

7 February 2022

P2271 PP McFarlanes Rd Berry Park subdivision

Perception Planning  
Maitland Road  
Mayfield NSW

**Attn: Katrina Walker**

Dear Katrina,

### **Proposed McFarlanes Road Berry Park, NSW.**

We have now completed our site work and review of the documentation provided for the proposed residential subdivision at 349 McFarlanes Road, Berry Park and provide the following traffic impact statement to support the subdivision of land in this location. This assessment has been prepared taking into consideration the Austroads Guidelines and Section 2.3 of the RTA Guide to Traffic Generating Developments (GtTGD), which provides the structure for the reporting of key issues to be addressed when determining the impacts of traffic associated with a development.

### **Background**

The subject site is located at the northern end of Red Baron Road and Meadowhawk Street, as shown below in Figure 2 and 2.

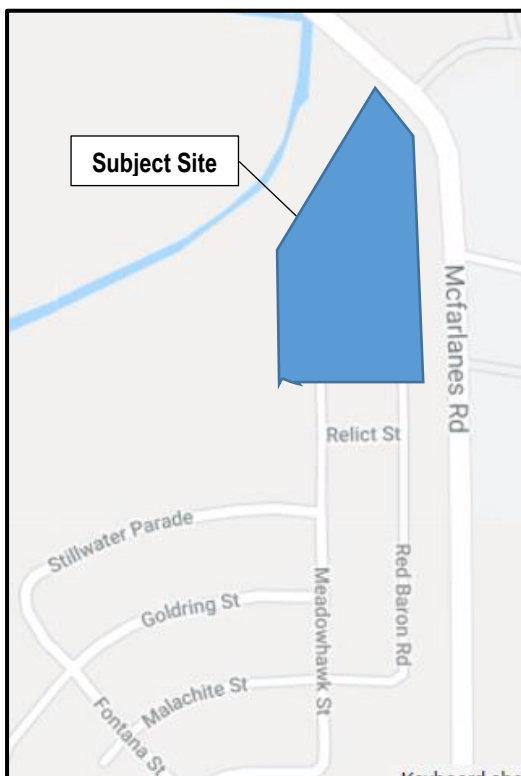


Figure 1 – Subject site in the context of the local road network

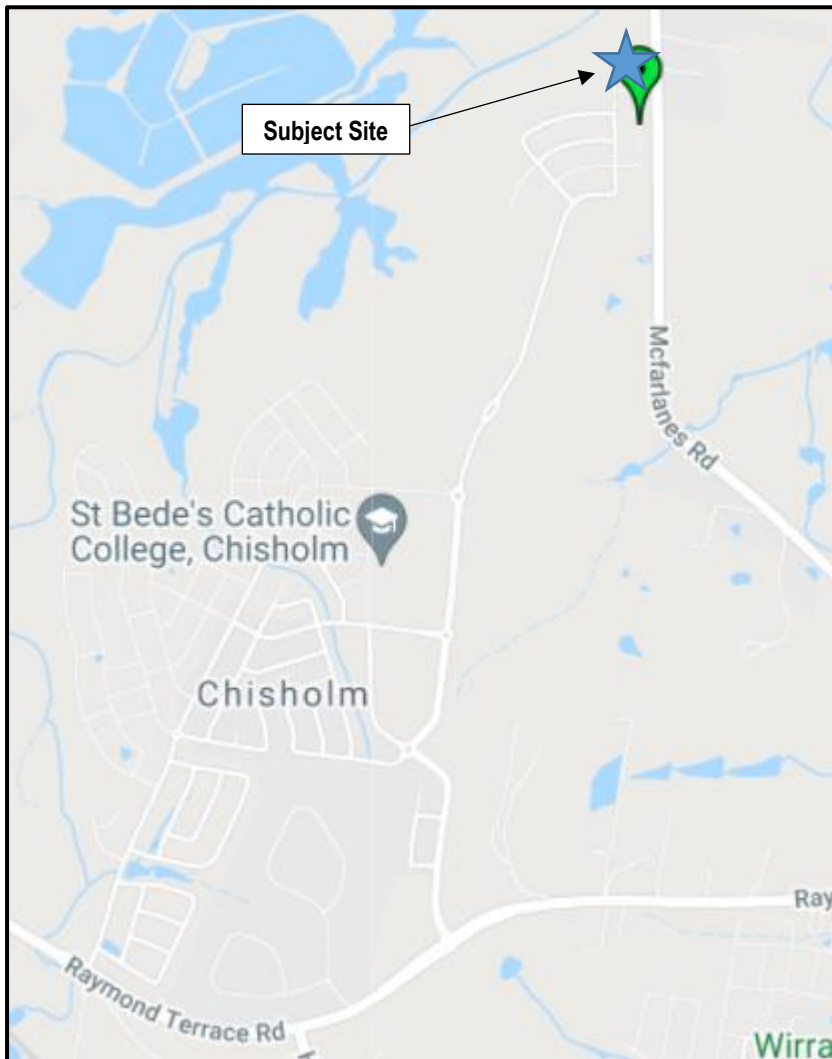


Figure 2 – Subject site in the context of the broader road network

The subject site is a rural holding with a single residential dwelling and associated outbuildings. The surrounding land to the east and north is rural land whilst to the south is the low density residential development associated with Chisholm urban release area. To the west is low lying land associated with the Hunter River.

The existing site has frontage to McFarlanes Road only with a single access however the residential streets (Red Baron Road and Meadowhawk Street) both terminate on the southern side of the site.

### Road Hierarchy

**Raymond Terrace Road** is the major road passing through the locality. It forms part of the state road network (MR104) and provides the primary link between Raymond Terrace to the east and East Maitland to the west. In the vicinity of the site, it operates under the posted speed limit of 80km/hr and generally provides a single lane of travel in each direction with a cycle lane marked in the wide shoulders that also caters for vehicle breakdowns. Kerb and guttering is provided along the road in the vicinity of the estate however there is no kerb and guttering to the east and west reflecting its rural nature.

Raymond Terrace Road connects with **Settlers Boulevard** via a three-way signal-controlled intersection. Settlers Boulevard is a local collector road which provides the main access road into the Chisholm residential area and provides a high standard as a residential access road with the carriageways separated by a vegetated median along its southern length. There is no median as the road travels north. It has a generally north-south orientation. At its southern end it provides two lanes of travel in both directions to maximise the capacity of the traffic signals at Raymond Terrace Road, but further into the residential area it provides a single lane of travel, with a marked cycle lane and a parking lane provided along its length.

**Harvest Boulevard** is a local road which connects with Raymond Terrace Road via a signal-controlled T-intersection which allows for all turning movements. It also operates as a trunk collector or spine road through the housing estate and allows for one lane of travel in each direction, with a sealed pavement width in the order of 12.5 metres along the majority of its length providing a parking lane and marked cycle lane on each side. These terminate before the intersection with Raymond Terrace Road, allowing sufficient width for two dedicated turn lanes to provide for the left and right turning manoeuvres. Kerb and guttering is provided along both sides of Harvest Boulevard with a footpath on the eastern side and a 2.5m wide shared path on the western side. There is no posted speed limit at the entry to the estate however the urban speed limit of 50km/hr is considered appropriate.

At its most northern end, Settlers Boulevard turns east and then north to become **Meadowhawk Street**. Meadowhawk Street is a local residential street with a width in the order of 8.75 metres. It allows for two-way movement and parking is permitted along its length. It has street lighting, kerb and guttering and a footpath along its western side. Meadowhawk Street intersects with Red Baron Road at a four way give way controlled intersection with Meadowhawk Street having priority.

**Red Baron Road** is also a local residential street with a width in the order of 7.6 metres allowing for two-way movement. Except for controls at intersections and driveways parking is generally permitted along its length with street lighting and kerb and guttering provided. There is a footpath along the western side of Red Baron Road. Both Red Baron Road and Meadowhawk Street terminate at their northern end.

Other roads in the locality are residential roads allowing for access to the on-going residential development in the Chisholm area.

### Current Road Network Operation

The current road network operates very well with minimal delays and congestion. There has been extensive traffic modelling completed as part of the overall development in this area which has determined appropriate intersection controls and capacity requirements. The provision of the traffic signals at the intersection of Raymond Terrace Road and Settlers Boulevard and Raymond Terrace Road and Harvest Boulevard has been determined based upon this modelling and has allowed for the development throughout the urban release area as well as the overall development along Raymond Terrace Road.

Within the vicinity of the site the local road network is continuing to be developed with extensive housing being built throughout this area.

As a collector road, Settlers Boulevard has an expected daily traffic flow of between 3,000 and 5,000 vehicles per day (vpd) once the Chisholm suburb is fully developed. Traffic flows surveyed at the southern end of Harvest Boulevard in February 2020 indicated daily flows in the order of 6000 vpd reflecting the extensive development already completed in this western side of the suburb.

Traffic flows along Raymond Terrace Road are much higher, and as part of the development of Thornton North and Chisholm the traffic modelling completed has identified appropriate road upgrades to maintain capacity along this important road link.

Observations at the intersections of Raymond Terrace Road and Settlers Boulevard and Raymond Terrace Road and Harvest Boulevard indicate that these intersections operate with low delays and have adequate spare capacity to allow for the on-going planned development in this area.

Flows on the various local streets including Red Baron Road and Meadowhawk Street are low, reflecting their role in the road hierarchy and the lack of through traffic using these streets.

Daily traffic movements are reasonably balanced in both directions. There is a bias in traffic heading south in the morning and the reverse in the afternoon, associated with commuter trips from this residential area to major centres such as Greater Newcastle, Maitland and Rutherford.

No speed surveys were completed as part of the study work. However, it is considered that drivers does not speed in this location due to interaction with the various intersections along the roads.

A review of Transport for NSW accident data shows there have been no accidents within the vicinity of the site in the past five years. Given that the area surrounding the site is only recently developed it can be seen that currently there are minimal traffic flows at this location. The design of these roads is in accordance with Council requirements and provide a clear layout for all road users. As such it is considered that road safety in the vicinity of the subject site is very good and will continue to be in the future.

### Public Transport

The most convenient railway station in the vicinity of the subject site is at Thornton, approximately 6 kms to south of the subject site. Thornton railway station is serviced by the Hunter Line which allows for train connections to Newcastle and on to Sydney as well as connections to Maitland and beyond (Scone and Dungog) on a regular basis.

Bus stops are provided through the suburb of Chisholm with one located on Dragonfly Drive north of St Bedes College. Stops are also available along Settlers Boulevard to the south of the site. It is anticipated that bus services shall continue to be reviewed and expanded to allow for increased future demands.

There are pedestrian footpaths along the various local streets with Stillwater Parade/Fontana Street and Settlers Boulevard having a shared pathway to accommodate both pedestrians and cyclists. Settlers Boulevard also has a marked on-road cycling lane in each direction.

### Other Developments

Ongoing development will see the release of further residential lots. Modelling has been undertaken as part of the approvals for these land releases with ongoing upgrades to roads provided for in S7.11 contributions.

### Parking

On-street parking is available along the local roads surrounding the site with typical restrictions associated with driveways and intersections. There is a parking lane marked along Settlers Boulevard with no formal line marking along other local streets with vehicles able to park adjacent to the kerb. Minimal demands for on-street parking was observed with parking provided within most lots, except in conjunction with construction workers building houses.

### Proposed Development

The proposed development is for a 1 into 29 lot residential subdivision allowing for low density residential development.

A concept plan for the proposed development is included in **Attachment B**.

### Access

Access to the development is proposed through the extension of Meadowhawk Street and Red Baron Road. There is no access proposed to McFarlanes Road as part of this development.

As part of the project work, Seca Solution has reviewed the sight lines along both Meadowhawk Street and Red Baron Road. Both streets provide a straight and flat road alignment in this location, which ensures that there is appropriate visibility for vehicles along these roads. As the new subdivision roads are an extension of these there is no sight distance requirements for the subdivision.

Sight distance requirements for domestic driveways are prescribed by Australian Standard AS2890.1:2004 Parking Facilities (Off-street Car Parking), which requires a minimum sight distance of 40 metres for the posted speed limit of 50 km/hr. These can be achieved for individual lots and will be subject to assessment in conjunction with individual development applications.

Each road shall terminate with Red Baron Road providing a cul de sac end treatment and Meadowhawk Street providing for a suitable turn treatment to enable service vehicles (garbage trucks etc) to undertake a suitable manoeuvre to egress the street in a forward direction. Servicing for the various lots is expected to be minimal, primarily deliveries in vans or similar with the occasional larger delivery vehicle and weekly kerbside waste collection.

### Parking

The Maitland Development Control Plan 2011 nominates parking for a residential dwelling to be provided as 1 space per dwelling.

Parking for individual lots shall be subject to separate development applications.

All parking is able to be contained within the overall site.

### Traffic Analysis

#### Traffic Generation

The Guide to Traffic Generating Developments updated surveys specifies the following traffic generation rates for a residential development in regional areas:

- AM peak hour trips - 0.71 trips per dwelling
- PM peak hour trips - 0.78 trips per dwelling
- Daily rates 7.4 trips per day

Allowing for the development of 29 lots and making no concession for the existing dwelling given access is to McFarlanes Road, the proposal could generate up to:

- 21 trips during the morning peak
- 23 trips during the evening peak.
- 215 trips daily

Residential developments typically see 20% of traffic inbound and 80% outbound during the morning peak with the reverse in the afternoon.

This could see the development generating:

- 4 inbound/17 outbound trips in the morning peak hour
- 18 inbound/5 outbound trips in the afternoon peak hour

### Traffic Distribution

Of the 29 lots 28 provide for new low-density dwellings with 4 of these accessing directly Meadowhawk Street and 24 having frontage to Red Baron Road.

The distribution of traffic will therefore see these lots using these individual streets however connecting at the southern end of Meadowhawk Street to travel along Settlers Boulevard. Within the Chisolm housing development there are a number of routes traffic can take to connect with the broader road network being Raymond Terrace Road. Such trips are likely to depend upon detours to schools and childcare centres or for traffic with a destination or origin to the west. Such trips may distribute over various streets to Harvest Boulevard whilst traffic with an ultimate destination to the east or south east, or with no need for detours within the housing area, is most likely to stay on Settlers Boulevard to use the signalised intersection with Raymond Terrace Road.

At the intersection of Raymond Terrace Road trips would be distributed to both the east and west.

Overall, this may see at worst 21 additional trips in the AM peak and 23 in the PM peak using the signalised intersection of Settlers Boulevard and Raymond Terrace Road.

The Thornton North Urban Release Area (Figure 3) includes the subject site which has been identified as part of the Waterford Country North Precinct 5. This area has been included in forward planning for the area including the intersection of Settlers Boulevard and Raymond Terrace Road which has been designed and modelled to accommodate the demands of the Master Plan, allowing for the ongoing development as well as background growth through this intersection.

Observations on site show that this intersection operates very well, with minimal delays and congestion. Whilst traffic movements through this intersection will increase over time, due to the on-going development planned in this area, it is considered that the original planning for the traffic signals allowed for the expected traffic growth in this area and as such will continue to have adequate capacity in the critical peak periods associated with the proposed development. It is considered that the traffic movements associated with the subject site shall have a minor impact upon the operation of this intersection with the additional demands for turning movements able to be adequately accommodated.



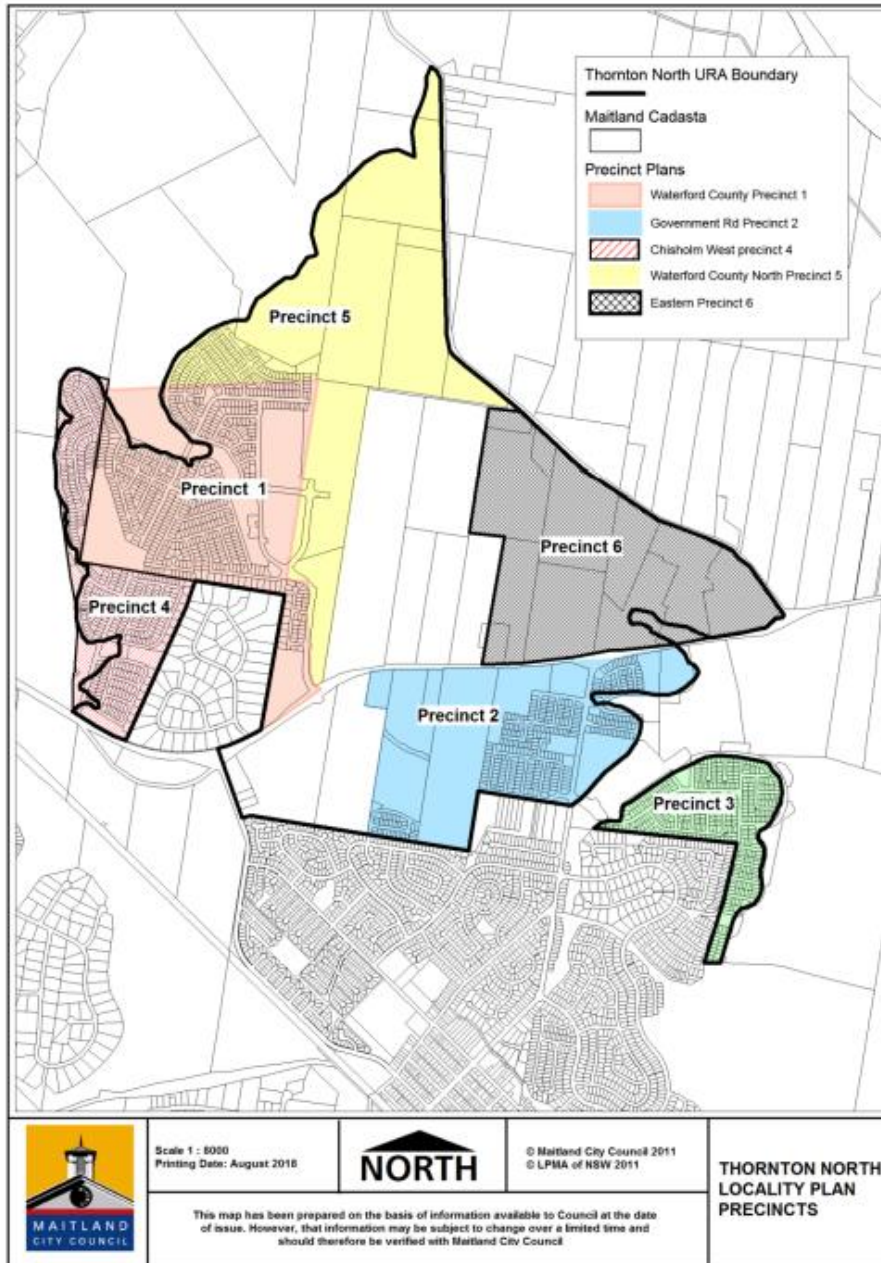


Figure 3 Thornton North Urban Release Area (source MDCP)

### Impact on Daily Traffic Flows

The development could result in an increase in peak hour flows along the local streets immediately surrounding the site as well as on Settlers Boulevard south of Meadowhawk Street. Traffic flows in this location could increase by an additional 21 trips in the AM, 23 trips in the PM and 215 trips daily (108 inbound and outbound each day). Settlers Boulevard is currently well within its capacity as an urban road having been designed to accommodate significant future development.

On Raymond Terrace Road traffic flows could increase 108 trips two way per day to the east or west of the Settlers Boulevard intersection and up to 12 trips two way in either peak period.

The impact of these additional trips will have a minimal impact on the overall road network both within the Chisolm residential area and on Raymond Terrace Road.

## Conclusion

Overall, the proposed development of a 1 into 29 lot subdivision will have a minimal and acceptable impact upon traffic in the local area with no impediment to approval. The proposal forms part of the overall masterplan for the area and traffic modelling previously completed has determined the road upgrade requirements and appropriate monetary contributions will be made as part of the project.

Access to the site can be provided through the extension of Red Baron Road and Meadowhawk Street with both roads as dead ends being designed to allow for the turning movements of service vehicles including garbage trucks.

Future parking and access to individual lots shall be assessed in conjunction with development applications for future dwellings however all parking can be contained within the subject site and access can be achieved as proposed.

Please feel free to contact our office on 4032 7979 should you require any additional information.

Yours sincerely



**Sean Morgan**

*Director*



Attachment A – Site Photos



Photo 1 – Looking south along Red Baron Road from subject site showing typical cross section



Photo 2 - Cross section of Meadowhawk Street looking north with subject site at end of street

Attachment B: Concept Plan

