

LAND TRANSPORT STRATEGY FOR GRAFTON CBD

Submission to Clarence Valley Council

Prince Street and Surrounding Streets Grafton CBD



March 2021 (Revision 2)

BALLINA

45 River Street PO Box 20 BALLINA NSW 2478 02 6686 3280

GUNNEDAH

Germane House 285 Conadilly Street GUNNEDAH NSW 2380 02 6742 9955





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Job Captain:			Tony Cromac	k	
Author:			Tony Cromac	k	
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1. Introduction

Ardill Payne & Partners (APP) has been engaged by Clarence Valley Council (Council) as part of a consultancy team (with Vee Design and Fourfold Studio) to deliver to Council a *'Precinct Plan and Transport & Car Parking Strategy'* for the Grafton CBD. There are two combined projects that form the scope that Council wants assistance with:

- 1. A Car Parking and Land Transport Strategy for Prince Street and the Grafton CBD; and
- 2. A Precinct Plan for Prince Street, Grafton along with the main entrance from South Grafton.

The project is needed to better support the social and economic wellbeing of the Grafton community and to provide for a prosperous future for Grafton businesses. It is also necessary to ensure the efficient and effective coordination of Council activities across the Grafton CBD and South Grafton entrance, to take a 'place making' approach to help ensure that Prince Street and the CBD are places locals and visitors want to spend time in, to socialise in, and do business and invest in. Council wants to identify and use a range of policy and investment tools to support resilient, sustainable, and innovative businesses in the CBD.

While the focus of this scope of work is on Prince Street, the project takes a 'place making' approach to the wider area to tie in with other projects that Council is progressing in and around Grafton.

One critical input is a car parking and land transport strategy for Prince Street and the Grafton CBD, to understand and plan for car parking needs, and to encourage more active modes of travel (walking, cycling, and improved mobility and accessibility), and to provide for an inviting and useable main street.

This report comprises the 'Land Transport Strategy for Grafton CBD'.



Photo credit: Daily Telegraph



1.1 Background

Grafton is a regional city on the North Coast of NSW, with a 2021 population (in the Grafton and South Grafton area) of 17,345 people (*Population forecast, 2016-2014, .id (informed decisions)*) and a predicted growing population.

Grafton was the first City on the North Coast and operates as the main centre of commerce and employment in the Clarence Valley. Grafton also hosts a range of successful annual festivals and events.

Major infrastructure projects, such as the rerouting of the Pacific Highway east of Grafton, are improving the connectivity and accessibility of Grafton to regions across the North Coast and further afield. The new Grafton Bridge and realigned transport routes also means that Prince Street is in the process of being re-designated as a local road under Council's responsibility. The completion of these projects presents an opportunity for Council to improve traffic movement, car parking, and facilities for walking, cycling, and improved mobility in the Grafton CBD.

In the last 12 months, due to the impacts of COVID-19, the potential for regional centres to offer improved lifestyles and increased job opportunities has been realised. For similar reasons, there has been an increase in demand for regional tourism experiences. These factors combined have contributed to a greater demand on existing facilities in regional centres.

The 'North Coast Regional Plan' (NCRP) promotes vibrant and engaged communities. Action 14.1 of the NCRP requires the preparation of precinct plans in centres bypassed by the Pacific Highway, including Grafton, in order to guide development and establish appropriate land use zoning, development standards, and developer contributions.

This project responds to that Action, but also responds to the current needs of business and the wider community with an interest in Grafton. Council wants to make Grafton somewhere that locals and visitors choose to visit, to socialise in, to spend money in, and to do business and invest in. There is also an opportunity to 'learn by doing' and expand upon the approach taken with the successful '*Vibrant Places*' trial in 2019. 'Tactical urbanism' has been successfully used in cities and regional centres around the world. It provides the opportunity to trial initiatives and change street function, car parking, or footpaths temporarily and measure the impacts before committing significant funds to concrete projects.

Council wants to have agreed plans and strategies in place to better support future grant applications and prioritise Council resources.



2. Planning Context

2.1 Study Area

The study area is focussed on Prince Street, but includes the surrounding streets across the CBD, along with transport links (road/walking/cycling) to South Grafton, including to the Grafton Rail Station. The study area is bounded by Queen Street, Bacon Street, Villiers Street, and the Clarence River.

Fitzroy Street and Pound Street serve as the major arterial roads into Grafton from the south (via the two Grafton Bridges); Prince Street is the main road in from the north, and Villiers Street (B91) adjoins the eastern side of the study area.

In December 2019, the new Grafton Bridge opened. Summerland Way (Route B91) was permanently rerouted via Villiers Street, Pound Street, and the new bridge, and no longer runs along Prince and Fitzroy Streets. The new route bypasses the Grafton CBD. The new bridge and changed transport routes mean Prince Street will soon become a Council responsibility, rather than State Government, with changes to the road hierarchy and function. This presents opportunities to improve traffic movement, car parking, and facilities for walking, cycling and improved mobility in Grafton.

The focus of the study area is shown in **Figure 1** below.



Figure 1: Focus of Study Area



Local bus services travel through the CBD via Fitzroy, Prince, and Bacon Street.

Grafton has been planned to accommodate the needs of the pedestrian and cyclist with level roads. There are designated cycle paths along many streets, connecting south to both the old and new Grafton Bridges, and north to Lawrence and Junction Hill.

2.2 Regional Context

Grafton is located at the heart of the Clarence Valley. The Clarence Valley has strong links across the North Coast of NSW and into Queensland. Grafton is about 600km north of Sydney and 315km south of Brisbane. In a broader regional context, Grafton is about an hour north of Coffs Harbour, with Maclean just more than an hour south of Lismore and Ballina (refer **Figure 2**).

Major infrastructure projects, particularly the Pacific Motorway, are improving the connectivity and accessibility of Grafton to regions across the North Coast and further afield.

In December 2019, the new Grafton Bridge opened. Summerland Way (Route B91) was permanently rerouted via Villiers Street, Pound Street, and the new bridge, and no longer runs along Prince and Fitzroy Streets. The new route bypasses the Grafton CBD. The new bridge and changed transport routes mean Prince Street will soon become a Council responsibility, rather than State Government, with changes to the road hierarchy and function.

Key land transport links are provided by way of the road and rail networks:

<u>Road</u>

The Pacific Highway (Route A1) is the key road transport route linking the Clarence Valley north to Queensland and south to Sydney.

The Summerland Way (Route B91) is an inland highway route that provides important north-south connectivity. It is part of an alternative highway route between Brisbane and Grafton, via Woodenbong and Casino.

The Gwydir Highway (Route B76) is an east-west corridor that links the inland plains to the Clarence via the New England region.

<u>Bus</u>

Public bus services cover Grafton, Ulmarra, Maclean, Yamba, and Iluka. There are also bus tour operators, taxis, and car hire companies.

Busways is the main operator for local town routes, as well as out-of-town routes to Junction Hill, Jackadgery/Cangai, Copmanhurst, Maclean, and Yamba. The most popular routes are 374 (Grafton-South Grafton via Bimble Ave) and 380 (Grafton-Yamba via Maclean). Approx. 80% of patronage is on these 2 routes.

Lawrence Bus Service operates a shopper service, as well as school service on school days, to and from Lawrence. There are several other smaller local operators.

Northern Rivers Buslines operates a weekday service to Lismore via Maclean, Evans Head, and Coraki.

Taxi/Uber

Grafton Radio Cabs provides a 24hr service within the Grafton area. Their service includes wheelchair accessible cabs. There are also some rideshare companies operating in Grafton.



<u>Rail</u>

Clarence Valley is serviced by both passenger and freight rail operations, providing access to the rail link between Brisbane and Sydney. The Grafton-Casino-Brisbane XPT trains run daily from Sydney and stop at South Grafton. The rail station is wheelchair accessible.

NSW TrainLink provides coach services connecting to Byron Bay and Moree.

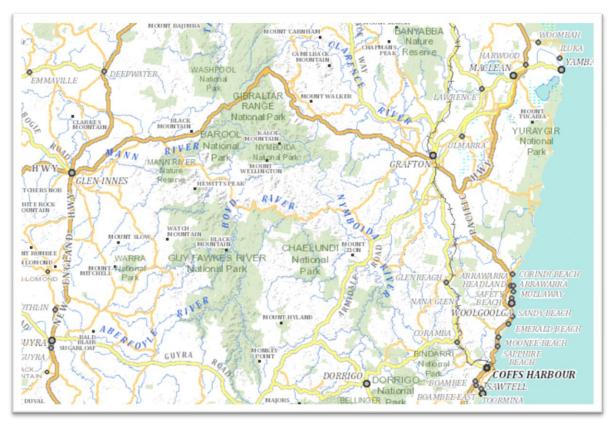


Figure 2: Regional Context

2.3 Planning and Policy

Responsibility for the provision and planning of transport within Grafton is shared between Clarence Valley Council and the NSW State Government. The key areas of transport that are the responsibility of State Government are high level land use planning policy, public transport, and the arterial road network. Council manages the local road network and most of the pedestrian and cycle networks. These responsibilities are outlined in various local and State plans, policies, and strategies, some of which are listed below:



NSW State Government

- North Coast Regional Plan 2036 a 20-year blueprint for the future of the North Coast
- Future Transport 2056 comprises an overarching strategy and a suite of supporting plans. It is a vision for how transport can support growth and the economy of NSW over the next 40 years. It has outcomes to guide investment, policy and reform and service provision. They provide a framework for network planning and investment aimed at harnessing rapid change and innovation to support a modern, innovative transport system that serves the community and economy well into the 21st century
- Regional NSW Services and Infrastructure Plan outlines the vision and customer outcomes that the Government will use to go about its detailed transport planning in each region
- NSW Road Safety Strategy 2012-21 the NSW Government is committed to improving road safety for the community and plans to make our roads the safest in the country
- NSW Government, 'Practitioners Guide to Movement and Place' to assist in the planning, design, delivery, and operation of our transport networks and the areas around them
- Walking and Cycling Program a NSW Government initiative by Transport for NSW (TfNSW) to encourage people to walk or cycle as part of their everyday travel. Applications for grants in the 2021/22 program open soon
- Transport for NSW policies on 'Providing for Walking and Cycling in Transport Projects', 'Road User Space Allocation'
- NSW Government, 'Walking Space Guide, Towards Pedestrian Comfort and Safety'
- NSW Government, 'Freight and Servicing Last Mile Toolkit' to assist planners, developers and Government give greater consideration to freight and servicing demands for new buildings and precincts as part of the planning process.

Clarence Valley Council

- Clarence Valley Regional Economic Development Strategy 2018-2022 has been developed to facilitate economic growth across the Clarence Valley
- The Clarence 2027, Community Strategic Plan identifies the community's broad 10-year aspirations as identified in wide community consultation held in 2017
- Local Strategic Planning Statement, July 2020 sets the direction for land use planning in the Clarence Valley for the next 20 years
- Grafton Waterfront Precinct Masterplan, March 2011 (part of the Clarence River Way Masterplan)
- Pedestrian Access and Mobility Plan 2015
- Bicycle Plan 2015.



2.4 Community Profile

Population forecasts undertaken for Council by .id (informed decisions) shows a 2021 population of the Clarence Valley LGA of 53,110. The 2021 population of Grafton and South Grafton is 17,345.

From the 2016 ABS data for Grafton and South Grafton:

- The median age is 43. Approx. 58.5% of the population is of working age (15-64 years). Approx. 22.8% of the population is of retirement age (65 years or older), which is significantly higher than state average (16.2%).
- 80.6% of all dwellings are separate dwellings; 2.7% of households are living in social housing.
- Almost two-thirds of dwellings are family households, and one-third single (or lone) person households.
- Approx. 50.5% of people work full-time; 34% work part time; 8.1% of working residents travel outside the area to work.
- Key employment sectors include aged care residential services, hospitals, other social assistance services, takeaway food services, and supermarket and grocery stores. However, these sectors account for only 17.7% which indicates that employment is very diverse.

Population Projections

 Clarence Valley Council population and household forecasts 2016-2041, undertaken for Council by .id (informed decisions), indicates that the population of the Clarence Valley LGA is estimated to grow at an approx. rate of 0.7% to year 2041, from 51,630 in 2016 to 60,735 in 2014.

2.5 Transport Profile

Grafton has a heavy reliance on private vehicle travel:

- Approx. 42.2% of dwellings have 1 registered motor vehicle; 31.2% have two.
- Approx. 74.6% of Grafton residents travel to work by car as the driver or passenger. Only 0.5% identified as travelling to work by public transport, with 2.0% cycling and 5.3% walking to work. While the statistics quoted here only reflect trips made to work, they represent typical travel behaviour throughout the city.
- There is one main local bus service (Busways) operating within Grafton, offering 9 routes within Grafton and further afield to Junction Hill, Maclean/Yamba, Copmanhurst, and Jackadgery/Cangai. There are several other smaller operators.

Freight Movements

Due to Grafton's position on the junction of Big River Way (the old Pacific Highway), Summerland Way, and Gwydir Highway, the arterial road network is used for both freight and commuter traffic.

With the potential future growth of the North Coast, the freight connections and resulting traffic volumes and tonnage impacts on amenity and safety along the road network will be significant if not addressed.



Parking

- Peak demand across the study area is in the order of 65% on a weekday.
- On-street parking in Prince Street (between Pound and Fitzroy Streets); Duke Street (between Pound Street and the river); and King Street are in high demand on weekdays, regularly having utilisation of better than 90% for most of the day.
- Off-street carparks at 92 Victoria Street and Post Office Lane were full most of Thursday. It can be inferred that they are full most weekdays.
- Grafton residents rate parking availability, pedestrian safety, accessibility, and lack of cycle facilities as some of the key issues in their local area.

Crash History

The following crash data for the period 2015-2019 has been sourced from the 'Transport for NSW, Centre for Road Safety' website:

- 24 recorded crashes in total within the study area
- No recorded fatalities. 5 crashes resulted in serious injuries; 6 in moderate injuries; the rest were minor injury or non-casualty crashes
- 19 crashes occurred in daylight; 3 at night; 2 at dusk or dawn
- 8 crashes occurred at roundabouts; 8 occurred at 4-way intersections
- 6 crashes occurred whilst parking; 2 crashes involved pedestrians

Accessibility & Social Inclusion

Key local destinations should be accessible to all residents. If not accessible, this can restrict access to employment, shopping, social, and community opportunities. If the transport network does not make adequate provision for accessibility, then parts of the community can become isolated, impacting on their health and social wellbeing.

Impact on Health

Transport choice can have an impact on the health outcomes of the community. In a 2018 local health needs community survey:

- mental health was the #1 health challenge among 27.1% of respondents; weight was #2 with 21.5% of respondents
- rates of hospitalisation for diabetes type 1 and stroke were higher than state averages.



3. Study Objectives

The objectives of the 'Land Transport Strategy' are to:

- 1. understand and plan for car parking needs in and around Prince Street and servicing the CBD (reported in the 'Car Parking Audit and Strategy')
- 2. develop an understanding of land transport functions and identify opportunities for improved safety, mobility, accessibility, and walking and cycling
- 3. analyse all land transport links to and from Grafton CBD and identify opportunities for improvement
- 4. ensure that each road balances the movement and place making activities
- 5. provide for an inviting and useable main street
- 6. assess the impact of potential changes to Prince Street on movement and attractiveness of Prince Street.

3.1 Understanding the Issues

To understand community and stakeholder issues related to transport and movement, the project team undertook a 3-day workshop series in Grafton including a targeted ideation session with key stakeholders from the community. In addition, Council ran an on-line survey through 'Clarence Conversations' on Council's website. Key issues identified in these workshops and surveys are discussed in the following sections.

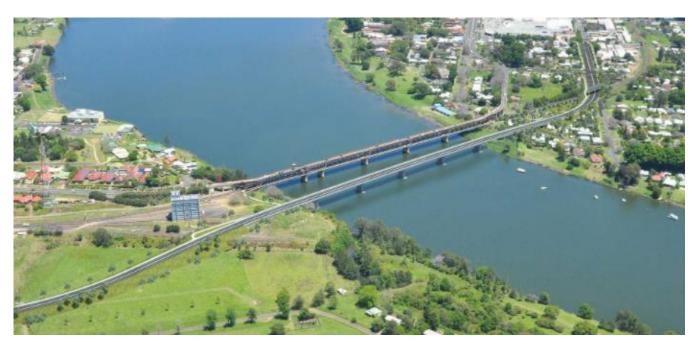


Photo credit: NSW Government website



4. Walking

Walking is a low impact form of travel that has significant health and social benefits. Route amenity, safety, and accessibility are important characteristics that impact on the likelihood of people choosing to walk. Some of the benefits of walking are:

- Improved health outcomes for individuals
- Sustainability through reduction in motor vehicle dependence
- Lower road infrastructure and maintenance costs
- Reduced congestion on our roads
- Community benefits such as increased social connections.

In Grafton, a low percentage of people walk to work (5.3%), but it is noted that this is above the state average (3.9%). Promoting walking to increase this percentage will help reduce levels of obesity in the community (identified as an area of concern in the local health survey), which in turn helps to lessen the risk of heart disease and type 2 diabetes.

The NSW State Government initiative 'Future Transport 2056' aims to increase the use of public transport, walking, and cycling in regional NSW for all trips, improving levels of social inclusion, and bringing flow on health benefits. Their aspiration for the next 10 years is to increase walking mode share from 4% to 8% across regional NSW.

Council's 'Pedestrian Access and Mobility Plan 2015' (PAMP) is a comprehensive strategic approach to identifying pedestrian networks. The PAMP provides a consistent approach to pedestrian facilities and their prioritisation across the Clarence Valley. It is planned for review and will consider this 'Land Transport Strategy' and accompanying 'Car Parking Audit and Strategy,' and the 'Grafton Precinct Plan' to link the Grafton CBD with the wider area.



Photo credit: ABC



4.1 Objectives

To provide a well-connected and safe environment where walking is encouraged through appropriate infrastructure; to improve connections to and navigation through the Grafton CBD; and support and promote active travel in the community.

4.2 Issues

4.2.1 Route Connectivity

The CBD itself is well serviced for pedestrian paths. However, continuity beyond the CBD into the nearby residential areas is lacking. The provision of suitable passive and active recreation paths with good connectivity to residential areas and activity centres is essential to encourage walking.

The new Grafton Waterfront Precinct Project (currently in development) will improve pedestrian connections from existing infrastructure to the River and create visitor and user attractions.

Access through shopping arcades, private shops, etc. to carparks and public land behind makes the CBD more permeable.

4.2.2 Pedestrian Safety

Crash data does not indicate that accidents involving pedestrians is a significant issue. However, survey results indicate that pedestrian safety is an issue of concern to the community. The perception of a lack of safety due to poor connectivity, inadequate lighting, poor driver behavior, and excessive vehicle speeds can discourage people from walking. Respondents felt that vehicles had priority over other forms of transport in the CBD. The lack of suitable places for pedestrians to cross busier and/or wider roads is also a barrier to walking.

Council ran an on-line survey through 'Clarence Conversations' on Council's website – responses showed 49.5% thought it was safe to walk/cycle around the CBD; 31.5% disagreed; 19% undecided.

4.2.3 Pedestrian Crossings

Survey results indicate that it is the community perception that it is neither easy or safe to cross the road in some areas. Respondents felt that there were insufficient pedestrian crossings, with key locations identified as near Market Square and bus stops. The pedestrian crossings in Pound Street were considered dangerous, which is probably as a result of the increased traffic in Pound Street since the opening of the new bridge. Permeability in Prince Street was also raised as an issue, with the central barrier preventing free flow of pedestrians across the road.

4.2.4 Path Quality

A common survey response was the (lack of) quality of the paths in the network, including in the CBD – narrow (*"footpaths are skinny, roads are wide"*), obstructions (sandwich boards), changes in height and finish, aesthetically unattractive.



4.2.5 Other Issues

Other issues raised in the surveys included lack of wayfinding signage, and accessibility (which is dealt with in more detail in Section 8).

4.3 Strategies

Strategies	Actions
Improve pedestrian path connectivity	Provide better pedestrian path connections between existing paths and public transport nodes (bus stops and taxi ranks) and schools. This will include new crossings listed in below sections.
	Include shared path links from Prince Street, and possibly also Duke, Villiers, and Clarence Streets to the Waterfront Precinct.
	Implement a program to gradually extend paths out from the CBD to improve connectivity into residential areas to encourage walking. Paths should ideally also connect with public transport routes/nodes.
	Consider the needs of pedestrians in any future transport infrastructure upgrades and street maintenance programs
	Update the <i>Pedestrian Access and Mobility Plan 2015 (PAMP 2015)</i> to improve pedestrian and access mobility across the CBD, links to the CBD, along with other changes to improve the walkability of places and spaces across the Clarence valley and increase the number and percentage of people walking in Grafton and make it easier for everyone, regardless of mobility level, to move around the CBD safely and easily.
Reduce vehicle speeds in CBD	Reduce the visual and actual width of streets by widening footpaths, installing medians and kerb blisters, narrowing traffic lanes, and street tree planting within the core retail areas of Prince Street in order to slow down traffic, make the CBD more accessible and improve the attractiveness of Prince Street as a place where people want to spend time and support business. This should include narrowing the width of some sections of road pavements of key streets within the CBD with kerb blisters or new central medians/islands, as part of 'place making' actions to reduce crossing distances and increase footpath widths.
	Seek funding for the planning, design, and construction of raised thresholds ('Wombat' crossings) at the 2 pedestrian crossings in Prince Street between Fitzroy Street and Pound Street, and the existing crossing in Prince near Bacon Street, along with a proposed new crossing near the Saraton Theatre subject to further engagement with affected owners and businesses. Where possible, pedestrian crossings should be installed in association with kerb extensions.
	Construct raised pavements and varied road surface colours/textures at major intersections, and at gateways to the CBD, as a means of 'arrival'



Strategies	Actions
	and demarcating the threshold into the precinct, welcoming people in to the heart of the CBD and signalling drivers to slow down.
	Review the traffic priority at all intersections within and adjacent to the Grafton CBD to encourage slower through traffic speed along and across Prince Street and enable smoother traffic flow along other streets, such as but not limited to, Queen Street. Implement changes that do not cause unreasonable impact on traffic flow and level of service. This will include investigation of 30km/h speed limits for the core pedestrian areas of the CBD, through further consultation with TfNSW and the community
	Conduct a Road Safety Audit and/or Safe System Assessment, in collaboration with TfNSW, to review the speed limit in the high pedestrian activity area.
Improve pedestrian crossings	Provide new pedestrian crossings at – Prince Street at Saraton Theatre/Market Square subject to further engagement with business; Prince Street near Toast Espresso/Commonwealth Bank; Pound Street between Wiseman Way and Prince Street (near existing crossing point); and Victoria Street near Post Office (to cater for increased foot traffic to Waterfront Precinct).
	Consider installing pedestrian refuges in Victoria Street between Duke and Queen Streets, and Fitzroy Street west of Prince Street, to allow staged pedestrian crossings, improve safety and accessibility. These refuges can be added or incorporated into other on-street embellishments, e.g., centre parking, as appropriate.
Improve safety of pedestrians crossing near roundabouts	Ensure the safety of pedestrians crossing at or near roundabouts. Consider implementing trials to provide a consistent roundabout treatment in Grafton CBD to reduce speeds and improve safety for pedestrians and cyclists.
Improve path quality	As part of the review of the PAMP 2015, conduct an audit of existing footpaths for width, surface condition, evenness, and safety, and compliance with Australian Standards and CVC requirements. Include an assessment of lighting.
	Implement an upgrade program to progressively bring the footpaths, including kerb ramps, up to current standards to improve accessibility and safety, including to schools
Improve pedestrian comfort	Provide sheltered areas with seating and water fountains at suitable locations in Prince Street and the Grafton CBD
Improve ease of navigation	A new wayfinding signage system should be installed, as outlined in Section 7.10.2. This should include easily identifiable signs for visitors providing a logical progression from the major approaches (Fitzroy Street and Pound Street from the bridges, and Prince Street from the north) to and through the CBD, and onto the main side streets and car parking areas (at the two major shopping centres and the public carpark



Strategies	Actions
	at the Library). Signage could promote walking times to nearby destinations such as the Grafton Regional Gallery, the Library, Market Square, or the waterfront. Wayfinding signage should be provided to direct tourists with caravans and RV's to the proposed new dedicated parking area in Duke Street, behind Market Square.
Improve footpaths for accessibility	Develop an accessibility map to help promote walking routes within and beyond Grafton
	Conduct an audit of existing footpaths to assess useable width and kerb ramps for compliance with Australian Standards and Council requirements.
	Progressively upgrade existing kerb ramps to meet current standards, and suitable for mobility scooters. Install or replace missing or deficient kerb ramps and develop criteria for prioritising implementation
Encourage walking to improve community health and wellbeing	Promote walking by assisting in the establishment of recreational walking groups
Incorporate walking needs into all capital works and redevelopment projects	To deliver improved connectivity to activity centres, employment, and community facilities, and public transport connections
	Council to apply for grant funding under the TfNSW 'Walking and Cycling Program' 2021/22. Funding can be used for new and/or widened footpaths, shared zones, new pedestrian crossings, and kerb ramps and extensions.
Car Parking Audit Action Plan	Secure funding arrangements to progress Actions in the 'Car Parking Audit' Action Plan.



5. Cycling

Cycling provides an inexpensive mode of transport that can have significant health and social benefits. It is also good for the environment as it does not release pollutants into the air.

However, people can be discouraged from cycling because of safety concerns. Ensuring there are safe on-road and off-road cycle paths is essential. Separating cyclists from motor vehicles on busy roads helps reduce conflict between cyclists and vehicles.

End of trip facilities are essential. Space allocated to bicycle parking can produce much higher levels of retail spend than the same space devoted to car parking ('Good for Busine\$\$. The benefits of making streets more walking and cycling friendly', Dr Rodney Tolley, Heart Foundation South Australia).

Electric bicycles are becoming popular and are particularly relevant for cyclists travelling to and from South Grafton where the terrain is slightly hillier.

In Grafton, a low percentage of people cycle to work (2.0%), but it is noted that it is above the state average (0.7%). Promoting cycling to increase this percentage will help improve overall health by increasing cardiovascular fitness, improving joint mobility, and decreasing stress levels.

The NSW State Government initiative 'Future Transport 2056' aims to increase the use of public transport, walking, and cycling in regional NSW for all trips, improving levels of social inclusion, and bringing flow on health benefits. Their aspiration for the next 10 years is to increase cycling mode share from 2% to 5% across regional NSW.

Council's 'Bicycle Plan 2015' is a comprehensive strategic approach to identifying cycling networks throughout the Council region. The Plan is a guiding document to providing cycling infrastructure throughout the Council area. It is planned for review and will consider this 'Land Transport Strategy' and accompanying 'Car Parking Audit and Strategy', and the 'Grafton Precinct Plan' to link the Grafton CBD with the wider area.



Photo credit: Clarence Valley Council, Grafton City Cycle Map



The primary cycling roles are:

- To provide access to local activity areas. For these routes, continuity between residential and activity areas is essential. The primary network is the local street system.
- Recreational routes that are cycled for enjoyment in their own right. For these routes, the quality
 of the route itself and the environments passed are important factors.
- Providing commuter access to employment and other services. For these routes, direct and continuous cycle lanes are needed and end of trip facilities (secure cycle parking, showers, change rooms, etc.).

5.1 Objectives

To encourage the community to adopt cycling as a viable alternative to the car for a wide variety of trips within Grafton and South Grafton through the provision of suitable infrastructure, and to improve connections to and navigation through the Grafton CBD.

5.2 Issues

5.2.1 Route Connectivity

Barriers to route continuity are mainly due to discontinuous cycle routes and lack of clearly defined on-road cycle lanes. The on-road routes generally have little in the way of signage or pavement markings and rely on cyclists using the sealed road shoulders. This limits the potential for riders to use the cycle routes. A fragmented bicycle network does not support safe and efficient journeys.

Clearly defined continuity beyond the CBD into the nearby residential areas is lacking. The provision of suitable passive and active recreation paths within good connectivity to residential areas and activity centres is essential to encourage cycling.

5.2.2 Cyclist Safety

Accidents involving cyclists do not show up as a major issue in crash statistics. The perception of a lack of safety due to poor connectivity, poor driver behavior, conflict between cyclists/pedestrians and cyclists/vehicles, and excessive vehicle speeds can discourage people from cycling. Respondents felt that vehicles had priority over other forms of transport in the CBD.

The lack of safe crossings on busier roads reduces a cyclist's ability or willingness to access certain destinations.

Council ran an on-line survey through 'Clarence Conversations' on Council's website – responses showed 49.5% thought it was safe to walk/cycle around the CBD; 31.5% disagreed; 19% undecided.



5.2.3 Path Quality

A common survey response was the (lack of) quality of the paths in the network, including in the CBD – narrow cycle paths, no cycle lanes across intersections, obstacles on or adjacent to paths, poor quality finish, aesthetically unattractive.

There are generally no clearly defined or dedicated on-road cycle lanes.

5.2.4 End of Trip Facilities

A lack of safe and secure end of trip bicycle facilities – cycle parking, showers, etc. Larger businesses should provide these, particularly government-based offices. The provision of a public facility could be explored by Council.

5.2.1 Other Issues

Other issues raised in the surveys included a lack of wayfinding signage, and accessibility (which is dealt with in more detail in Section 8).

5.3 Strategies

Strategies	Actions
Improve cycle path connectivity	Develop a continuous safe and attractive shared path to link Grafton and South Grafton via the new bridge. A link between Clarence and Victoria Streets is missing along with lighting, CPTED improvements and other details along the route.
	Connect shared paths to the River/waterfront precinct
	Undertake an audit of the existing bicycle path network to clearly identify missing links in the network, and update the <i>Bicycle Plan</i> 2015
Create a safer cycling environment	Consider a trial of temporary on-road bike lanes in select locations, focussed on the CBD and desirable locations (e.g., core retail area, waterfront etc.) and promotion through 'bike days' and other initiatives.
	If the bicycle trials above are successful, provide marked on-road cycle lanes in key locations in the cycle network, with appropriate signage and pavement markings. Use continuity markings (green coloured surfacing) to continue on-road cycle lanes across side roads and intersections.
	In implementing the on-road cycle lanes, consider separation of the cycle lane from cars (extra clearance or physical separation such as medians), where possible
	Consider upgrading off-road footpaths to shared paths in locations where cycle volumes are high or where on-road cycle safety is a risk



Strategies	Actions
	Provide crossing facilities at shared path and road intersections. Locations determined by cyclist and road traffic volumes
	Install relevant cyclist signage throughout the network. These should include but not be limited to 'Bicycle Lane' signs (to designate exclusive cycle lanes) and bicycle warning graphic signs (to warn motorists of the presence of cyclists on the road where cyclists are likely to come into conflict with vehicles).
Improve path quality	Conduct an audit of existing cycle paths for width, surface condition, evenness, safety, and compliance with Australian Standards and Council requirements. Include an assessment of lighting.
	Implement an upgrade program to progressively bring the cycle network up to current standards
Improve cycle paths for accessibility	Develop a bicycle accessibility map to help promote riding routes within and beyond Grafton
Provide cycle parking and other facilities	Provide end of trip facilities at key destinations, including bicycle parking and charging points for electric bicycles. Consider installing bicycle hoop racks in select locations within the CBD.
	Provide bike racks in suitable locations close to popular cafes, retails areas and in safe, convenient, and easily accessible locations that will encourage use by cyclists in Prince Street and across the CBD. The detailed design and location should be developed with cycling groups and nearby businesses.
Improve ease of navigation	Develop and install wayfinding signage to provide clear and consistent directional signing and road markings to guide cyclists along key routes, with distance and travel time information to major destinations
Encourage cycling to improve community health and wellbeing	Promote cycling as a fun, practical and healthy transportation choice through the development and implementation of behavioural change programs, particularly starting with larger organisations (Council, State government, Hospital etc.), and with the Chamber of Commerce and businesses.
	Promote cycling and routes via social media, maps, fun days and artistic trails
	Develop promotional material to communicate the health and cost benefits of cycling in collaboration with TfNSW, NSW Health and local cycle groups.
	Council to work with local employers to encourage their staff to cycle to work.



Strategies	Actions
Incorporate cycling needs into all capital works and redevelopment projects	To deliver improved connectivity to activity centres, employment, and community facilities
	Council to apply for grant funding under the TfNSW 'Walking and Cycling Program' 2021/22. Funding can be used for new on-road and off-road cycling infrastructure, upgrades of existing infrastructure, and bike parking facilities at key locations.
	Consider the needs of cyclists in all transport infrastructure upgrades and street maintenance programs
Car Parking Audit Action Plan	Secure funding arrangements to progress Actions in the 'Car Parking Audit' Action Plan.



6. Public Transport

Public transport services connect people with places. All ages and abilities can use public transport, and it is cheaper than driving a car; it reduces congestion on our roads; and helps people be a little more active in their day-to-day life by walking to bus stops. A well connected and efficient public transport network provides a viable alternative to the car for accessing work, education, and community and social services.

Separate public transport studies are currently being conducted by TfNSW. The results of these studies are not available at the time of drafting this report (expected to be released later in 2021).

The focus of this report will be to address issues raised during the project team's 3-day workshop and Council's on-line community survey. These issues will focus on buses and taxis. Community transport is addressed in Section 8.

The community is asking for improved public transport and wants better bus connections between the CBD and residential areas, along with more frequent services and improved accessibility.

While Council can improve access, connectivity and amenity around public transport stops, improving service frequency, connectivity and reliability is under the control of the State Government and transport providers. Council advocates strongly for improvements to services on behalf of the community.



Photo Credit: Busways



6.1 Objectives

A good public transport system is reliable, frequent, safe, and accessible, connecting people to where they want to go. Council can work with public transport providers to improve public transport infrastructure.

6.2 Issues

6.2.1 Service Levels

Many respondents felt that the frequency of bus services was inadequate. Grafton town services can be anywhere between 1hr to 4hrs apart, depending on the route and time of day. Services to South Grafton can be 30mins to 2hrs apart. Bus services also have limited hours of operation – typically daylight hours, with no night services – and only limited weekend services.

There was a perception that services to outer areas (such as Trenayr, Waterview Heights, etc.) are lacking.

Some people said they would not use the bus services due to the time taken to travel relatively short distances. Express services were suggested.

6.2.2 Bus Stops

Respondents raised several issues with bus stops:

- a general lack of bus stops
- some bus stops are located in inappropriate locations
- no bus stop/s near the Library or King Street (access to Coles supermarket, Service NSW, Centrelink, medical and pathology facilities
- poor lighting (security and safety concerns)
- accessibility
- lack of all-weather shelters.

Respondents from residential areas noted that the don't use buses as there are no routes or bus stops near where they live.

One bus stop mentioned often was the 'NAB' stop in Prince Street (near the intersection with Fitzroy Street). It is a bus terminus. Long stays by buses reduce amenity for nearby businesses.

6.2.3 Bus Services to Rail Station

The nearest Busways bus stop to the Grafton railway station (at South Grafton) is near the corner of Bent and Through Streets, a walk of approx. 150m to the station. The path connection is mostly sealed but has little shade or protection from the weather. Southbound buses from Grafton city stop here. The nearest stop for northbound buses from South Grafton is approx. 450m from the station.



The NSW TrainLink coach service connects with Grafton railway station, but the only stop is at the railway station.

6.2.4 Accessibility

There were several comments regarding accessibility of public transport – footpath gradients and clearances make it difficult for wheelchair access; sometimes next to impossible to get on some of the buses. People with children (prams) and people with bikes also noted access difficulties. Many accessibility comments also related to bus shelters. Accessibility is dealt with in more detail in Section 8.

6.2.5 Taxi Rank in Pound Street

The existing taxi rank has little shade, no all-weather shelter, and is difficult for drivers and passengers to know who is waiting. Accessibility has also been raised as an issue – elderly people have difficulty accessing the taxis, particularly in wet weather.

6.2.6 Other Issues

Other public transport issues raised included:

- a preference to keep buses out of the CBD.
- knowing how and where to access information and timetables.
- cost of public transport.

It should be noted here that some respondents stated that nothing would encourage them to use public transport – car use was too convenient. Council ran an on-line survey through 'Clarence Conversations' on Council's website – 97% of respondents did not use public transport.

6.3 Strategies

Strategies	Actions
Improved bus timetable; increase service frequency	Support more frequent bus services, especially during peak periods
	Support an increase in services linking Grafton with key destinations within and beyond Grafton – outer residential areas (Trenayr, Waterview Heights, etc.) and other towns in the Clarence Valley (Maclean, Yamba, etc.)
	Investigate whether additional routes can be added to the local services to improve coverage of expanding residential areas



Strategies	Actions
	Consider implementing some 'express routes' on some services, especially during peak periods
	Consider a trial of a free CBD shuttle bus service on a continuous loop between Aldi and the river end of Prince Street, linking the Regional Gallery, Library, and other key destinations
Review bus stop locations and facilities	Review current bus stop locations throughout the network – provide additional stops as deemed necessary. Suggested location for an additional bus stop in the CBD – towards or under the railway viaduct near the Saraton Theatre, Fitzroy Street westbound near Prince Street and King Street southbound, subject to future consultation.
	Relocate the NAB bus stop (in Prince Street, near Fitzroy Street) to around the corner in Fitzroy Street and reconfigure the bus routes to only utilise Fitzroy Street, then on to King Street and an upgraded bus stop in King Street to improve accessibility for public transport users. The NAB stop is a terminus which results in buses sitting and idling between service runs, reducing the amenity of adjacent businesses. If this relocation is not possible, then the stop should be changed to a 'stop-and-go' to minimise bus idle time. The terminus stop should be relocated to a more suitable location.
	To improve safety and security, assess lighting of existing major bus stops. Provide compliant lighting or relocate stops to areas covered by existing street lighting.
	Review compliance of current bus shelters – provide new and/or upgraded all-weather, accessible shelters
	Support the provision of accessible access at all bus stops.
Review taxi rank locations and facilities	Council, in collaboration with the Grafton Taxis, to review the Taxi zone in Pound Street, at Market Square, to provide a more user-friendly space with appropriately designed and clear waiting areas with shade/shelter and to decrease the footprint of the taxi zone. The existing zone provides for approx. 8 parallel spaces, or 12 angle spaces, which appears to be in excess of current needs. The length of taxi zone to be determined taking into account usage rates and accessibility.
	Work with taxi providers to improve taxi rank facilities. This should include accessibility, and a safe, comfortable, all-weather waiting area at the Pound Street taxi rank
	To improve safety and security, consider lighting of taxi ranks in the CBD, or relocate ranks to areas covered by existing street lighting.
Make the public transport system universally accessible	Develop a program to progressively provide disability compliant bus stops with bus shelters



Strategies	Actions
	Trial a 'free day' for public transport to get people on board and try it out with the aim of gaining more users.
	Better promotion of when and where the services are available, and how to access timetables.



7. Freight Movements

Successful placemaking generates freight and servicing activities, such as goods deliveries, waste services, and utility maintenance, which is fundamental to business and economic activity. However, if not managed correctly, it can impact the amenity of adjoining areas. It is essential to ensure that freight and servicing activities do not affect amenity including other users such as pedestrians and cyclists.

General access freight vehicles can access specific roads in Grafton. B-doubles up to 25/26m are generally restricted to Villiers, Dobie, and Turf Streets (Summerland Way), in addition to Duke Street and some smaller connections. There is conditional access to Prince Street. Vehicles up to 4.6m high accessing the town via the bridges are restricted to movements along Villiers, Dobie, and Turf Streets (Summerland Way).

Matrix OD surveys carried out for this study showed that heavy vehicles accounted for approx. 2.2% of vehicle movements through the CBD. This compares to approx. 9-10% HV on the arterial roads outside of the study area (TfNSW studies for new bridge crossing).

Grafton and South Grafton are on the junction of the Gwydir Highway (Route B76) and Summerland Way (Route B91), with links to the Pacific Highway via Big River Way. Summerland Way starts at South Grafton and crosses the Clarence River on the new Grafton bridge and continues north through Grafton.

Council should investigate local government grant programs implemented by the NSW Government to deal with freight access constraints and last mile issues.

Transport for NSW 'Summerland Way Draft Corridor Strategy', September 2016, sets out the Governments long term plans to manage the Summerland Way corridor. The vision for the Summerland Way relative to Grafton and the Clarence Valley over the next 20 years is to:

- Become a safer route for all road users with the safe systems approach adopted
- Cater for the travel needs of all road users through Grafton, providing an acceptable level of safety, efficiency, and ride comfort
- Support the active transport needs of cyclists, pedestrians and public transport users with appropriate facilities and infrastructure in towns and between centres.

To address the identified challenges of improving road safety and optimising travel times, providing maintenance solutions, and to address community feedback, the following priorities relative to Grafton and the Clarence Valley have been identified:

- Maintain and improve travel efficiency for local and regional road users by catering for the corridor's mix of heavy vehicles, light vehicles, tourist traffic, and vulnerable road users particularly through Grafton by upgrading intersections, and providing links between services for other road users
- Progressively improve formation widths to provide 3.5m lanes, sealed shoulders, and edge lines particularly from Grafton to Junction Hill
- Safety improvements to high-risk areas and those with high crash rates, improvements to priority intersections in Grafton.





Photo credit: Truck assist

7.1 Objectives

To provide a safe and efficient road network that meets the travel needs of all road users, and ensures that freight movements are not obstructed, and that impacts on sensitive land uses are minimised.

7.2 Issues

The workshops and community surveys did not highlight any specific issues in relation to freight movement, other than the lack of suitable loading zones and off-street areas for the parking of service vehicles. The issues addressed in this section are rather more general issues in relation to freight movements through business and residential areas but are relevant to freight movements through Grafton.

7.2.1 Lack of Priority

Freight, public transport, private cars, and bicycles are mixed together and there is little priority given to particular modes.

7.2.2 Road Safety

Heavy vehicles interact with other road users, in particular public transport, and cyclists.

Busways routes 375, 376, and 377, servicing Westlawn and Junction Hill, coincide with or cross Summerland Way at several locations. Routes 378 and 379 follow the Gwydir Highway west. Route 380 follows Big River Way to Maclean and Yamba.



Cyclists cross Summerland Way (Dobie Street) at Queen Street and Alice Street. There are refuge islands in Dobie Street at these two locations. Cyclists also cross Summerland Way (Turf Street) at Hoof Street and North Street. There are no provisions for safe cyclist crossings at these two locations.

7.2.3 Impact on Amenity

Heavy vehicles reduce amenity through residential areas due to noise, vibration, and air pollution.

7.2.4 Provision for Service Vehicles

There are limited loading zones available in the CBD area. A short zone is located in Bacon Street, just west of Prince Street. Dellows Lane (off King Street and servicing the rear of some Prince Street businesses) is almost exclusively a loading zone. Whilst not signposted as such, some loading/unloading activities are carried out in Wiseman Way (between Pound and Duke Streets).

Other than in these zones, if the delivery vehicle cannot park in a driveway or off-street, some delivery vehicles will block off parking areas with bollards/tape in order to deliver stock.

Strategies	Actions
Clearly establish road priorities	Develop a Road Network Plan to inform investment priorities and opportunities. This will benefit Council for future budgeting for road upgrades and in its applications for State and Federal Governments funding. It will also assist in identifying other infrastructure treatments to enhance walking, cycling, public transport, and freight operations.
	Plan and cater for freight movements from distribution hubs and industrial areas to the main freight routes, while minimising impacts on surrounding areas.
	Ensure that road space is managed consistently with Council's and TfNSW strategic directions.
Manage the road network for the safety of all road users	Manage local roads to improve amenity and safety for users and ensure consistency with the issues and initiatives of NSW Road Safety Strategy 2012-2021
	Minimise conflict between freight movements and public transport and cyclists by ensuring minimal route duplication and intersection, and where this is not possible, provide sufficient separation between heavy vehicles and other road users, and safe crossing facilities. This would include providing off-road cycle paths in key locations
	Enhance the safety along approved B-double routes through residential areas – Summerland Way and Gwydir Highway (Ryan Street, South

7.3 Strategies



Strategies	Actions
	Grafton). On key intersecting roads, provide advance warning signage on side streets indicating road priority.
	Assess existing pedestrian and cyclist crossing points. Upgrade crossing safety by providing medians, refuges, and warning signage as required.
Minimise impact on amenity in residential areas	Manage vehicle speeds and minimise use of HV engine brakes in residential areas. Install appropriate signage along HV routes. In areas where there are sensitive receivers and/or excessive complaints, Council and/or TfNSW may need to undertake a road traffic noise assessment
Review loading and delivery provisions in the CBD	Undertake a review of loading zones and deliveries in the CBD. Where identified issues exist, assess whether loading zones can be incorporated into the parking arrangement. Aim is to provide sufficient provisions for the delivery of goods, at the same time as minimising conflict with other road users, in particular cyclists and pedestrians.



8. Access and Mobility

The number of people in Grafton aged 65 and over is above the state average and will continue to increase. The unemployment rate is approx. 10.7%, higher than the state average (6.3%) (2016 ABS Census). Therefore, Grafton's transport network needs to be accessible for people of varying income, ability, and age across a wide range of travel modes.

Well designed and accessible communities benefit everyone. Independent travel becomes possible for the elderly, families, children, and people with a disability. Considering the needs of all transport users, and eliminating barriers that restrict people from accessing transport, results in a better transport network for all users.

Paths should be designed for easy access for all users, including pedestrians, cyclists, people with prams, wheelchairs, and mobility scooters.

Accessible buses have no steps, a low floor, a ramp, and they can 'kneel' to the same level as the kerb to make it easy to board. Almost all of Busways Grafton services are accessible.

Wheelchair accessible taxis are cars or minibuses that have been altered to secure one or more mobility aids in the back. Grafton Taxis have wheelchair and maxi-taxi hire.

Community transport provides an important link for disadvantaged members of the community. These services help people to live independently in their own homes while maintaining social and recreational connections. Community transport can include buses, taxis, and community and volunteer services. Clarence Community Transport is a not-for-profit community-based organization providing these services to eligible residents in the Clarence Valley. Community transport services also have Aboriginal Transport Programs to assist with culturally appropriate services.



Photo credit: Brisbane City Council



8.1 Objectives

Improve accessibility and transport choices to destinations within and beyond Grafton for people of all ages and abilities.

8.2 Issues

8.2.1 General Accessibility

From surveys undertaken for this study, some residents of Grafton, mainly older or with those young families, identified as an issue the ability to get out and about. Accessibility issues are dealt with in more detail in the following sections.

8.2.2 Accessibility of Paths and Crossings

Survey results indicate that it is the community perception that it is neither easy nor safe to cross the road in some areas. There was no specific clarification in the survey responses regarding accessibility issues, however it is considered that the responses relate to all users. Respondents also felt that there were insufficient pedestrian crossings, and that the pedestrian crossings in Pound Street were considered dangerous (most likely as a result of the increased traffic since the opening of the new bridge).

Another frequent comment was concerns with kerb ramps – location, grade, trip hazards, and lack of tactile ground surface indicators. Kerb ramps are important for the elderly, those using wheelchairs or mobility scooters, prams, and (where legal) bicycles. However, if not constructed to the current standards for accessibility, they can present a hazard for less ambulant pedestrians or pedestrians with vision impairment. Kerb ramps should also be directly aligned with each other and with any pedestrian refuge islands. Tactile ground surface indicators should also be provided in all accessible kerb ramps and median openings.

Respondents also mentioned gutters as barriers to accessibility.

8.2.3 Path Quality

A common survey response was the (lack of) quality of the paths in the network, including in the CBD. Paths that are narrow, obstructed, and have changes in height and finish, all present challenges to people with reduced mobility or a visual impairment.

Paths should be free of trip hazards. Poor or uneven surfaces on paths (and roads) are a hazard for all pedestrians, but especially for the elderly and vision impaired. Path surfaces should be a consistent level and where changes in level are necessary, gentle slopes are preferred. Utilities in footpaths (such as service pit covers) should be flush with the finished surface of the path.

8.2.4 Access to Public Transport

Survey respondents identified the standard of accessible access to buses and taxis as an issue – location and number of accessible stops; path access to the stops; and suitability of the stop for accessible ingress/egress to the bus or taxi. Passengers with a vision impairment need clear cues



to help them find their way to boarding points for public transport. The place to wait for transport must be clearly defined.

Manoeuvrability requirements can be found in the *'Disability Standards for Accessible Public Transport, 2002'* of the Disability Discrimination Act.

8.2.5 Accessible Parking

A request raised by survey respondents was to provide more disability parking within the CBD, with at grade access from the parking space to the adjoining path. The spaces currently provided within the study area meet the minimum number required by current Australian Standards, however they are not configured to meet those current standards.

Accessible parking areas should be dispersed throughout the CBD to enable people to park near as many accessible entrances as possible.

8.2.6 Mobility Scooter Charging Points

An issue was raised with the lack of recharge facilities in the CBD for mobility scooters. People who use electric mobility scooters or wheelchairs fear being stranded by a flat battery. As a result, they are isolating themselves. By providing free battery charging facilities, users can travel longer distances and increase social connections.

Strategies	Actions
Review accessibility of paths and crossings	Engage an accessibility consultant or utilise existing in-house expertise such as the Access Committee, to undertake a full review of accessibility across the CBD, to identify areas for improving accessibility. This should include an assessment of existing kerb ramps and crossings
	Implement an upgrade program to progressively bring kerb ramps and crossings up to a standard suitable for universal accessibility, including provision of tactile ground surface indicators where required
Improve path quality	Conduct an audit of existing paths for width, surface condition, evenness, safety, and compliance with Australian Standards and Council requirements. Include an assessment of lighting.
	Implement an upgrade program to progressively bring the path network up to a standard suitable for universal accessibility
Improved access to public transport	Develop and implement a program to provide accessible path connections to all public transport stops

8.3 Strategies



Strategies	Actions
	Seek funding for Community Transport service providers to provide transport for people who have difficulty accessing regular public transport
	Encourage local groups to seek funding through Council grants and other funding sources to provide Community Transport services
Ensure sufficient and suitable located accessible parking is provided	Engage an accessibility consultant or utilise existing in-house expertise such as the Access Committee, to undertake a full review of accessible parking to determine if existing accessible parking is provided in the best locations, or if additional accessible spaces are needed to meet future demands. Council should also monitor if demand and utilisation increase to determine if the provision of additional accessible spaces are necessary. Any new parking should be provided in accordance with the current Australian Standards. If existing spaces are modified, they should also be brought up to current standards. Additional accessible parking needs to be provided near access ramps to the new waterfront, including at the end of Duke Street
Increase range of community facilities available to electric mobility scooter and wheelchair users	Consider partnering with Recharge Scheme Australia (or a similar scheme) to provide safe areas for people to recharge their electric mobility scooter or wheelchair battery, free of charge.



9. Road Safety

The NSW 'Road Safety Strategy 2012-2021' initiatives align with the Safe System framework: safer roads, safer vehicles, safer people, safer speeds, and post-crash trauma treatment.

Developing innovative and cost-effective treatments for <u>safer roads</u> are highly important to reaching the Strategy targets. There is potential to address fatal and serious injury crashes on the road network through improved intersection design, eliminating or shielding road users from roadside objects or from opposing vehicles, and by considering pedestrians and bicycle riders particularly in urban areas.

The aim of making <u>safer vehicles</u> is to reduce the number and severity of injury incidents by improving the safety characteristics of vehicles and protective equipment for all road users.

The Safe System approach acknowledges that people make mistakes and that the transport system should accommodate those mistakes. There is also a strong need for road users to be educated, licensed, drive responsibly, and have access to information to create <u>safer people</u> so their behaviour does not put them at risk. The interaction between road users also leads to crashes. There is a need to address behaviours that create this crash risk by the development of a "share the roads" message to address interaction issues and create a level of respect between different road users. At risk road-users include children and young people, pedestrians, cyclists, motor cyclists, older road users, and impaired road users.

The adverse consequences of speeding, particular the risks imposed on others from an individual driver's speed choice, require a multi-faceted Safe System approach. This would include the setting of <u>safer</u> <u>speeds</u> for the environment, implementation of engineering measures to minimise the severity of crashes, and enforcement to ensure compliance.

9.1 Objectives

To ensure road safety is considered in the design, construction, maintenance, operation, and audit of the whole road network for all road users.

9.2 Issues

9.2.1 Road Safety

During the five-year period from January 2015 to December 2019, there were 24 casualty crashes in the study area (plus another 9 on Villiers Street between Fitzroy and Oliver Streets, along the eastern edge of the study area). Note that this data is prior to the opening of the new bridge. There were no particular accident types that require priority attention, however 16 of the 24 crashes occurred at intersections, and 6 crashes occurred while parking.

Further investigation of the intersection and parking crashes should be undertaken.

9.2.2 Vehicle Speeds in CBD

Respondents identified vehicle speed in the CBD as an issue of concern.



In Grafton, with its wide streets, the existing road environment does not encourage low vehicle speeds. A 40 km/h zone has already been installed in the CBD (high pedestrian activity), however in some areas it should be supported by a traffic calming scheme. If designed appropriately, traffic calming can markedly reduce vehicle speeds, and substantially reduce the risk of injury to a pedestrian or cyclist, or a person in the vehicle. Traffic calming schemes should be designed and installed to restrict vehicle travel speeds throughout the whole speed restricted area, but in particular the main retail area in Prince Street. Traffic calming schemes may require the approval of the Local Traffic Committee.

9.2.3 Wayfinding Signage

There is currently no wayfinding signage to direct drivers to any of the Council managed off-street carparks, or at the entrance to the carparks. There is, however, some signage in the city approaches directing drivers to the 'City Centre'.

9.3 Strategies

Strategies	Actions
Manage the road network for the safety of all road users	Manage local roads to improve amenity and safety for users and ensure consistency with the issues and initiatives of NSW Road Safety Strategy 2012-2021 and any refreshed NSW Government road safety strategies.
	Consider conducting Road Safety Audits and/or Safe System Assessments to assess known safety issues or crash locations. Undertake any recommended improvements to high-risk issues identified in the audits
Reduce traffic speeds in CBD and the wider network	Seek funding for the planning, design, and construction of raised thresholds ('Wombat' crossings) at the 2 pedestrian crossings in Prince Street between Fitzroy Street and Pound Street, and the existing crossing in Prince near Bacon Street, along with a proposed new crossing near the Saraton Theatre subject to further engagement with affected owners and businesses. Where possible, pedestrian crossings should be installed in association with kerb extensions.
	Construct raised pavements and varied road surface colours/textures at major intersections, and at gateways to the CBD, as a means of 'arrival' and demarcating the threshold into the precinct, welcoming people into the heart of the CBD and signalling drivers to slow down.
	Review the traffic priority at all intersections within and adjacent to the Grafton CBD to encourage slower through traffic speed along and across Prince Street and enable smoother traffic flow along other streets, such as but not limited to, Queen Street. Implement changes that do not cause unreasonable impact on traffic flow and level of service. This will include investigation of 30km/h speed limits for the



Strategies	Actions
	core pedestrian areas of the CBD, through further consultation with TfNSW and the community
Improve wayfinding signage	A new wayfinding signage system should be installed to include easily identifiable signs providing a logical progression from the major approaches (Fitzroy Street and Pound Street from the bridges, and Prince Street from the north) to and through the CBD, and onto the main side streets and car parking areas. It is recommended that wayfinding signage be installed initially on the three main routes to and through the CBD, and onto the main side streets and car parking areas (at the two major shopping centres and the public carpark at the Library). Signage could promote walking times to nearby destinations such as the Grafton Regional Gallery, the Library, Market Square or the waterfront. Wayfinding signage should be provided to direct tourists with caravans and RV's to the proposed new dedicated parking area in Duke Street, behind Market Square.



10. Parking

Parking is dealt with in the 'Grafton CBD Car Parking Audit and Strategy'. This report is provided in Attachment 1.

In summary, some of the key issues raised during workshops and surveys included:

- Angled street parking vs parallel parking difficulty of parking
- Reverse-in parking reducing footpath amenity
- Availability of parking
- Insufficient all-day parking (particularly in Fitzroy and Victoria Streets)
- Some areas close to businesses have all day parking should be for shopping and customer parking
- Parking needs dominating Prince Street
- Parking should be no further than 200m from centre of CBD
- Need for large central parking areas

Respondents suggested the following as strategies to deal with some of these issues:

- Remove car parking and replace with shady café space
- Eliminate parking in Prince Street between Fitzroy and Pound Streets
- Introduce nose in parking
- Provide more parking in the centre strip
- Provide more parking generally
- Provide special areas for RV parking
- Change parking configurations more central parking
- Provide more parallel parking
- Provide more 2hr parking
- Provide off-street parking for service vehicles
- Provide shaded all day parking in Pound Street



11. Action Plan

There are numerous key actions identified throughout this report which should be implemented or investigated to improve existing land transport functions, safety, mobility, and accessibility for all users. This Action Plan is a summary of all actions contained in individual sections of this report with a corresponding priority assigned.

Legend: W = walking; C = cycling; T = public transport; F = freight movements; A = access and mobility; S = road safety; P = parking.

Deser		Priority to commence planning, design and/or works		
Recor	ecommendation/Action		Medium (3-6 years)	Future (7-10 years)
1W	Provide better pedestrian path connections between existing paths and public transport nodes (bus stops and taxi ranks) and schools. This will include new crossings listed in below sections.		✓	
2W	Include shared path links from Prince Street, and possibly also Duke, Villiers, and Clarence Streets to the Waterfront Precinct.		✓	
3W	Implement a program to gradually extend paths out from the CBD to improve connectivity into residential areas to encourage walking. Paths should ideally also connect with public transport routes/nodes.			~
4W	Consider the needs of pedestrians in any future transport infrastructure upgrades and street maintenance programs			~
5W	Update the <i>Pedestrian Access and Mobility Plan 2015 (PAMP 2015)</i> to improve pedestrian and access mobility across the CBD, links to the CBD, along with other changes to improve the walkability of places and spaces across the Clarence valley and increase the number and percentage of people walking in Grafton and make it easier for everyone, regardless of mobility level, to move around the CBD safely and easily.	~		

Table 1: Action Plan



Deser	Recommendation/Action		mence planning works	design and/or
Recon			Medium (3-6 years)	Future (7-10 years)
6W	Reduce the visual and actual width of streets by widening footpaths, installing medians and kerb blisters, narrowing traffic lanes, and street tree planting within the core retail areas of Prince Street in order to slow down traffic, make the CBD more accessible and improve the attractiveness of Prince Street as a place where people want to spend time and support business. This should include narrowing the width of some sections of road pavements of key streets within the CBD with kerb blisters or new central medians/islands, as part of 'place making' actions to reduce crossing distances and increase footpath widths.	*		
7W	Seek funding for the planning, design, and construction of raised thresholds ('Wombat' crossings) at the 2 pedestrian crossings in Prince Street between Fitzroy Street and Pound Street, and the existing crossing in Prince near Bacon Street, along with a proposed new crossing near the Saraton Theatre subject to further engagement with affected owners and businesses. Where possible, pedestrian crossings should be installed in association with kerb extensions.	~		
8W	Construct raised pavements and varied road surface colours/textures at major intersections, and at gateways to the CBD, as a means of 'arrival' and demarcating the threshold into the precinct, welcoming people into the heart of the CBD and signalling drivers to slow down.		✓	
9W	Review the traffic priority at all intersections within and adjacent to the Grafton CBD to encourage slower through traffic speed along and across Prince Street and enable smoother traffic flow along other streets, such as but not limited to, Queen Street. Implement changes that do not cause unreasonable impact on traffic flow and level of service. This will include investigation of 30km/h speed limits for the core pedestrian areas of the CBD, through further consultation with TfNSW and the community	*		
10W	Conduct a Road Safety Audit and/or Safe System Assessment, in collaboration with TfNSW, to review the speed limit in the high pedestrian activity area.		✓	
11W	Provide new pedestrian crossings at – Prince Street at Saraton Theatre/Market Square subject to further engagement with business; Prince Street near Toast Espresso/Commonwealth Bank; Pound Street between	✓		



Deeen		Priority to commence planning, design works		, design and/or
Recon	nmendation/Action	High (1-2 years)	Medium (3-6 years)	Future (7-10 years)
	Wiseman Way and Prince Street (near existing crossing point); and Victoria Street near Post Office (to cater for increased foot traffic to Waterfront Precinct).			
12W	Consider installing pedestrian refuges in Victoria Street between Duke and Queen Streets, and Fitzroy Street west of Prince Street, to allow staged pedestrian crossings, improve safety and accessibility. These refuges can be added or incorporated into other on-street embellishments, e.g., centre parking, as appropriate.		4	
13W	Ensure the safety of pedestrians crossing at or near roundabouts. Consider implementing trials to provide a consistent roundabout treatment in Grafton CBD to reduce speeds and improve safety for pedestrians and cyclists.		1	
14W	As part of the review of the PAMP 2015, conduct an audit of existing footpaths for width, surface condition, evenness, and safety, and compliance with Australian Standards and CVC requirements. Include an assessment of lighting.	~		
15W	Implement an upgrade program to progressively bring the footpaths, including kerb ramps, up to current standards to improve accessibility and safety, including to schools.		~	
16W	Provide sheltered areas with seating and water fountains at suitable locations in Prince Street and the Grafton CBD.		~	
17W	A new wayfinding signage system should be installed, as outlined in Section 7.10.2. This should include easily identifiable signs for visitors providing a logical progression from the major approaches (Fitzroy Street and Pound Street from the bridges, and Prince Street from the north) to and through the CBD, and onto the main side streets and car parking areas (at the two major shopping centres and the public carpark at the Library). Signage could promote walking times to nearby destinations such as the Grafton Regional Gallery, the Library, Market Square, or the waterfront. Wayfinding signage should be provided to direct tourists with caravans and RV's to the proposed new dedicated parking area in Duke Street, behind Market Square.	~		



Deser	mendation/Action	Priority to com	Priority to commence planning, design works	
Recom			Medium (3-6 years)	Future (7-10 years)
18W	Develop an accessibility map to help promote walking routes within and beyond Grafton		✓	
19W	Promote walking by assisting in the establishment of recreational walking groups		✓	
20W	Incorporate walking needs into all capital works and redevelopment projects to deliver improved connectivity to activity centres, employment, and community facilities, schools, and public transport connections		~	
21W	Council to apply for grant funding under the TfNSW 'Walking and Cycling Program' 2021/22. Funding can be used for new and/or widened footpaths, shared zones, new pedestrian crossings, and kerb ramps and extensions.	~		
22C	Develop a continuous safe and attractive shared path to link Grafton and South Grafton via the new bridge. A link between Clarence and Victoria Streets is missing along with lighting, CPTED improvements and other details along the route.	~		
23C	Connect shared paths to the River/waterfront precinct		✓	
24C	Undertake an audit of the existing bicycle path network to clearly identify missing links in the network, and update the <i>Bicycle Plan 2015</i>		~	
25C	Consider a trial of temporary on-road bike lanes in select locations, focussed on the CBD and desirable locations (e.g., core retail area, waterfront etc.) and promotion through 'bike days' and other initiatives.	~		
26C	If the bicycle trials above are successful, provide marked on-road cycle lanes in key locations in the cycle network, with appropriate signage and pavement markings. Use continuity markings (green coloured surfacing) to continue on-road cycle lanes across side roads and intersections		~	
27C	In implementing the on-road cycle lanes, consider separation of the cycle lane from cars (extra clearance or physical separation such as medians), where possible.		~	



Deee		Priority to com	Priority to commence planning, design works	
Recor	nmendation/Action	High (1-2 years)	Medium (3-6 years)	Future (7-10 years)
28C	Consider upgrading off-road footpaths to shared paths in locations where cycle volumes are high or where on- road cycle safety is a risk			
29C	Provide crossing facilities at shared path and road intersections. Locations determined by cyclist and road traffic volumes		~	
30C	Install relevant cyclist signage throughout the network. These should include but not be limited to 'Bicycle Lane' signs (to designate exclusive cycle lanes) and bicycle warning graphic signs (to warn motorists of the presence of cyclists on the road where cyclists are likely to come into conflict with vehicles).	~		
31C	Conduct an audit of existing cycle paths for width, surface condition, evenness, safety, and compliance with Australian Standards and Council requirements. Include an assessment of lighting.	~		
32C	Implement an upgrade program to progressively bring the cycle network up to current standards		~	
33C	Develop a bicycle accessibility map to help promote riding routes within and beyond Grafton			✓
34C	Provide end of trip facilities at key destinations, including bicycle parking and charging points for electric bicycles. Consider installing bicycle hoop racks in select locations within the CBD.		~	
35C	Provide bike racks in suitable locations close to popular cafes, retails areas and in safe, convenient, and easily accessible locations that will encourage use by cyclists in Prince Street and across the CBD. The detailed design and location should be developed with cycling groups and nearby businesses.	~		
36C	Develop and install wayfinding signage to provide clear and consistent directional signing and road markings to guide cyclists along key routes, with distance and travel time information to major destinations		~	



Deser	Recommendation/Action		Priority to commence planning, design and/or works		
Recon			Medium (3-6 years)	Future (7-10 years)	
37C	Promote cycling as a fun, practical and healthy transportation choice through the development and implementation of behavioural change programs, particularly starting with larger organisations (Council, State government, Hospital etc.), and with the Chamber of Commerce and businesses.		✓		
38C	Promote cycling and routes via social media, maps, fun days, and artistic trails.		✓		
39C	Develop promotional material to communicate the health and cost benefits of cycling in collaboration with TfNSW, NSW Health and local cycle groups.		✓		
40C	Council to work with local employers to encourage their staff to cycle to work.		✓		
41C	Incorporate cycling needs into all capital works and redevelopment projects to deliver improved connectivity to activity centres, employment, and community facilities		✓		
42C	Council to apply for grant funding under the TfNSW 'Walking and Cycling Program' 2021/22. Funding can be used for new on-road and off-road cycling infrastructure, upgrades of existing infrastructure, and bike parking facilities at key locations.	~			
43C	Consider the needs of cyclists in all transport infrastructure upgrades and street maintenance programs			✓	
44T	Support more frequent bus services, especially during peak periods		✓		
45T	Support an increase in services linking Grafton with key destinations within and beyond Grafton – outer residential areas (Trenayr, Waterview Heights, etc.) and other towns in the Clarence Valley (Maclean, Yamba, etc.)		✓		
46T	Investigate whether additional routes can be added to the local services to improve coverage of expanding residential areas			~	



Deser	Recommendation/Action		Priority to commence planning, design and/o works		
Recon			Medium (3-6 years)	Future (7-10 years)	
47T	Consider implementing some 'express routes' on some services, especially during peak periods			✓	
48T	Consider a trial of a free CBD shuttle bus service on a continuous loop between Aldi and the river end of Prince Street, linking the Regional Gallery, Library, and other key destinations.			✓	
49T	Review current bus stop locations throughout the network – provide additional stops as deemed necessary. Suggested location for an additional bus stop in the CBD – towards or under the railway viaduct near the Saraton Theatre, Fitzroy Street westbound near Prince Street and King Street southbound, subject to future consultation.		*		
50T	Relocate the NAB bus stop (in Prince Street, near Fitzroy Street) to around the corner in Fitzroy Street and reconfigure the bus routes to only utilise Fitzroy Street, then on to King Street and an upgraded bus stop in King Street to improve accessibility for public transport users. The NAB stop is a terminus which results in buses sitting and idling between service runs, reducing the amenity of adjacent businesses. If this relocation is not possible, then the stop should be changed to a 'stop-and-go' to minimise bus idle time. The terminus stop should be relocated to a more suitable location.	~			
51T	To improve safety and security, assess lighting of existing major bus stops. Provide compliant lighting or relocate stops to areas covered by existing street lighting.		~		
52T	Review compliance of current bus shelters. Provide new and/or upgraded all-weather, accessible shelters		~		
53T	Support the provision of accessible access at all bus stops.	✓			
54T	Develop a program to progressively provide disability compliant bus stops with bus shelters		~		
55T	Council, in collaboration with the Grafton Taxis, to review the Taxi zone in Pound Street, at Market Square, to provide a more user-friendly space with appropriately designed and clear waiting areas with shade/shelter and to decrease the footprint of the taxi zone. The existing zone provides for approx. 8 parallel spaces, or 12 angle	~			



Deser	amondation (A ation	Priority to com	imence planning works	, design and/or
Recon	nmendation/Action	High (1-2 years)	Medium (3-6 years)	Future (7-10 years)
	spaces, which appears to be in excess of current needs. The length of taxi zone to be determined taking into account usage rates and accessibility.			
56T	Work with taxi providers to improve taxi rank facilities. This should include accessibility, and a safe, comfortable, all-weather waiting area at the Pound Street taxi rank	~		
57T	To improve safety and security, consider lighting of taxi ranks in the CBD, or relocate ranks to areas covered by existing street lighting.		~	
58T	Trial a 'free day' for public transport to get people on board and try it out with the aim of gaining more users.		~	
59T	Better promotion of when and where the services are available, and how to access timetables.			✓
60F	Develop a Road Network Plan to inform investment priorities and opportunities. This will benefit Council for future budgeting for road upgrades and in its applications for State and Federal Government funding. It will also assist in identifying other infrastructure treatments to enhance walking, cycling, public transport, and freight operations.		~	
61F	Plan and cater for freight movements from distribution hubs and industrial areas to the main freight routes, while minimising impacts on surrounding areas.		~	
62F	Ensure that road space is managed consistently with Council's and TfNSW strategic directions.		✓	
63F	Minimise conflict between freight movements and public transport and cyclists by ensuring minimal route duplication and intersection, and where this is not possible, provide sufficient separation between heavy vehicles and other road users, and safe crossing facilities.	✓		



Deere	Recommendation/Action		Priority to commence planning, design and/ works		
Recon			Medium (3-6 years)	Future (7-10 years)	
64F	Enhance the safety along approved B-double routes through residential areas – Summerland Way and Gwydir Highway (Ryan Street, South Grafton). On key intersecting roads, provide advance warning signage on side streets indicating road priority.	~			
65F	Assess existing pedestrian and cyclist crossing points on HV routes. Upgrade crossing safety by providing medians, refuges, and warning signage as required.	~			
66F	Manage vehicle speeds and minimise use of HV engine brakes in residential areas. Install appropriate signage along HV routes. In areas where there are sensitive receivers and/or excessive complaints, Council and TfNSW may need to undertake a road traffic noise assessment	~			
67F	Undertake a review of loading zones and deliveries in the CBD. Where identified issues exist, assess whether loading zones can be incorporated into the parking arrangement. Aim is to provide sufficient provisions for the delivery of goods, at the same time as minimising conflict with other road users, in particular cyclists and pedestrians.		~		
68A	Engage an accessibility consultant or utilise existing in-house expertise such as the Access Committee, to undertake a full review of accessibility across the CBD, to identify areas for improving accessibility. This should include an assessment of existing kerb ramps and crossings		~		
69A	Implement an upgrade program to progressively bring kerb ramps and crossings up to a standard suitable for universal accessibility, including provision of tactile ground surface indicators where required		~		
70A	Develop and implement a program to provide accessible path connections to all public transport stops		✓		
71A	Seek funding for Community Transport service providers to provide transport for people who have difficulty accessing regular public transport			~	



_		Priority to com	Priority to commence planning, design works	
Recor	commendation/Action		Medium (3-6 years)	Future (7-10 years)
72A	Encourage local groups to seek funding through Council grants and other funding sources to provide Community Transport services			✓
73A	Consider partnering with Recharge Scheme Australia (or a similar scheme) to provide safe areas for people to recharge their electric mobility scooter or wheelchair battery, free of charge.		~	
74A	Engage an accessibility consultant or utilise existing in-house expertise such as the Access Committee, to undertake a full review of accessible parking to determine if existing accessible parking is provided in the best locations, or if additional accessible spaces are needed to meet future demands. Council should also monitor if demand and utilisation increase to determine if the provision of additional accessible spaces are necessary. Any new parking should be provided in accordance with the current Australian Standards. If existing spaces are modified, they should also be brought up to current standards. Additional accessible parking needs to be provided near access ramps to the new waterfront, including at the end of Duke Street.		✓	
75S	Manage local roads to improve amenity and safety for users and ensure consistency with the issues and initiatives of NSW Road Safety Strategy 2012-2021 and any refreshed NSW Government road safety strategies.	~		
76S	Consider conducting Road Safety Audits and/or Safe System Assessments to assess known safety issues or crash locations. Undertake any recommended improvements to high-risk issues identified in the audits			✓
77S	A new wayfinding signage system should be installed to include easily identifiable signs providing a logical progression from the major approaches (Fitzroy Street and Pound Street from the bridges, and Prince Street from the north) to and through the CBD, and onto the main side streets and car parking areas. It is recommended that wayfinding signage be installed initially on the three main routes to and through the CBD, and onto the major shopping centres and the public carpark at the Library). Signage could promote walking times to nearby destinations such as the Grafton Regional Gallery,	✓		



Basar	amondation/Action	Priority to commence planning, design and/or works		
Recommendation/Action		High (1-2 years)	Medium (3-6 years)	Future (7-10 years)
	the Library, Market Square, or the waterfront. Wayfinding signage should be provided to direct tourists with caravans and RV's to the proposed new dedicated parking area in Duke Street, behind Market Square.			
78P	Prepare an implementation plan for the actions in this strategy and from the 'Car Parking Audit and Strategy'.	✓		



12. Scope of Engagement

This report has been prepared by Ardill Payne & Partners (APP) at the request of Clarence Valley Council to support a draft Precinct Plan for Prince Street (and the main entrance from South Grafton) with a complimentary Land Transport Strategy and is not to be used for any other purpose or by any other person or corporation.

This report has been prepared from the information provided to us and from other information obtained as a result of enquiries made by us. APP accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this document for a purpose other than that described above.

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13. Attachments

Attachment 1 Car Parking Audit and Strategy



ATTACHMENT 1

Car Parking Audit and Strategy