Councillors,

In accordance with section 367 of the Local Government Act, 1993 notice is hereby given that a Briefing Committee Meeting will be held on:

**DATE:** Tuesday 17 May 2016

**TIME:** to follow the Public Voice Committee

**VENUE:** Council Chambers
2nd Floor
City Hall
290 King Street
Newcastle NSW 2300

Frank Cordingley
Interim Chief Executive Officer

City Administration Centre
282 King Street
NEWCASTLE NSW 2300

Friday 6 May 2016

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BRIEFING COMMITTEE REPORTS

ITEM-4 BR 17/05/16 - TRANSPORT FOR NSW - WICKHAM TRANSPORT INTERCHANGE PROJECT

REPORT BY: INFRASTRUCTURE

CONTACT: ACTING DIRECTOR INFRASTRUCTURE / ACTING MANAGER INFRASTRUCTURE PLANNING

PURPOSE

Transport for NSW provide a full project briefing on the Wickham Transport Interchange Project (WTIP).

BACKGROUND

Transport for NSW has engaged Laing O'Rourke to build a new Transport interchange at Wickham. Transport for NSW has also engaged Jacobs Engineering Group to undertake the Wickham Precinct Traffic Study to broadly analyse the traffic and transport access requirements for the new interchange.

The draft Wickham Precinct Transport Study was submitted to Council for comment in January 2016. Council has submitted a response to Transport for NSW tabling issues pertaining to assumptions and lack of detail surrounding proposed changes to traffic flows in Charles and Station Streets and the resumption of parts of Station Lane and Station Street that currently reside on Transport for NSW land.

Representatives from Laing O'Rourke provided a briefing to the Newcastle City Traffic Committee (NCTC) at its meeting on 15 February 2016. Proposed changes to the local road network and subsequent issues relating to the draft report were discussed in efforts to promote further investigation and consultation between Transport for NSW and Newcastle Council.
As a result of the NCTC discussion, endorsement of proposed changes and reconfiguration of Station Street Wickham and associated WTIP works were recommended to lay on the table subject to a response from Transport for NSW to Council from on its correspondence dated 25 January 2016. Furthermore, the committee recommended that an invitation be extended to Transport for NSW through Laing O'Rourke to provide a full project briefing to Council.

RECOMMENDATION

The briefing be received.

REFERENCES

ATTACHMENTS

Attachment A: Jacobs Wickham Precinct Transport Study 2-Final Draft January 2016
Attachment B: Letter to Transport for NSW - Wickham Transport Study January 2016
Attachment A: Jacobs Wickham Precinct Transport Study 2-Final Draft
January 2016
Wickham Precinct Transport Study
Transport for New South Wales

2 | Final Draft
13 January 2016
Wickham Transport Interchange

Project no: IA088900
Document title: Wickham Precinct Transport Study
Document No.: 2
Revision: Final Draft
Date: 13 January 2016
Client name: Transport for New South Wales
Project manager: Amy Gregg
Author: Amy Gregg / Nick Buchanan
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Document History and Status

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Important note about this report

The assumptions and/or limitations that apply to this report are as follows:

- No traffic surveys or traffic modelling has been undertaken as part of this study
- The study has been undertaken using the plans and drawings provided. No consolidated concept plans of the transport interchange including the light rail and train line were available
- All traffic data included within this study has been obtained from reports and studies provided by TfNSW and is considered accurate for the purposes of this report
- The report should be read in full with no excerpts to be representative of the findings
1. Introduction

1.1 Scope

This Wickham Precinct Transport Study is being undertaken by Jacobs (Australia) Pty Ltd on behalf of Transport for New South Wales (TfNSW) in order to broadly analyse the traffic and transport access requirements to the Wickham Transport Interchange. The study focuses on the Wickham precinct, and identifies issues for further consideration regarding access to the new interchange.

The new Wickham Transport Interchange will be located on the western side of Stewart Avenue and will require access to the new station concourse for pedestrians and cyclists. Station Street will be used for vehicular access, taxis and kiss and ride activity. In order to accommodate access to the new interchange, this transport study aims to show how all vehicle movements and transport modes will access the interchange area.

1.2 Outcomes

The key outcomes for the study are to:

- Present the access arrangements through the Wickham precinct to the new transport interchange;
- Consider the need for vehicular traffic (including access to private properties as well as access to the interchange), pedestrians, cyclists and buses/coaches through Wickham;
- Develop options to provide high quality and safe amenity to access the interchange from the surrounding streets within Wickham;
- Ensure good integration between all transport modes; and
- Minimise impacts on traffic in the surrounding road network of Wickham.

1.3 Study Area

The Wickham precinct, as defined for the purposes of this study, is shown below in Figure 1.1.
This study focuses on the operational phase of the interchange. Construction details of the interchange are included within the Review of Environmental Factors (REF) as part of the development application.

1.4 Background Documents

To date a number of studies have been undertaken in relation to either the transport interchange project or the proposed light rail project. A summary of the studies is included below and data within these reports has been used within this study.


The Newcastle Cycling Strategy and Action Plan sets out key objectives for cycling in Newcastle which are as follows:

- "To provide a safe, continuous and convenient bicycle network and associated infrastructure, that riders feel safe and comfortable using;"
- "To promote integration of cycling with land use planning and with other modes of transport, in Council's activities and though advocacy to other levels of government;"
- "To foster a culture that regards to active transport such as walking and bike riding as the preferred choice for short trips; and"
- "To encourage awareness and consideration among all road and path users."

The introduction of the Wickham Interchange would provide an excellent opportunity to encourage active transport to / from the interchange by ensuring that safe and convenient infrastructure and facilities are
provided. Therefore, it is important that appropriate infrastructure to support this mode of access is incorporated into development of the Wickham Transport Interchange.

**Wickham Transport Interchange, Review of Environmental Factors, Main Volume – GHD for TfNSW, July 2014**

The Review of Environmental Factors (REF) considers the potential benefits and impacts of the construction and operation of the Wickham Transport Interchange.

With regard to traffic and transport impacts within the Wickham precinct, the REF outlines that changes to some local roads in Wickham would be required to construct and operate the interchange. Traffic flows along sections of Charles Street and Station Street are proposed to become one-way. The width of Station Street would need to be reduced to accommodate the interchange, which would result in the loss of up to approximately 75 on-street car parking spaces, however there was considered to be sufficient parking in surrounding areas to accommodate this loss.

**Wickham Transport Interchange, Traffic Impact Assessment – GHD for TfNSW, July 2014**

This Traffic Impact Assessment (TIA) was undertaken by GHD in July 2014 to support the REF for the proposal to truncate the Newcastle Branch Line at Wickham and deliver the new station and transport interchange. The TIA assesses the potential traffic and transport impacts of the project and presents the anticipated operational trips and distribution across Wickham.

**Wickham Parking Study (Stage 2) – The City of Newcastle, October 2014**

A resident parking scheme was introduced in Wickham in April 2012 and this Stage 2 study was in response to additional concerns received by the Council regarding parking in Wickham. Following consultation with residents and businesses in Wickham, 2 hour resident parking zones, disabled parking zones and No Stopping zones were recommended at various locations throughout Wickham. The study also identifies light traffic thoroughfares within Wickham that have now been implemented.

**Wickham Transport Interchange, Review of Environmental Factors, Submissions Report – GHD for TfNSW, November 2014**

The Submissions Report documents and responds to submissions received during the public display of the REF. A total of 280 submissions were received, including one from the City of Newcastle Council. Resulting changes from the consultation period are outlined later in this document.

**Wickham Transport Interchange Project, Proposed Wickham Station, Pedestrian Static Analysis – AECOM, March 2015**

This report presents the pedestrian static capacity assessment that looks at whether the provision for pedestrian spatial requirements within the interchange is within acceptable limits, identifies areas of the interchange that may be under stress with future year forecast demand and provides recommendations. The analysis only addresses pedestrian activity within the interchange facility.

**Newcastle Urban Transformation and Transport Program, Wickham Precinct Traffic Study, Scope Definition – TfNSW, May 2015**

The Scope Definition defines a scope of works for the traffic and transport access requirements to the Wickham Interchange and identified issues for further consideration. It has been used as the base for scoping discussion for this Transport Study however scoping meetings have further refined the scope of works for this Study.

**Technical Note on Current Modelling to Date – GHD, 15 July 2015**

This technical note details the microsimulation modelling of the Light Rail project up to July 2015. Where relevant to this study, this technical note has been referenced.
Newcastle City Centre Traffic Modelling, Traffic Impacts for the Revised Definition Design for Newcastle Light Rail, Draft – GHD, 18 September 2015

The report presents the updated, extended, calibrated and validated traffic model, which was then used to test various scenarios to determine the impacts of the light rail system on the road network in order to support the planning and concept design phase of the light rail system. Where relevant to this study, this technical note has been referenced.
2. Existing Conditions

This section provides a summary of the existing road network, traffic volumes, parking, pedestrian, cycling, public transport and goods vehicle infrastructure within the study area.

2.1 Existing Road Network

The key access roads within the study area comprise a combination of regional and local roads. These roads are briefly described in Table 2.1.

Table 2.1: Overview of Wickham Precinct Road Network

<table>
<thead>
<tr>
<th>Key link</th>
<th>Function</th>
<th>Configuration, Frontages and Land Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hannell Street</td>
<td>Sub-arterial road</td>
<td>Four lane dual carriageway with limited access</td>
</tr>
<tr>
<td>Honeysuckle Drive</td>
<td>Sub-arterial road</td>
<td>Two lane road with sections of dual carriageway to the east of the study area</td>
</tr>
<tr>
<td>Station Street</td>
<td>Local road</td>
<td>Two lane unmarked road immediately north of and parallel to the railway line between Railway Street and Stewart Avenue. Generally residential uses on the northern side.</td>
</tr>
<tr>
<td>Railway Street</td>
<td>Local road</td>
<td>Two lane unmarked road on the western edge of the study area. Predominantly light industrial uses with a small amount of residential properties.</td>
</tr>
<tr>
<td>Albert Street</td>
<td>Collector road</td>
<td>Two lane road on the northern edge of the study area. Mixture of light industrial, commercial and residential land uses.</td>
</tr>
<tr>
<td>Church Street</td>
<td>Local road</td>
<td>Two lane unmarked road. Mixture of light industrial, commercial and residential land uses.</td>
</tr>
<tr>
<td>Throsby Street</td>
<td>Local road</td>
<td>Two lane unmarked road with a signalised intersection at Hannell Street providing entry and exit into Wickham. Primarily commercial uses however some residential dwellings are present. Two hour parking restrictions are located along much of the southern frontage.</td>
</tr>
<tr>
<td>Bishopsgate Street</td>
<td>Local road</td>
<td>One-way eastbound between Railway Street and Charles Street. Primarily residential with some commercial premises. Identified as a light vehicle thoroughfare.</td>
</tr>
<tr>
<td>Union Street</td>
<td>Local road</td>
<td>North-south street through the centre of the precinct. It is two-way, has footpaths on both frontages and is primarily residential.</td>
</tr>
<tr>
<td>Wickham Street</td>
<td>Local road</td>
<td>Two lane unmarked road with residential and commercial uses along its frontages.</td>
</tr>
<tr>
<td>Charles Street</td>
<td>Local road</td>
<td>Two lane unmarked road with primarily commercial uses.</td>
</tr>
<tr>
<td>Dangar Street</td>
<td>Local road</td>
<td>Short cul-de-sac off Charles Street which is blocked off to vehicular traffic at Hannell Street. It has three residential dwellings and footpaths and parking on both frontages.</td>
</tr>
</tbody>
</table>
2.2 Existing Traffic Volumes

Traffic data has been combined and consolidated from various studies that have been undertaken in and around the Wickham precinct to date. Existing traffic volumes and their source is included below in Table 2.2.

Table 2.2: Traffic Volumes

<table>
<thead>
<tr>
<th>Key link</th>
<th>Traffic Volume</th>
<th>Comment / Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hannell Street (south of Cowper St North) Main road (classified)</td>
<td>AM peak southbound: 1,781 AM peak northbound: 1,210 PM peak southbound: 1,434 PM peak northbound: 1,518</td>
<td>Counts undertaken in March 2015, following the truncation of the railway line. Source: Traffic Impacts for the Revised Definition Design for Newcastle Light Rail, GHD, September 2015</td>
</tr>
<tr>
<td>Honeysuckle Drive (east of Hannell Street) Collector road</td>
<td>AM peak westbound: 457 AM peak eastbound: 1,164 PM peak westbound: 795 PM peak eastbound: 808</td>
<td>Counts undertaken in March 2015, following the truncation of the railway line. Source: Traffic Impacts for the Revised Definition Design for Newcastle Light Rail, GHD, September 2015</td>
</tr>
<tr>
<td>Railway Street Local road</td>
<td>3,500 vehicles per day</td>
<td>From traffic count at Hunter Street intersection; entry to Wickham from south, some through traffic. This data was collected prior to the truncation of Railway Street. Source: Wickham Transport Interchange TIA. GHD July 2014</td>
</tr>
<tr>
<td></td>
<td>1,000 vehicles per day</td>
<td>Assumed traffic levels following the truncation of Railway Street.</td>
</tr>
<tr>
<td>Station Street Local road</td>
<td>500 vehicles per day</td>
<td>Parking study, minimal through traffic, mostly residential, commercial and parking. Source: Wickham Transport Interchange TIA. GHD July 2014</td>
</tr>
<tr>
<td>Throsby Street Local road</td>
<td>1,000 vehicles per day</td>
<td>Secondary exit and entry point to the Wickham precinct through the traffic lights on Hannell Street. Source: Wickham Transport Interchange TIA. GHD July 2014</td>
</tr>
<tr>
<td>Albert Street, east of Railway Street Collector road</td>
<td>4,000 vehicles per day</td>
<td>From traffic count on Hannell Street roundabout; entry to Wickham from the north. Source: Wickham Transport Interchange TIA. GHD July 2014</td>
</tr>
</tbody>
</table>

It can be seen from Table 2.2 that the existing traffic volumes on local roads within the study area are low relative to the volume of traffic they can appropriately convey (2,000 vehicles per day) as specified in the Guide to Traffic Generating Developments (RMS Guide, October 2002).

Albert Street, a collector road, experiences higher levels of traffic, however, the number of vehicles per day may have reduced since the above surveys due to the truncation of Railway Street. The RMS Guide states that collector roads typically carry between 2,000 and 10,000 vehicles per day, therefore, Albert Street is well below the higher threshold and therefore considered to operate well within capacity.

Hannell Street, classified by the Roads and Maritime Services as a main road, experiences moderate levels of traffic, however, still within the 500 to 2,000 vehicles per hour identified within the RMS Guide. Following the closure of Railway Street, at its southern end near Station Street, the majority of traffic bypasses Wickham using Hannell Street as the primary north-south connection.
2.3 Parking

The Wickham Parking Study was undertaken by The City of Newcastle in October 2014 to seek residents’ response to the resident parking scheme introduced in Wickham in April 2012. The parking study reviewed parking demand and supply in the area and recommended further parking restrictions to assist residents and businesses through additional prohibition of commuter parking on certain streets. It also indicated which streets could be designated as a Light Traffic Thoroughfare (5 Tonne Limit), restricting heavy vehicles and, thereby, increasing residential amenity.

Parking surveys were undertaken by Council within the Wickham area over a variety of time periods and days of the week to understand parking occupation levels. The results are included below in Table 2.3.

Table 2.3: Parking survey results

<table>
<thead>
<tr>
<th>Street</th>
<th>Existing no. of parking spaces</th>
<th>No. of spaces utilised at different survey days and times</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td>Tuesday, 3:30pm 27/5/2014</td>
</tr>
<tr>
<td>Station Street</td>
<td>93</td>
<td>92</td>
</tr>
<tr>
<td>Railway Street</td>
<td>89</td>
<td>81</td>
</tr>
<tr>
<td>Dangar Street</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Charles Street</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>Wickham Street</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Union Street</td>
<td>64</td>
<td>55</td>
</tr>
<tr>
<td>Bishopsgate Street</td>
<td>52</td>
<td>47</td>
</tr>
<tr>
<td>Grey Street</td>
<td>60</td>
<td>52</td>
</tr>
<tr>
<td>Lindus Street</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>Dickson Street</td>
<td>25</td>
<td>19</td>
</tr>
<tr>
<td>Throsby Street</td>
<td>53</td>
<td>49</td>
</tr>
<tr>
<td>Unknown Lane</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Church Street</td>
<td>47</td>
<td>41</td>
</tr>
<tr>
<td>Foundary Lane</td>
<td>43</td>
<td>39</td>
</tr>
<tr>
<td>Greenway Street</td>
<td>39</td>
<td>33</td>
</tr>
<tr>
<td>Albert Street (east of Railway Street)</td>
<td>14</td>
<td>9</td>
</tr>
</tbody>
</table>

| Total                | 663                           | 589                        | 624                        | 626                        |
| Utilisation          |                                | 89%                        | 94%                        | 94.5%                      |


Car parking surveys undertaken in May 2014, as part of the Traffic Impact Assessment (TIA) also collected parking occupancy data and the dwell time of parked vehicles within Wickham. The average parking duration across all streets for this survey was 6 hours and 7 minutes, which reflects the longer term commuter parking experienced within the area and/or resident parking.
Following the parking study, Council implemented parking management measures within the Wickham Precinct as shown in Figure 2.1. It should be noted that these parking measures were introduced prior to Railway Street being closed near Station Street.

There are currently no taxi or kiss and ride facilities within the Wickham precinct.

![Wickham Precinct Transport Study](image)

**Figure 2.1: Wickham parking and light traffic thoroughfare**
*Source: Wickham Parking Study, The City of Newcastle October 2014*

The availability of parking is generally a concern for businesses, workers, residents and visitors to the city centre. However, a large number of vehicles currently parking in the precinct, particularly along Station Street, are commuters parking and walking to work in the city centre / Honeysuckle Drive. Alternate, all day parking is available at car parks along Honeysuckle Drive if spaces were to be displaced along Station Street.

### 2.4 Active Transport

Footpaths are located along the majority of streets within the Wickham precinct. Footpath conditions are variable, with some in good condition and some with uneven surfaces, vehicles parked on them or are overgrown with vegetation. No footpaths are currently located along Station Street except for a section on the northern frontage between Union Street and Railway Street.

Pedestrian connections from the precinct to the east towards the Newcastle city centre and to Honeysuckle Drive are largely via Station Street or Dangar Street, which provide links to the signalised intersection / crossing.
facilities on Hannell Street, on the southern arm of the intersection with Honeysuckle Drive. A shared pedestrian / cycle path is also located along the foreshore of the Hunter River, providing safe and attractive off-road connections further to the east and north.

Pedestrian connections to Hunter Street and the city centre can currently be made via footpaths along Hannell Street / Stewart Avenue, across the railway corridor following its truncation, to the signalised crossing facilities at the Stewart Avenue / Hunter Street intersection.

On-road cycle paths are located in both directions along Hannell Street / Stewart Avenue to the southwest of Hunter Street and north beyond Cowper Street. Within the precinct to the west of Hannell Street, there are currently no cycling facilities or infrastructure.

2.5 Public Transport

To the south of the Wickham precinct, Hunter Street is the main bus corridor with 12 different routes operating through the Newcastle city centre. To the east of Tudor Street there is a city centre Fare Free Zone between 7.30am and 6pm. Two bus routes operate north-south along Hannell Street and a route also operates along Albert Street. Many routes terminate at the Newcastle bus interchange located adjacent to the now disused Newcastle railway station.

Local buses are operated by the State Transit Authority (NSW Government). Figure 2.2 presents the local bus routes in the vicinity of the Wickham precinct.

![Figure 2.2: Local Bus Routes](http://www.newcastlebuses.info/routes/14994_STA_maples_web_map_NTI.pdf)

Following the truncation of the railway line, a rail replacement bus service has been in operation between Hamilton Station and the former stations of Wickham, Civic, Queens Wharf and Newcastle Station.
Regional buses in Newcastle provide connections to the greater Hunter, Port Stephens and the mid-north coast regions. Interstate coaches use Newcastle as a stop on their Sydney to Brisbane routes. At present, these services operate out of the Newcastle bus interchange.

No local or regional bus services operate within the Wickham precinct.

Following the truncation of the railway line, the Central Coast and Newcastle Line now temporarily terminates at Hamilton Station until such times as the new Wickham interchange has been completed. On average, two train services operate per hour towards Sydney, Dungog or Scone.

2.6 Light commercial and heavy vehicles

Light commercial and heavy vehicles currently access commercial premises within the Wickham precinct. The majority of commercial vehicles access Wickham via Railway Street, Throsby Street or Hannell Street. During site inspections, commercial vehicles were observed turning around within the driveways of commercial properties.

Since the closure of the Railway Street level crossing, through movements to and from Newcastle City Centre are no longer permitted. This has resulted in a reduction of light commercial and heavy vehicles travelling along Railway Street, Station Street and within the Wickham precinct.

There is also a gradual future transition within the precinct from commercial premises to residential developments. This would also further reduce light commercial and heavy vehicles within the precinct in the future.
3. Future Conditions

This section presents the proposed operational phase of the interchange and the road and access proposals in the vicinity of the interchange.

3.1 Proposed New Interchange

The proposed new transport interchange will accommodate train services to/from the west, as well as light rail services to/from the east on a site along the railway line immediately west of Stewart Street. The interchange will be bounded by Station Street to the north, Hannell Street/Stewart Avenue to the east and Beresford Street to the south.

The main vehicular access to the interchange is proposed to be via Station Street and pedestrian access would be via Hannell Street/Stewart Avenue or Station Street.

The new interchange design, incorporating feedback received from the community following the public display of the REF and ongoing discussions with key stakeholders, has recently been released and is shown in Figure 3.1.

Figure 3.1: Artist’s impression of the new Wickham Transport Interchange

Figure 3.2 presents the latest architectural plan for the interchange.

![Figure 3.2: Wickham Interchange Architecture Plan](source)

3.2 REF Submissions Report

The Submissions Report provides details of additional investigations that have been completed and proposed modifications to the proposal since the public display of the REF.

The REF indicated that access to Station Street will be via Bishopsgate Street and Charles Street. The REF also identified that the changes to the road network as a result of the Wickham Transport Interchange will result in adjustments to traffic flows in and around the Wickham area which is likely to have an impact on the current operational performance of the intersections in the area.

The preliminary station layout and access plan was subsequently modified following REF exhibition to:

- Exclude the bus queue jump in Stewart Avenue for buses to turn right into Honeysuckle Drive; no local buses will use the bus indent bay in Stewart Avenue.
- The Station Street laneway north of the interchange will not be a shared road/pathway and will not have road access from Stewart Avenue.
- A pedestrian bridge was included to provide north-south access over the rail corridor for pedestrians in close proximity to Railway Street, to the west of the interchange.

3.3 Changes to vehicle access

3.3.1 Access routes

Station Street will undergo substantial changes as it runs adjacent to the Wickham Transport Interchange and is proposed to be used as the main vehicular access point. The amendments to Station Street are currently proposed to include:

- Narrowing of Station Street between Union Street and Charles Street to accommodate the third rail track, train platforms, kiss and ride, and taxi set down areas.
Wickham Precinct Transport Study

- Reduced road reserve widths, new footpath, kerb and gutter alignments on the southern side of Station Street.
- Station Street, between Charles Street and Union Street, would become one-way westbound.
- Station Street would remain bi-directional between Union Street and Railway Street to allow vehicles travelling southbound on Railway Street to exit the area along Union Street.
- It is estimated that up to 75 car parking spaces would be removed.

It is currently proposed that Charles Street would be one-way in the southbound direction between Dangar Street and Station Street, with the area to the north of Dangar Street remaining bi-directional to maintain property access. It is also currently proposed to realign the eastern kerb and gutter of Charles Street, south of Dangar Street, which would result in the loss of 4 existing parking spaces. Dangar Street would remain closed to vehicular traffic as part of the existing proposals.

It is proposed that Bishopsgate Street would act as the main vehicular access route for light vehicles to Wickham and the transport interchange and that the existing signalised intersection of Hannell Street and Honeysuckle Drive would remain largely unchanged. A deceleration lane would be provided on Hannell Street for vehicles turning left onto Bishopsgate Street to improve safety and to minimise the impact on the northbound flow of traffic along Hannell Street. This is a TNSW and Roads and Maritime Services initiative.

It is noted that the arrangements in the TIA differ from those described in the REF, described above, as the TIA states that taxis and private vehicles will access the interchange via Station Street from Hannell Street by Dangar Street, rather than via Bishopsgate Street.

The intersection of Hannell Street and Throsby Street will be upgraded to improve the right turn off Hannell Street onto Throsby Street, including a longer queuing lane. Throsby Street will also incorporate a left and right turn lane onto Hannell Street, necessitating minor adjustments to the lane widths and some reduction in parking on Throsby Street in the immediate vicinity of the intersection. This would improve access to the interchange from the north.

3.4 Future trip generation

The previous Traffic Impact Assessment undertaken by GHD estimated that there would be an additional 50 private vehicles and 10 taxi trips during the peak hour resulting from the operation of the new interchange. This peak hour traffic generation was then used to calculate daily flows, distributed across the Wickham road network for travel north, south and west as shown in Table 3.1.

<table>
<thead>
<tr>
<th>Street</th>
<th>Additional traffic flows (vehicles per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station Street</td>
<td>Private: 500, Taxis: 100</td>
</tr>
<tr>
<td>Railway Street, south of Throsby Street</td>
<td>Private: 500, Taxis: 100</td>
</tr>
<tr>
<td>Railway Street, north of Throsby Street</td>
<td>Private: 250, Taxis: 50</td>
</tr>
<tr>
<td>Throsby Street</td>
<td>Private: 250, Taxis: 50</td>
</tr>
<tr>
<td>Albert Street, east of Railway Street</td>
<td>Private: 150, Taxis: 30</td>
</tr>
<tr>
<td>Albert Street, west of Railway Street</td>
<td>Private: 100, Taxis: 20</td>
</tr>
</tbody>
</table>

Source: Wickham Transport Interchange TIA, GHD July 2014

3.5 Parking

Dedicated off-street parking is not currently proposed to be provided at the Wickham Transport Interchange. This is because, much like the previous Newcastle Station, for inbound journeys, it is a designed to be a
Wickham Precinct Transport Study

destination station or end point where the majority of people would journey for employment, education, recreation and other facilities, or interchange to light rail. It is not envisaged that commuters will drive to the station and park to board a train much like the existing station of Hamilton or the former stations of Wickham, Civic and Newcastle.

For outbound services on the Hunter and Central Coast Lines, the interchange will provide options for connections to rail by taxis, private vehicles, buses and the future light rail, in addition to walking or cycling to closer destinations. People who currently park at a station and use rail services would continue to access the station that they currently use which provides suitable facilities.

The width of Station Street would need to be reduced to accommodate the provision of the third track, station platform, kiss and ride, and taxi facilities, which would result in the loss of up to 75 on-street parking spaces near the new interchange. Based on the previous parking surveys, undertaken as part of the TIA, it was concluded that the loss of these spaces could be accommodated within the surrounding areas due to the existing underutilised parking capacity. From site observations it was noted that the majority of cars currently parking on Station Street during the week are commuter vehicles. There are alternate commuter car parking options in the vicinity of the site, for example near the Honeysuckle Drive / Hannell Street intersection, therefore not all of the displaced parking spaces would need to be accommodated within the Wickham precinct.

The realigned kerb on Charles Street would also result in the loss of four parking spaces to the south of Dangar Street.

As previously discussed, a high proportion of vehicles parked, primarily along Station Street, are commuters rather than residents or businesses. There are alternate all-day parking facilities available within a short walk of Station Street, namely along Honeysuckle Drive, which could accommodate commuter vehicles.

3.6 Active Transport

The primary pedestrian links in the Wickham precinct and of relevance to the Wickham Transport Interchange are shown in Figure 3.3. The pedestrian links identified in the figure are based upon existing and anticipated desire lines to the interchange, incorporating planned improvements as part of the interchange, including a new footpath along the southern side of Station Street. Primary desire lines include Honeysuckle Drive to the east, Hunter Street and Stewart Avenue to the south, and a more dispersed pattern through the Wickham precinct to the north and northwest.

A new pedestrian bridge will also be located at the western end of the interchange, providing north-south connections along Railway Street.

There are currently bicycle lanes on Stewart Avenue and Honeysuckle Drive. As shown in Figure 3.4, these facilities would continue to be used by the majority of cyclists accessing the precinct and interchange from the south, east and north, with the main access point to the transport interchange via the signalised intersection of Hannell Street and Honeysuckle Drive. To the north and north-west through the Wickham precinct, cycle access would be along Railway Street and Bishopsgate Street. Access would primarily be required to bicycle parking on the pedestrianised section of Station Street immediately outside the interchange.
3.7 Public Transport

Local and regional bus routes will continue to operate on Hannell Street, Honeysuckle Drive and Hunter Street.

Walking distances from the bus stops to the Wickham Transport Interchange vary between 200-500 metres depending on the stop, as shown in Figure 3.5. No regular bus services will use the section of Stewart Avenue / Hannell Street between Honeysuckle Drive and King Street, immediately in front of the interchange.

![Map of Wickham Precinct with transport routes and stops](image)

**Figure 3.5: Public Transport Access to Wickham Transport Interchange**

3.8 Light commercial and heavy vehicles

It is anticipated that the only light commercial and heavy vehicles travelling through the precinct once the interchange is operational would be generated by the commercial / light industrial properties currently operating within the precinct.

In order to assist with the management of large vehicles within the precinct, signs are to be installed restricting heavy vehicle movements. ‘No turning for vehicles over 8.5m’ and ‘5T limit’ signs will be installed at Bishopsgate Street (from Hannell Street), Grey Street and Dickson Street as a minimum.

3.9 Future Development Proposals

A number of sites within the Wickham precinct have an approved development application; have submitted a Development Application (DA) or are on the market for sale and potential redevelopment, which has the potential to affect traffic circulation within the precinct. The key sites within the precinct that have been identified by Laing O’Rourke are outlined in Table 3.2.
### Wickham Precinct Transport Study

#### Table 3.2 Development opportunities in Wickham

<table>
<thead>
<tr>
<th>Location</th>
<th>Stage</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bishopsgate Street / Hannell Street</td>
<td>DA approved</td>
<td>8 storey mixed-use</td>
<td>DA 2010/1433 Permission expires 16 December 2016</td>
</tr>
<tr>
<td>12 Bishopsgate Street</td>
<td>DA submitted</td>
<td>10 storey mixed-use</td>
<td>38 car parking spaces Ground floor commercial 32 residential apartments</td>
</tr>
<tr>
<td>Lott 11 and Lot 110 Railway Lane</td>
<td>For sale</td>
<td>Vacant B4 mixed use zone development site</td>
<td>Approx. 1,9720m² For residential and commercial development</td>
</tr>
<tr>
<td>6 Wickham Street</td>
<td>Unknown</td>
<td>7 x 3 storey attached dwellings and associated works</td>
<td>DA2014/1316</td>
</tr>
<tr>
<td>27-29 Throsby Street</td>
<td>Unknown</td>
<td>Demolition of building, erection of two storey units (eleven) and associated car parking and site works</td>
<td>N/A</td>
</tr>
<tr>
<td>3-7 and 13 Charles Street, 14 and 22 Wickham Street</td>
<td>DA submitted October 2015</td>
<td>122 apartments above four commercial suits at ground level</td>
<td>N/A</td>
</tr>
</tbody>
</table>
4. Evaluation of the proposed operation

This section outlines the proposed access routes to the transport interchange and assesses the impact of those routes within the study area.

4.1 Current Proposal

Vehicular access from the south and east is proposed to be via Bishopsgate Street, Charles Street and Station Street, where four kiss and ride spaces would be provided. The proposed egress route would be via Station Street, Railway Street and Throsby Street. The proposed access and egress routes are shown in Figure 4.1.

![Figure 4.1: Proposed access routes to / from the south and east](image)


For locations to the west the proposed access and exit route would be via Albert Street, Railway Street, Station Street, Union Street, Bishopsgate Street, Charles Street and onto Station Street, with an exit route of Station Street, Railway Street and Albert Street, as shown in Figure 4.2 below.

Proposed access from the north would be via Hannell Street, Throsby Street, Railway Street, Station Street, Union Street, Bishopsgate Street, Charles Street and Station Street. Potential egress routes would be via Station Street, onto either, Union Street and Bishopsgate Street, or onto Railway Street and Throsby Street. Both of these proposed routes are considered circuitous and unlikely to be used or adhered to even if signposted.
4.2 Potential Traffic Impact

The interchange is anticipated to attract 50 private vehicles and 10 taxis during the peak hour, which would result in, on average, two vehicle trips per minute travelling within the Wickham precinct. The current distribution indicates 50% would arrive via Albert Street/Railway Street and 50% from the south and east. This would result in, on average, an additional one vehicle trip per minute at the Albert Street / Railway Street intersection and, on average, one vehicle per minute at either, the Throsby Street / Hannell Street or Bishopsgate Street / Hannell Street intersections.

In reality, vehicles would be anticipated to arrive in clusters around train departure times therefore trip numbers would be higher for short durations. However given the anticipated increase of vehicle numbers per hour, these volumes are still considered to have a negligible impact.

The assessment of the additional traffic demand on local roads within the Wickham precinct as a consequence of the new interchange is that it would have a negligible impact the current network operations and is considered acceptable. The estimated traffic demands on key roads are within acceptable threshold limits specified by the RMS Guidelines.

4.3 Proposed enhancements to current proposal

The current access proposals (May 2015) are not considered to have a significant impact on the local road network within Wickham. The Wickham precinct Traffic Study, May 2015 presents the preferred access options to the interchange, it is however acknowledged that in reality there are many access route options that would be taken to access and exit the interchange.

Because of this, alternate options have been looked at that could improve access and minimise the impact on the Wickham precinct, particularly as Bishopsgate Street (west of Charles Street), Grey Street and Dickson Street have been identified as light traffic thoroughfares by Council.

The proposed enhancements include changes to directional signage within the Wickham precinct, revised parking allocation and traffic management interventions to improve access and circulation.
4.3.1 Alternate access options

These options look at promoting alternative routes to access the new interchange and that do not require major infrastructure interventions. These options examine the possibility of an additional drop-off parking area at the southern end of Union Street and that vehicles be directed to use wider streets within the precinct. This option aims to minimise the distance travelled on the identified light traffic thoroughfares, namely Bishopsgate Street, Grey Street and Dickson Street.

Figure 4.3, Figure 4.4 and Figure 4.5 present three route scenarios and Table 4.1 identifies associated approximate distances based on a desktop study.

Figure 4.3: Scenario 1 - access from the west, exit to the east
### Table 4.1: Access options – signage and parking allocation

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Currently Proposed</th>
<th>Alternate Options</th>
<th>Difference</th>
<th>Total Journey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Distance on standard roads</td>
<td>Distance on light traffic thoroughfare</td>
<td>Distance on standard roads</td>
<td>Distance on light traffic thoroughfare</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>1,710m</td>
<td>350m</td>
<td>1,700m</td>
<td>0m</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>2,055m</td>
<td>145m</td>
<td>1,850m</td>
<td>0m</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>1,725m</td>
<td>75m</td>
<td>1,425m</td>
<td>75m</td>
</tr>
</tbody>
</table>

It can be seen from Table 4.1 that by directing vehicles to use other roads, such as Union Street, overall journey distances would be reduced, as well as the impact of these additional vehicles on the identified light traffic thoroughfares within the Wickham precinct.

#### 4.3.2 Other Considerations

As discussed above, one vehicle per minute during the peak hour is anticipated to use the Albert Street / Railway Street intersection, which would not have a material impact on the operational performance of the intersection. Given this minimal impact, it is not considered necessary to upgrade this intersection in order to accommodate vehicles associated with the operation of the interchange.

Two of the identified property developments (one with an approved Development Application) are proposed for Bishopsgate Street. The proposed interventions (detailed in Section 4.3.1) would contribute to alleviating vehicle movements directly outside these new developments by dispersing movements within the precinct. This would improve network capacity at this location and enhance safety in the vicinity of the mixed use building(s).

Newcastle City Council considered a raised shared use plateau at the Charles Street / Station Street intersection however it was considered not to be necessary. It is however an option to provide a raised shared-use plateau at the Station Street / Railway Street intersection to improve pedestrian access to the interchange and to the Railway Street pedestrian bridge over the railway line to/from the north and west of Wickham precinct. This would enhance safety for pedestrians accessing or exiting the interchange to the west and north by providing safer crossing facilities that would connect to the new footpath on the southern frontage of Station Street.

It would be beneficial to extend the existing Light Traffic Thoroughfare (5 Tonne Limit) areas within the Wickham precinct so that large vehicles are not permitted to use Bishopsgate Street, Grey Street and Dickson Street. This would assist in managing heavy vehicle movements within the precinct and increasing residential amenity.
5. Conclusions and Recommendation

The main conclusions and recommendations from this report are given below:

- The assessment of the additional traffic demand on roads within the Wickham precinct as a consequence of the new interchange concluded that it would have minimal impact on the current network operations and is considered acceptable.

- The projected traffic demand on Hannell Street, Railway Street, Station Street, Throsby Street and Albert Street, as a result of the new interchange, is within the limits specified by the RMS Guidelines for a local, collector and sub-arterial roads.

- The identified access route to the interchange is via Bishopsgate Street and Charles Street. Alternative routes include the use of Union Street rather than Bishopsgate Street and Church Street as an access to Station Street, thus minimising the vehicular impact on the light traffic thoroughfares.

- It is recommended that additional ‘Kiss and Ride’ parking spaces, or ‘5 min’ parking restrictions are provided during peak periods on the eastern frontage of Union Street between Station Street and Bishopsgate Street.

- Due to the limited quantity, and variable condition, of the existing footpaths throughout Wickham, it is recommended that a footpath audit be undertaken and footpaths upgraded within the precinct where they are considered to be substandard.

- Extend existing Light Traffic Thoroughfare (5 tonne and 3.5 metre limit) areas by including signage at Bishopsgate Street (from Hannell Street), Grey Street and Dickson Street to help manage heavy vehicle movements within the precinct and increasing residential amenity.

- In order to improve pedestrian connectivity and safety accessing the interchange from within Wickham, the following are recommended for further investigation:
  - A footpath along the northern frontage of Station Street.
  - A raised shared-use plateau at the corner of Railway Street and Station Street. This would act as a traffic calming measure and enhance pedestrian safety for pedestrians accessing or exiting the station to the northwest.

- Cycle signage or on-street markings should be provided to clearly indicate dedicated cycling routes for both cyclists and drivers. This would enhance safety by advising drivers that there may be cyclists on the road as well as direct cyclists to the most appropriate and safest routes to take.
Attachment B: Letter to Transport for NSW - Wickham Transport Study
January 2016
Dear Mr Henderson

WICKHAM TRANSPORT STUDY

Thank you for the opportunity to review the final Draft of the Wickham Precinct Transport Study prepared by JACOBS for Transport for NSW. As you are aware, the report was requested to identify traffic impacts resulting from the Wickham Interchange Project which includes the closure of Railway St, the proposed changes to traffic flow in Charles and Station Street, and the resumption of parts of Station Lane and Station Street that currently reside on Transport for NSW land.

Newcastle City Council finds many assumptions in the report lacking sufficient detail to be taken at face value but notwithstanding, understands that the project needs to progress. It is understood that you wish to table the proposed traffic changes in Charles and Station Streets to Newcastle City Traffic Committee for consideration prior to being presented to Council for a resolution on the matter.

Council believes that in addition to proposals within the study, addressing the following items within the overall scope of the project would assist further considerations regarding this matter:

- Construction of a shared path the full length of the southern side of Station Street;
- Construction of a new footpath the full length of the northern side of Station Street;
- Retention of parking on the southern side of Station Street;
- New footpath on Union Street between Throsby and Station Streets;
- Raised pedestrian crossings at either end of Station Street and in the vicinity of the intersection of Union and Throsby Streets;
- The installation of speed cushions in Throsby Street west of Hannell Street;
- Construction of a roundabout at the Railway and Albert Street intersection;
- Resumption of land adjacent to Railway Lane, for the construction of a shared zone to facilitate pedestrian and vehicle access into the area;
- Construction of the shared zone in Railway Lane;
- The creation of a way finding plan for the area; and
- The construction of a cycleway from Railway Lane to Wickham Park.

Yours faithfully

[Signature]

Ken Liddell
ADIRECTOR INFRASTRUCTURE