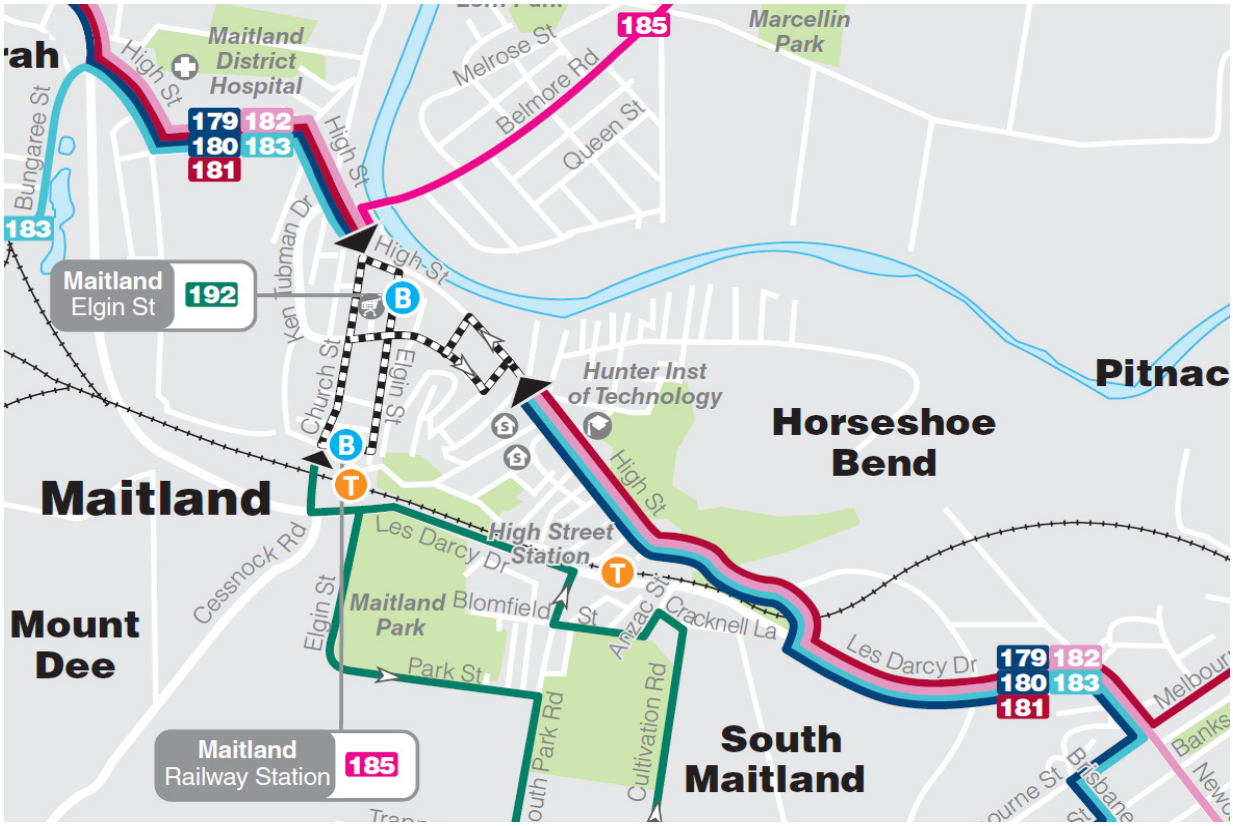


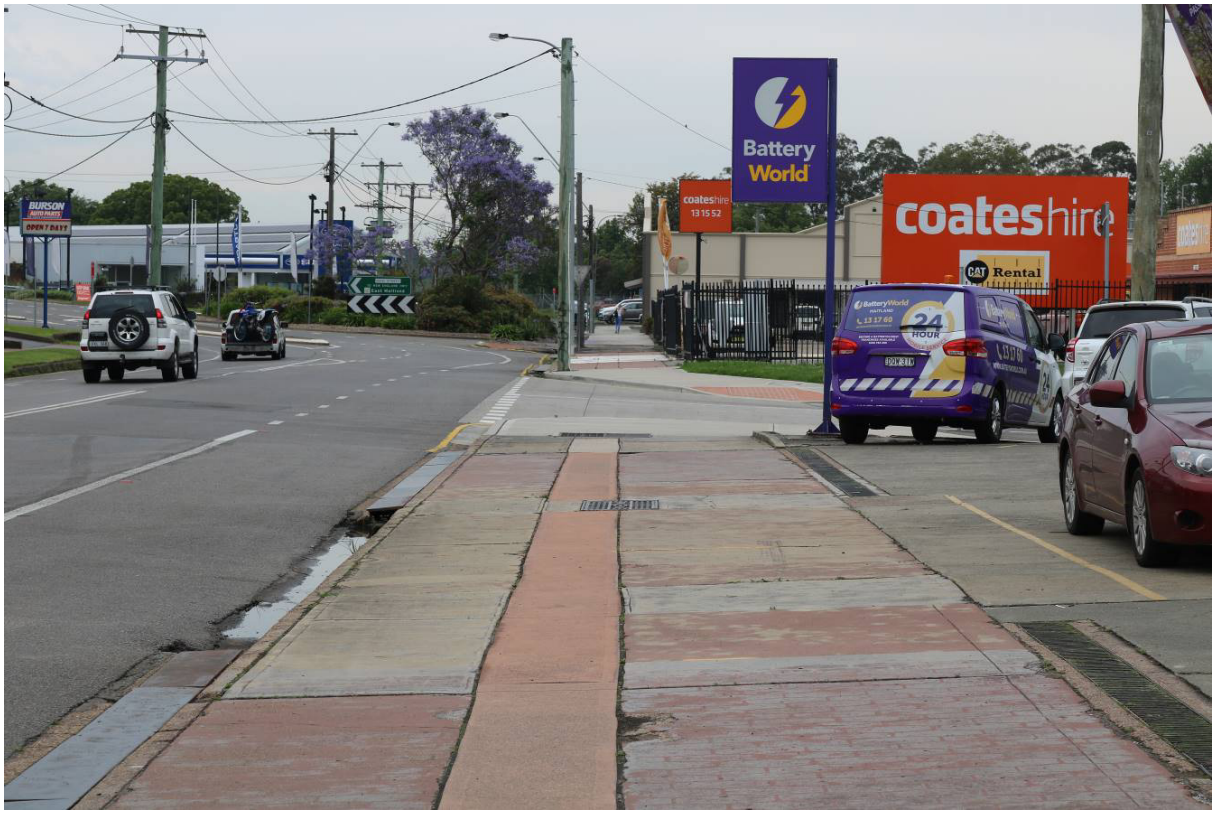
Figure 2 – Extract from Hunter Valley Buses bus route map

Bicycle facilities are not available in High Street with cyclists expected to share the parking lane and travelling lanes. The development may generate some bicycle traffic however the additional demand will not be significant enough to provide a nexus for the provision of additional facilities adjacent to the site.

2.5.5 Servicing

The development has been designed for waste servicing via Council's normal kerbside collection from High Street with tenants required to move their bins out on the kerbside for collection and back in after collection. As a commercial premises other servicing for stationary supplies would be expected to be undertaken by light vehicles using the proposed on-site car parking and be infrequent i.e. maximum 1 a day and 2 a week. Therefore servicing arrangements for the site are considered satisfactory and a designated service bay is not required.

Photograph 4 – Pedestrian footpath High Street – development frontage



Photograph 5 – Pedestrian Pathway to High Street Railway Station.

3. CONCLUSIONS

This traffic and parking assessment for the proposed two-storey commercial building on Lot 1 DP 230063 – 206 High Street, Maitland has concluded:

- High Street has sufficient available spare two-way mid-block capacity to cater for the development;
- The proposal may generate up to an additional 12 vtph in the peak periods on the local and state road network and this additional volume will not impact on the operation of any intersections on the nearby local and state road network;
- The existing western site access is suitable for use by the development as it would comply with the site access requirements of *Australian Standard AS2890.1-2004;*
- As the development provides for 13 on-site car parking spaces including an accessible space the development complies with the on-site car parking requirements of Maitland Council's DCP.
- Servicing arrangements for the site are considered satisfactory.
- As the existing pedestrian infrastructure around the site is considered suitable for the level of additional pedestrian demand resulting from the development no nexus exists for additional pedestrian facilities in the area resulting from this development.
- The development may generate some bicycle traffic however the additional demand will not be significant enough to provide a nexus for the provision of additional facilities adjacent to the site; and
- No additional public transport services or infrastructure is required in the area as the existing services and infrastructure are considered suitable even with the additional demand generated by the development.

4. RECOMMENDATION

Having carried out this traffic and parking assessment for the proposed two-storey commercial building on Lot 1 DP 230063 – 206 High Street, Maitland it is recommended that the proposal can be supported as it is considered it would not adversely impact on the local and state road network and meets all the requirements of Maitland City Council and Australian Standards.

JR Garry BE (Civil), Masters of Traffic
Director
Intersect Traffic Pty Ltd

ATTACHMENT A
DEVELOPMENT PLANS

Rev	Description	Date	Issued By
8	Building Size Rev	08.11.21	M.Marshall
7	DA Submission	28.10.21	M.Marshall
6	Client Review	19.10.21	M.Marshall
5	Client Review	15.10.21	M.Marshall
4	Client Review	15.10.21	M.Marshall
3	Client Review	08.10.21	M.Marshall
2	Client Review	05.10.21	M.Marshall
1	Client Review	24.09.21	M.Marshall

STEVENSGROUP

COPYRIGHT:

Client: STEVENSGROUP

Project: BUSINESS PREMISES

Location:
Lot: 1
No: 206
Street: HIGH STREET
Suburb: MAITLAND
DP: 230063

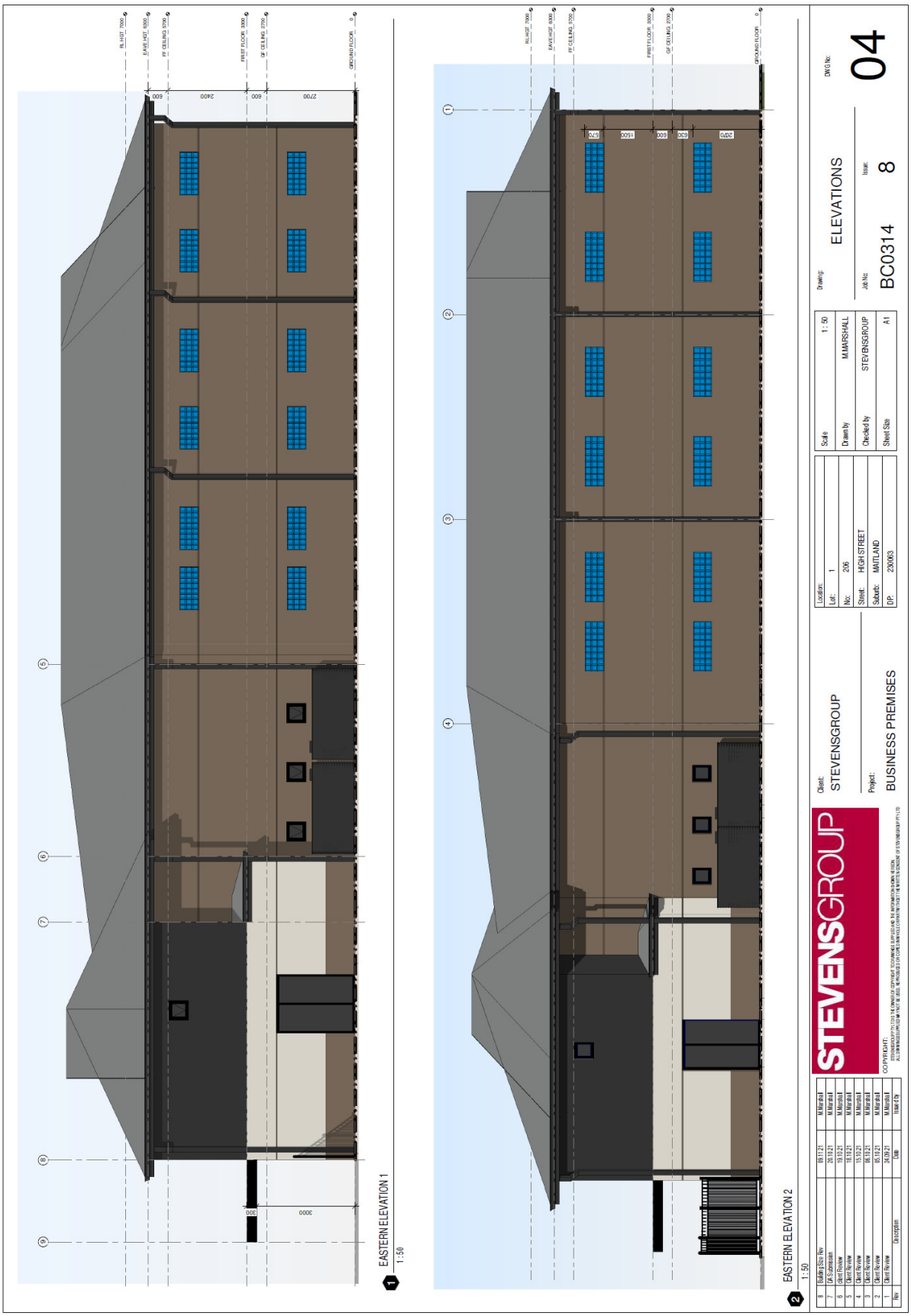
Scale 1 : 100
Drawn by M.MARSHALL
Checked by STEVENSGROUP
Sheet Size A1

Drawing: SITE PLAN

Job No: BC0314

Issue: 8

DWG No: 01


EASTERN ELEVATION 1
1:50
EASTERN ELEVATION 2
1:50
STEVENSGROUP
Client: STEVENSGROUP
Project: BUSINESS PREMISES
Location:
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No: 206
Sheet: HIGH STREET
Suburb: MAITLAND
DP: 230063
Scale 1:50
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Checked by STEVENSGROUP
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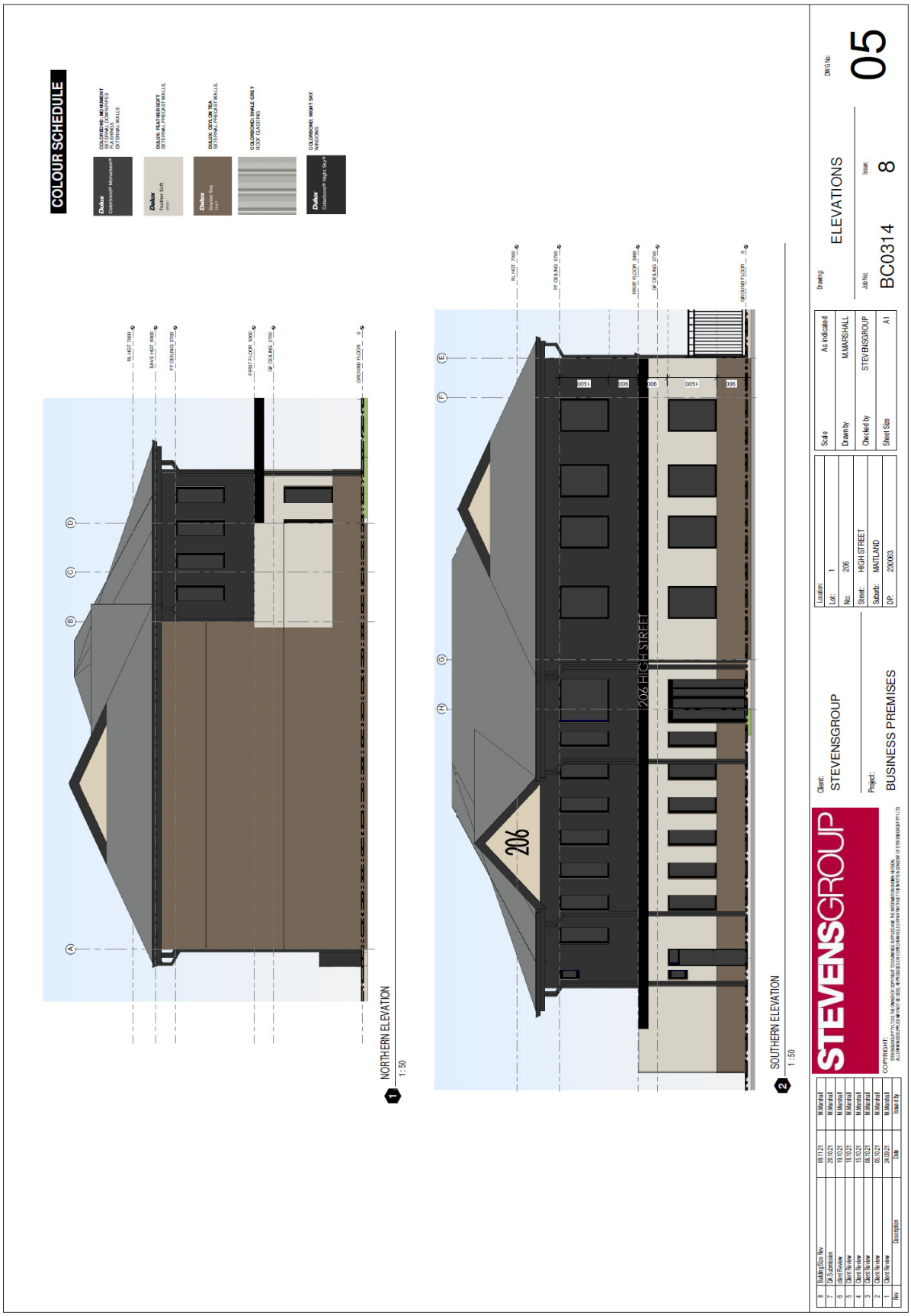
Drawing: ELEVATIONS
Job No: BC0314
Issue: 8
DWG No: 04
COPYRIGHT:


COLOUR SCHEDULE
Dulux
Colorbond Monument
COLORBOND MONUMENT
EXTERNAL DOORS/FRIES
EXTERNAL WALLS
Dulux
Feather Soft
DULUX FEATHERSOFT
EXTERNAL FRIEZE WALLS
Dulux
Elysian Tea
DULUX CEYLON TEA
INTERNAL FRIEZE WALLS
COLORBOND SHALE GREY
FLAT CEILINGS
Dulux
Steelcote Night Sky
COLORBOND NIGHT SKY
WINDOWS
NORTHERN ELEVATION
1:50
SOUTHERN ELEVATION
1:50
206 HIGH STREET
206
STEVENSGROUP
Client:
STEVENSGROUP
Project:
BUSINESS PREMISES
Location:
Lot: 1
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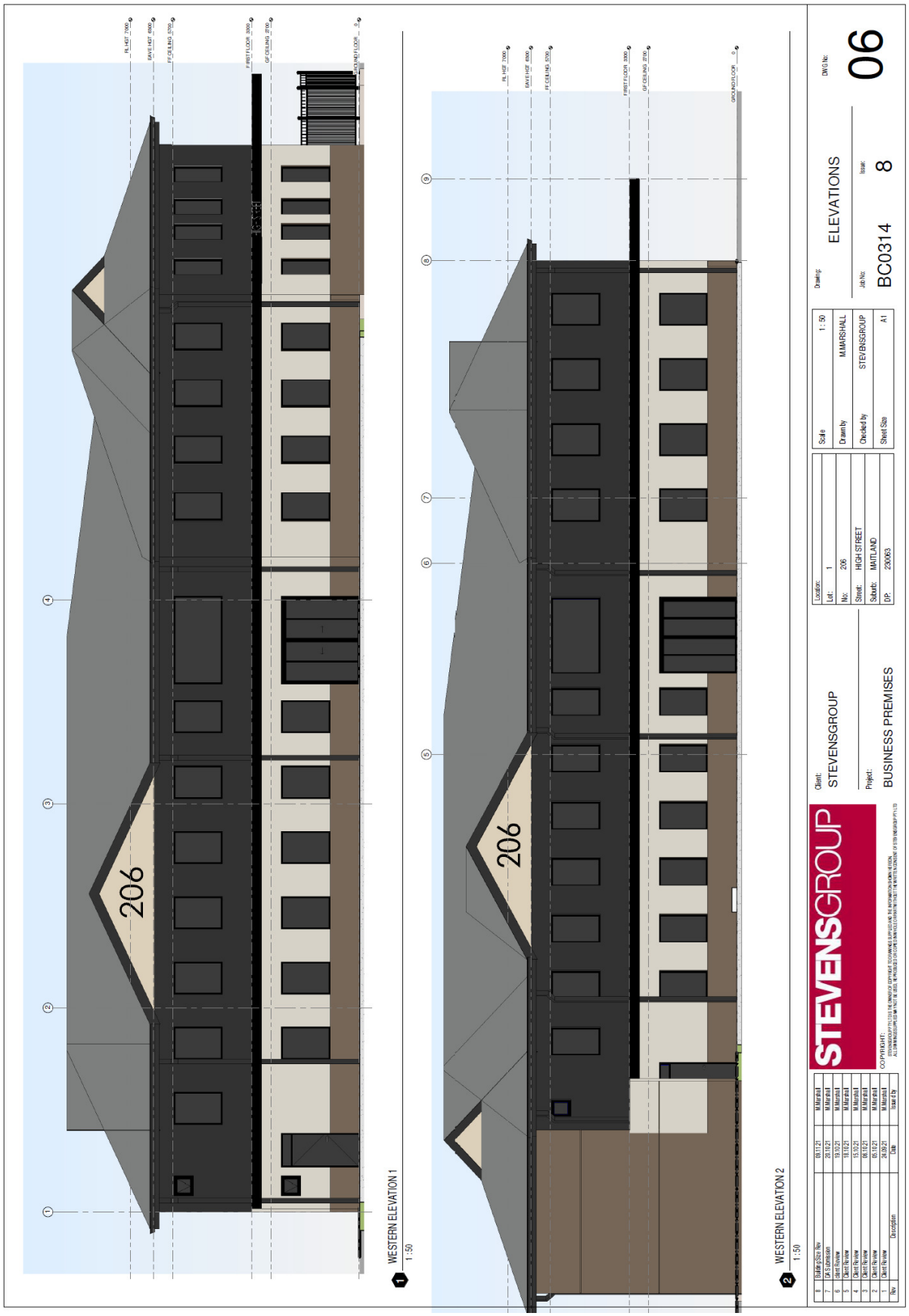
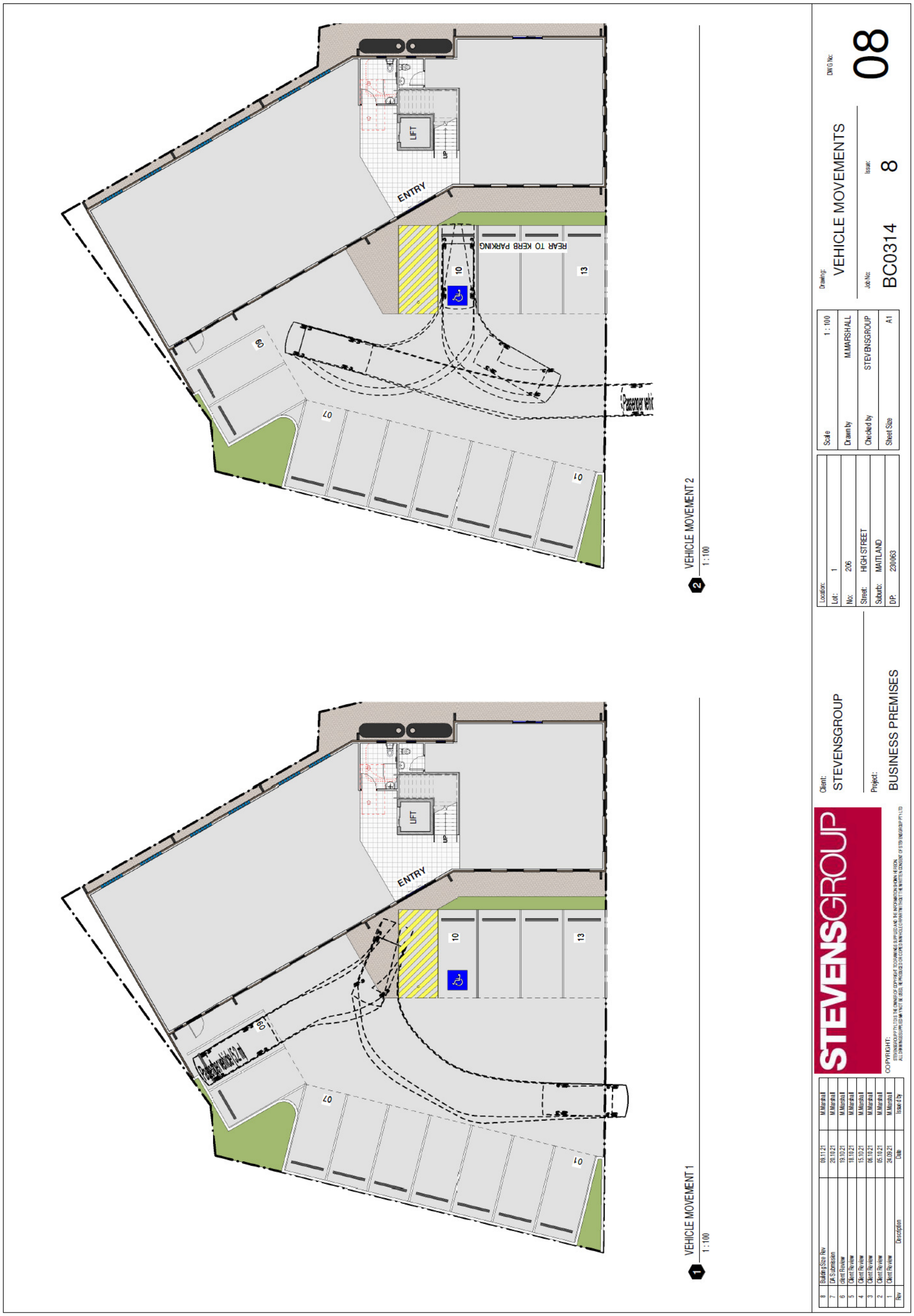
Street: HIGH STREET
Suburb: MAITLAND
DP: 200063
Scale: As indicated
Drawn by: M.MARSHALL
Checked by: STEVENSGROUP
Sheet Size: A1
Drawing: ELEVATIONS
Job No: BC0314
Issue: 8
DWG No: 05
COPYRIGHT:



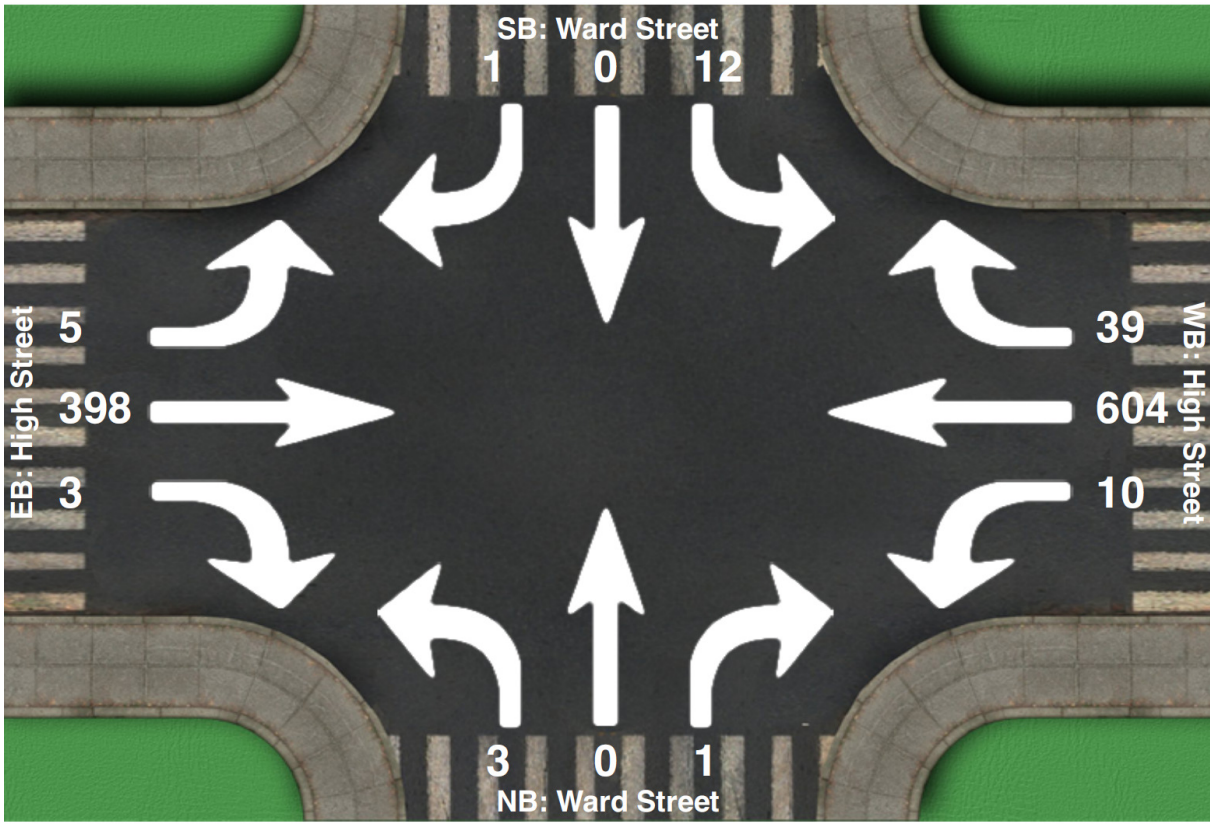
Rev	Description	Date	Issue'd by
8	Building Space Rev	09.11.21	M.Marshall
7	DA Submission	29.10.21	M.Marshall
6	client Review	19.10.21	M.Marshall
5	Client Review	18.10.21	M.Marshall
4	Client Review	15.10.21	M.Marshall
3	Client Review	06.10.21	M.Marshall
2	Client Review	15.10.21	M.Marshall
1	Client Review	24.09.21	M.Marshall


VEHICLE MOVEMENT 1
1:100
VEHICLE MOVEMENT 2
1:100
ENTRY
LIFT
UP
REAR TO KERB PARKING
STEVENSGROUP
Client:
STEVENSGROUP
Project:
BUSINESS PREMISES
Location:
Lot: 1
No: 206
Street: HIGH STREET
Suburb: MAITLAND
DP: 230063
Scale 1 : 100
Drawn by M.MARSHALL
Checked by STEVENSGROUP
Sheet Size A1
Drawing:
VEHICLE MOVEMENTS
Job No:
BC0314
Issue:
8
DWG No:
08

ATTACHMENT B
TRAFFIC COUNT DATA

Intersection Peak Hour

Location: Ward Street at High Street, Maitland
GPS Coordinates: Lat=-32.738861, Lon=151.562165
Date: 2021-11-11
Day of week: Thursday
Weather:
Analyst: Jeff



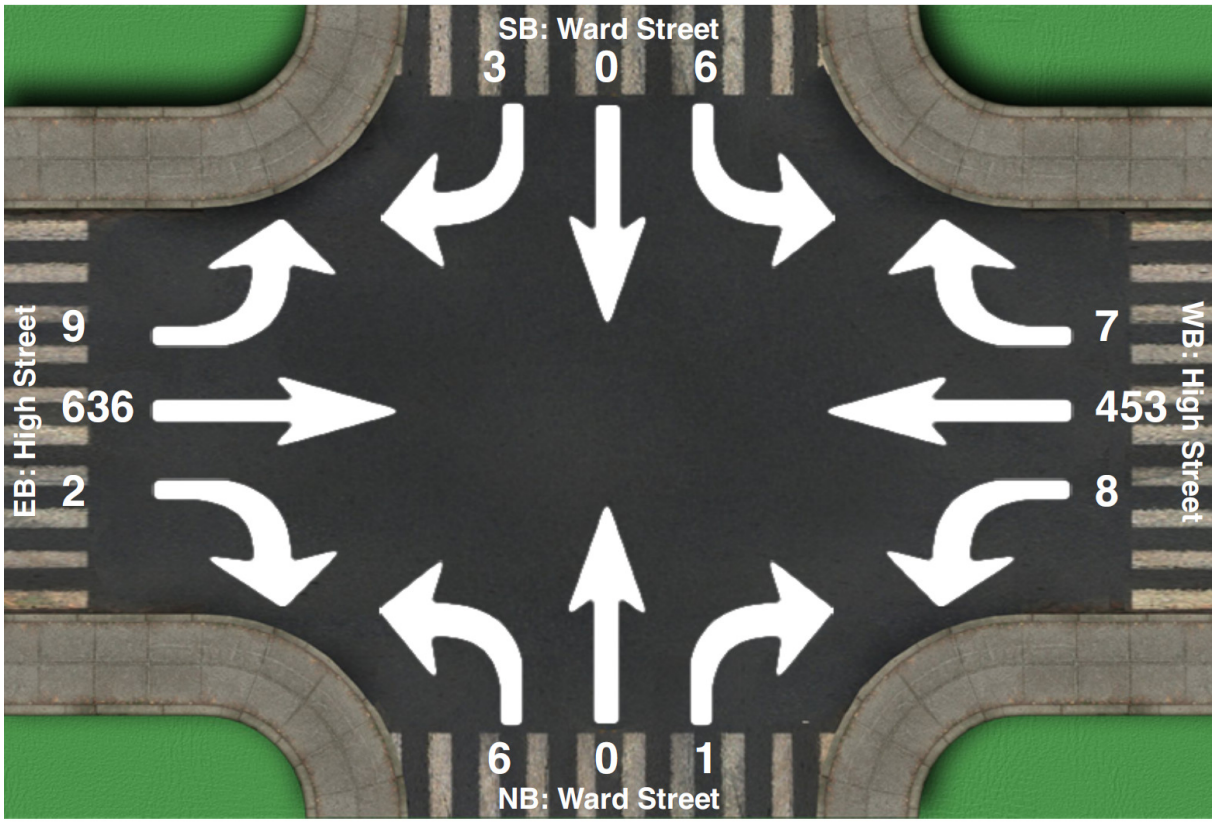
Intersection Peak Hour

08:00 - 09:00

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	12	0	1	10	604	39	3	0	1	5	398	3	1076
Factor	0.75	0.00	0.25	0.50	0.92	0.75	0.75	0.00	0.25	0.62	0.81	0.38	0.86
Approach Factor	0.81			0.90			0.50			0.80			

Intersection Peak Hour

Location: Ward Street at High Street, Maitland
GPS Coordinates: Lat=-32.739922, Lon=151.563250
Date: 2021-11-11
Day of week: Thursday
Weather: Wet
Analyst: Jeff



Intersection Peak Hour

15:15 - 16:15

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	6	0	3	8	453	7	6	0	1	9	636	2	1131
Factor	0.50	0.00	0.75	0.67	0.79	0.58	0.75	0.00	0.25	0.75	0.86	0.25	0.92
Approach Factor	0.56			0.81			0.58			0.86			