



Northern Territory Bus Infrastructure Guidelines

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	Department of Infrastructure, Planning and Logistics
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Acronyms	Full form
DDA	<i>Disability Discrimination Act 1992 (Cth)</i>
DIPL	Department of Infrastructure, Planning and Logistics
NTG	Northern Territory Government
TGSI	Tactile Ground Surface Indicator/s

Glossary

The following terms are defined for the purpose of these Guidelines:

Bus shelter means a bus stop with a roofed structure.

Bus stop is a location along a public transport route where passengers wait for a bus to stop, and which allows passengers to safely get on or off the bus before it continues along its route.

Bus stop infrastructure means and includes a bus shelter, sign post or bus totem.

Bus totem means a structure at a bus stop which displays timetable and stop information.

Interchanges refer to an area or point along the public transport network where a passenger can change bus routes, services or modes of transport as part of a single journey. Interchanges can include major stops and park and ride facilities.

Park and ride means facilities which allow customers to 'park' their vehicle and 'ride' public transport to complete their journey.

Sign post or pole means a post labelled "Bus Stop" located at a bus stop that does not have other infrastructure (e.g. a shelter or seating) to indicate it is a bus stop.

1. Introduction

An easily accessible, efficient and safe public transport network supports Territorians to access employment, education and community facilities. Increased patronage encourages bus travel and subsequent reductions in private vehicle usage also has benefits for the wider community, as it reduces traffic, congestion and associated environmental emissions and harm.

The Department of Infrastructure, Planning and Logistics (DIPL) is responsible for the provision of public transport in the Northern Territory.

This includes the management of contracted bus services, public transport infrastructure (bus stops, interchanges and park and ride facilities), network scheduling and routes of service. DIPL also manages the upgrade of infrastructure at existing bus stops and the installation of new bus stop infrastructure on the network to meet the needs of its passengers and the community.

1.1 Purpose of these Guidelines

These Guidelines set out the parameters and processes for the selection, installation, upgrade and maintenance of bus stop infrastructure. The Guidelines are intended for use by professionals in the public transport, land development and community support sectors with an interest in bus infrastructure.

The objectives of the Guidelines are to:

- define the policy context for planning and upgrading bus stops and related bus infrastructure in the Northern Territory
- set out the process to develop new bus stops and to select existing bus stops for upgrade based on public transport information, land use and socio-economic data
- provide information to assist professionals

to meet the requirements for the design and upgrade of bus stops under the *Disability Discrimination Act 1992 (Cth) (DDA)*

- advocates for safe and comfortable street crossings and an accessible environment near bus stop infrastructure
- outlines the typical maintenance activities for bus infrastructure.

By informing a best practice approach, these Guidelines ensure that public transport infrastructure supports the following strategic objectives of DIPL:

- long-term planning that integrates community needs and industry best practice
- deliver the Territory's infrastructure program
- deliver innovative, well regulated, safe and sustainable services
- create an organisation with the values, capacity and capability to deliver effective services.

The practical application of these Guidelines may differ depending on the circumstances associated with individual bus stops and the surrounding land use.

1.2 Policy context of these Guidelines

These Guidelines should be considered alongside the following policies and strategic plans.

Policies and strategic plans applicable to these Guidelines	
DOCUMENT	Relationship to these Guidelines
Northern Territory Infrastructure Plan	Directs the delivery of infrastructure in the Northern Territory. Identifies the ongoing upgrade of bus stops through to 2028.
Planning for a Vibrant Future, DIPL	Supports future development as set out in the 10 Year Infrastructure Plan. Envisages better access to public transport to connect areas surrounding Darwin CBD.
Northern Territory Compact Urban Growth Policy	Provides a decision making framework for orderly urban growth. Directs that urban growth occurs around public transport nodes.
Strategic land use plans, Darwin, Palmerston, Litchfield and Alice Springs subregions	Coordinates urban growth at specific locations. The plans generally propose that land development precincts have access to public transport.
Final Report of the Territory Economic Reconstruction Commission	Sets out key strategies and actions to increase private sector investment and jobs growth. Describes investment in infrastructure and transport systems as a key enabler of industry growth.
Strategic plans and annual reports, DIPL	Describes the Department's goals, strategies over a four year period, and its yearly activities and achievements.

2. What is a bus stop?

For the purpose of these Guidelines, a bus stop is a location along a public transport route where passengers wait for a bus to stop, and which allows passengers to safely get on or off the bus before it continues along its route. A bus stop will include a portion of the road verge where the bus can stop safely.

Bus stops are further referenced in the *Public Transport (Passenger Safety) Act 2008* and the *Commercial Passenger Road Transport Act 1998*, for the purpose of providing for the safety of passengers and the regulation of commercial vehicles, respectively.

2.1 What should a bus stop do?

Bus stops and interchanges create the public's first impression of the bus service in Darwin and Alice Springs.

Bus stops and related infrastructure provide a designated location to help bus services operate efficiently, ensure convenience for passengers and provide safety for pedestrians and other road users as buses pick up and drop off passengers.

DIPL selects locations for new bus infrastructure and makes upgrades to existing bus infrastructure that responds to the needs of the community, including land use activity and demographics.

2.2 Types of bus stops

These Guidelines identify 5 broad categories of bus stops in Darwin and Alice Springs which will have different levels of infrastructure according to their use and individual site characteristics and constraints. The categories include: minimum boarding stop, basic bus stop, intermediate bus stop, major bus stop and informal bus stop.

The categories represent different levels of bus infrastructure which is considered in selecting appropriate works for installing new bus stops or upgrades to existing bus stops. This informs a more uniform approach to design so that passengers can use bus infrastructure conveniently and with a consistent experience across the public transport network.

Definitions of each category use broad quantitative indicators for passenger use and service frequency, and are not prescriptive.

As outlined in Sections 3 and 4 of these Guidelines, other factors such as socio-economic profiles and surrounding land uses are also considered as part of a decision to install or upgrade a particular bus stop type. In considering bus stop types in Alice Springs, a reduced scale will be applied to the quantitative indicators to reflect the population size and passenger demand.

The follow provide guidance on the main infrastructure components that service each bus stop type, and is not an exhaustive description of all possible infrastructure or design requirements.



Photo 1: showing Palmerston Interchange at night.

Bus stop type

Typical supporting infrastructure

Minimum boarding stop

Definition including quantitative indicators

A bus stop that is less frequently used and will typically have the following characteristics:

- **Low frequency services**
No more than one service per hour passes the bus stop.
- **Low passenger demand**
Less than 1000 passengers per year use the bus stop. Generally, these are outbound bus stops. This is because passengers on outbound routes (for example, routes away from employment precincts such as Darwin City) will immediately leave the bus stop area after they leave the bus. Generally speaking, there is no practical need for passengers to wait at these bus stops.
- **Typical location**
Residential, industrial areas. Outbound routes.



Photo 2: typical supporting infrastructure includes a pole at a minimum boarding stop.

Bus stop type

Typical supporting infrastructure

Basic bus stop

Definition including quantitative indicators

A bus stop that is moderately used and will typically have the following indicators:

- **Moderate frequency services**
2-3 services per hour pass the bus stop.
- **Moderate patronage**
Between 1000 – 5000 passengers per year use the stop.
Generally, these can be inbound bus stops. This is because passengers on inbound routes (for example, routes to employment precincts such as Darwin City) will use seating and shelter to wait for a bus.
- **Typical location**
Residential, industrial areas. Inbound routes.

*Note: As indicated in Photos 3-5, the level of infrastructure at this bus stop type will differ depending on the individual characteristics and constraints of the site, such as the footprint area available at the bus stop, seating, connecting infrastructure such as footpaths, adequate working space for construction and existing underground services.



Photo 3: typical supporting infrastructure at a basic bus stop. This stop infrastructure has no seating.*



Photo 4: further typical supporting infrastructure at a basic bus stop. This bus stop infrastructure has seating.*

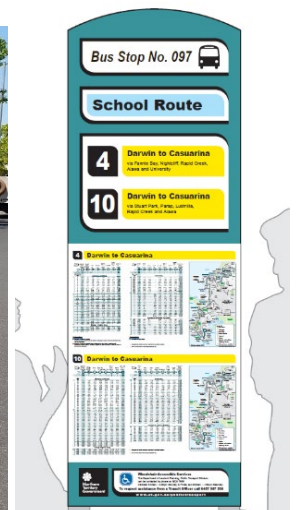


Photo 5: further typical supporting infrastructure at a basic bus stop can include a shelter type 15 and tactile ground surface indicators.*

Intermediate bus stop

Definition including quantitative indicators

A bus stop that is moderately used according to the abovementioned indicators of a basic bus stop, along with the following additional indicators:

- **Proximity to urban land uses**
Within 400 metres of medium density residential areas and/or commercial/employment activity areas.
- **Located on arterial routes**
These bus stops will also typically be located along primary arterial routes.
- **Typical location**
Major transport corridors. Near commercial, retail sites or community facilities.



Photo 6: type 14a – 3 bay with closed back.



Photo 7: type 14b – 4 bay with open back.



Photo 8: type 14c – 4 bay closed back.

Bus stop type	Typical supporting infrastructure
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Major bus stop

Definition including quantitative indicators

A bus stop that is highly used and will typically have the following indicators:

- **High frequency services**
More than 3 services per hour pass the bus stop.
- **High passenger demand**
Over 5000 passengers per year use the bus stop. In addition, these sites may have the following characteristics:
 - used as interchanges
 - proximity to land uses as described in the abovementioned bus stop type.
- **Typical location**
Near major retail and employment sites.

Major bus stops may have the supporting infrastructure as shown on photos 6-8.

In addition, typical infrastructure for major bus stops include bus interchanges, digital totems and facilities such as toilets or park and ride areas.



Photo 9: Casuarina Bus Interchange. Bus interchanges can be identified as major bus stops for the purpose of these Guidelines.



Photo 10: an example of secure bicycle storage facilities and a bus stop shelter installed at Coolalinga Park and Ride.

Bus stop type

Typical supporting infrastructure

Informal bus stops

Definition

A bus stop used along identified Hail 'n' Ride bus services in the Darwin rural area. This is not a sign-posted bus stop.

- **Typical location**

Rural areas where public or school buses operate.

There is no supporting infrastructure for a hail and ride service.

Passengers living in the Darwin rural area might need to use an informal bus stop to catch a public or school bus. Informal bus stops are not official or signposted. They are locations identified as a safe place for a bus to stop and are generally agreed between bus operators and passengers.

Information for Hail 'n' Ride services and how to catch a bus in the rural area can be found on our website nt.gov.au/publictransport or contact Public Transport on 8924 7666.

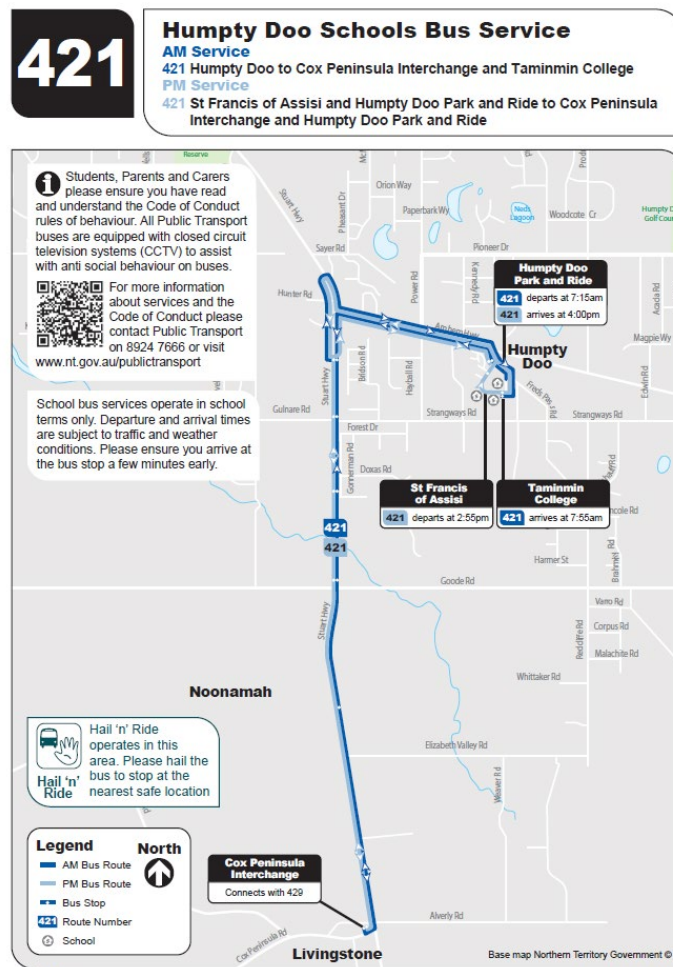


Figure 1 - showing a notice of a Hail 'n' Ride service operating on a bus route.

The range of features and components to be considered in the planning, design and construction of bus stops are summarised at Figure 2.

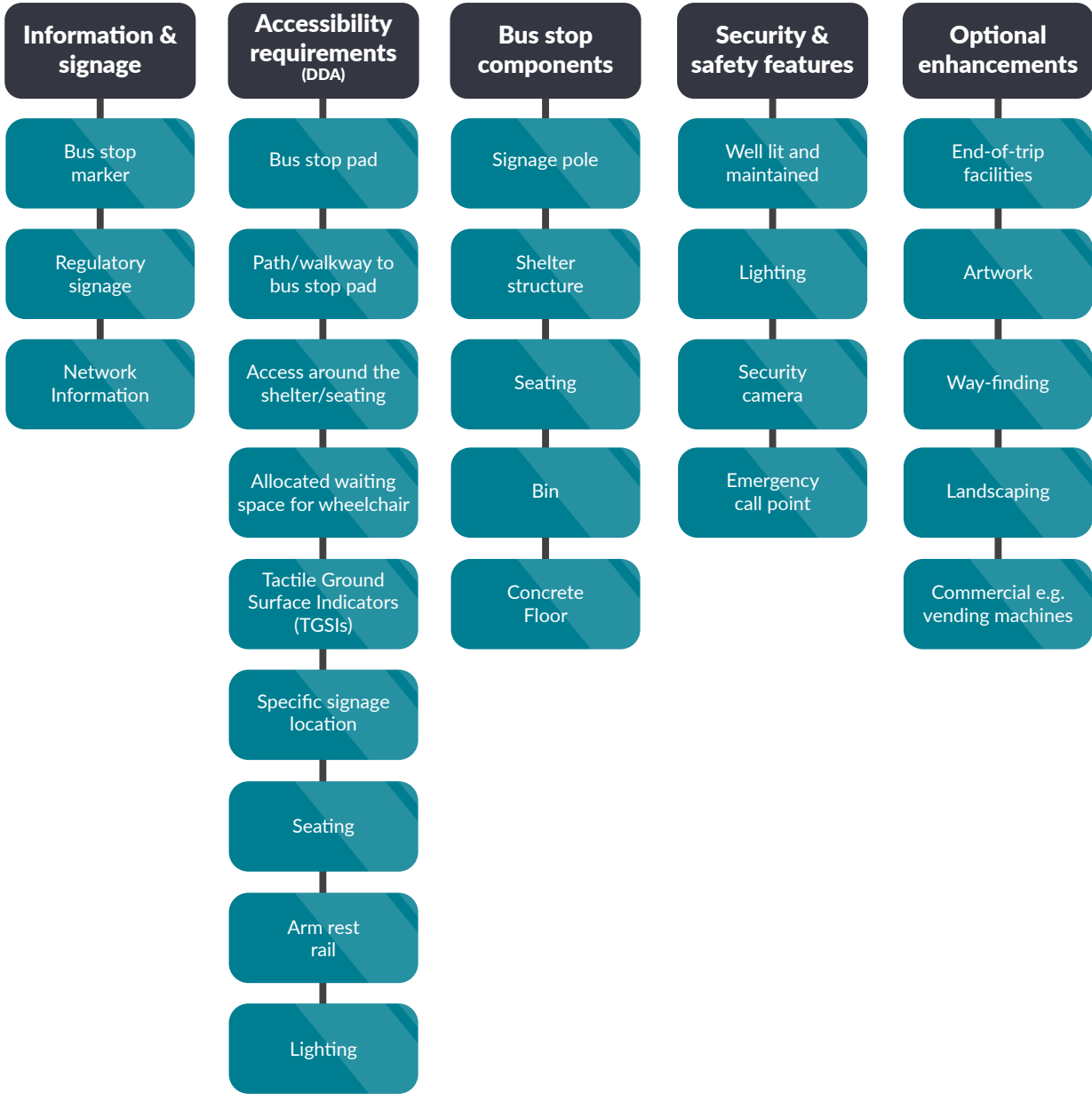


Figure 2 – potential bus stop features and components

The components and features shown in Figure 2 are not typically installed in every bus stop type. For example, not every bus stop will have a bin, security camera, emergency call point and vending machine. The purpose of Figure 2 is to show the possible components that are considered in designing bus infrastructure.



Photo 11: showing some typical components incorporated into bus stop infrastructure.

2.3 Typical infrastructure and features

All bus stop infrastructure and features will be designed to meet the following principles:

- Access is convenient and safe.
- Provides clear information.
- Resistant to damage and vandalism.
- Reduced maintenance requirements to reflect value for money over the life of infrastructure.

Poles/sign posts

General location: poles or sign posts are installed at minimum boarding stops (as defined on page 5) to identify the area as a bus stop to passengers, bus drivers and other road users.

Two types of sign posts are used as minimum boarding stops:

- Yellow poles to indicate a public bus stop along a designated bus route.
- Blue sign poles for bus stops specifically located to service special events or school bus stops.

Text is placed on each pole to indicate its use. An example of this infrastructure and the text layout is shown on Photo 2, page 5.

Signs can be placed on a stand-alone post or attached to an existing street post.

Totems

Totems will generally be installed at basic bus stops and some intermediate bus stops. Figure 3 shows the standard design of a totem.

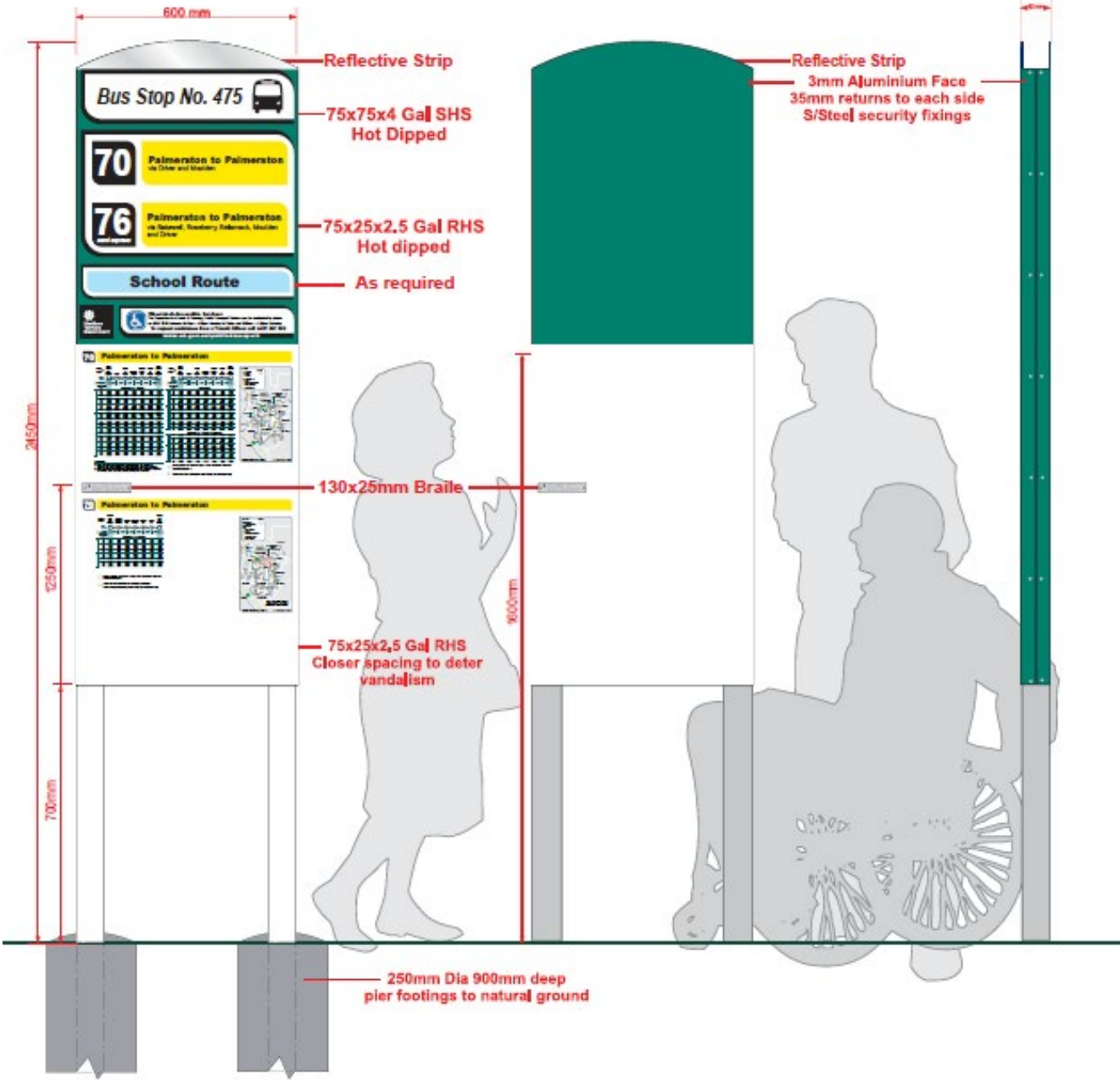


Figure 3 - totem design

Digital totem and timetable

Digital totems and timetables are installed at major bus stops. This infrastructure allows passengers to receive live information on the relatively high number of services passing through the stop, as well as audio information.



Photo 12: front view of digital totem design located on Cavenagh Street, Darwin City.

Shelters

Shelters are used at basic, intermediate and major bus stops as outlined in Section 2.2. There are 4 options of shelters that may be installed across the bus network. Selection between shelter options is dependent on the specific constraints and opportunities at each site.

Park and ride facilities

Park and ride facilities may be used at major bus stops. These facilities consider the entire journey that passengers make to use a bus service and can allow for parking, pick up and drop off at bus stops. Design features should include adequate footpaths, lighting, parking area, CCTV, shade and signage to assist passengers in accessing and locating the bus stop from a parking facility.

Bicycle racks

Bike racks may also be installed at major bus stops, as shown in Section 2.2, Photo 8.

School bus stops

School bus stops service dedicated school routes and are not used by the general public. Although there are certain exemptions for dedicated school bus services to comply with specified standards in the DDA, it is preferable that new school bus stops address these requirements.

School bus stops (special needs)

DIPL provides a bus service for school students with special needs. Where appropriate, students are expected to meet the bus service at designated pick-up points. This ensures time spent on the bus is kept to a minimum for all students and enables bus services to run as efficiently as possible.

Designated pick up and drop off points are located with consultation with the parents and schools. The majority of these are located at bus stops located across the public and school bus network or at large facilities such as a swimming pool or other community facility,

Residential pick-up locations are acceptable on some of the services, once all the transport factors have been considered, including:

- ability for the vehicle to navigate residential streets without a requirement to reverse or conduct a three-point turn
- impacts to travel time for other students
- the ability for the individual to attend a designated pick up point to enable a consolidated pick up for students.

The Department requires all special needs students using the service to be met by a parent or guardian at the bus or drop-off point.

Bins

Bins will only be installed at bus stops with greater than 10 users per day unless the bus stop is close to high use facilities such as schools or shops.

3. Installing new bus stops

Planning for new bus stops contributes to the development and operation of a shared road network, enabling safe and the efficient movement of private, shared and commercial vehicles, people and goods.

Strategically planned locations of bus stops within the network are critical for passengers, bus operators, traffic and the overall performance of the bus network.

3.1 Selecting new bus stop locations

New bus stops are prioritised when either:

- A new bus route is required to support new residential, commercial or industrial developments. In this context, the new bus route would service a major subdivision of land after the grant of titles and permits to occupy the developed area.
- An existing bus route is extended, shortened or otherwise varied to support changing patterns of land use or transport use.

If new bus stops are required to service new land developments, then the developer will fund the cost of the installation works as part of the overall design and servicing requirements for the development. Specifications and conditions of works will be set by DIPL according to these Guidelines, in particular Sections 3 and 4.

The first step in determining new bus stop locations is therefore to plan a new or varied bus route.

It is not possible within these Guidelines to set out the precise driving factors, circumstances

or thresholds that determine when a new or varied bus route (and therefore new bus stops along that route) will be required.

Any new or varied bus route is a major public transport initiative which requires a detailed economic analysis and business case. Relevant matters that will inform any such initiative include the two-way relationship between public transport and land use requirements, the whole-of-network effects within the public transport system, inter-modal effects such as the transfer of travellers between car, bicycle and public buses and other changes that impact road traffic such as population or density increases and employment activity.

Route planning

In assessing and designing a new or varied bus route, developers, service authorities and planners should have regard to the principles and methods in the Australian Transport Assessment and Planning Guidelines (M1 – Public Transport). These include methods for forecasting how future passenger demand would be affected by potential service and the network impacts of quality changes such as shorter trip lengths and higher bus service frequencies.

New of varied routes may be located along arterial, distributor roads and some connector roads in order to service passenger demand. As part of this process, proposed routes will ensure appropriate connectivity to employment activity areas including commercial and industrial zoned land.

New bus stop planning

Appropriate locations for bus stops along the route should be selected as part of refining and finalising a proposed new or amended route of travel.

In addition to the technical considerations set out in Section 3.2, the selection of specific locations for new bus stops within a new or amended bus route should have regard to the following factors:

- Bus stops should be adjacent to organised recreation areas, schools, medical facilities, commercial or industrial precincts, seniors' villages and recreational facilities along the route to provide an active and clear public transport connection to these areas.
- Bus stops should be positioned in proximity to medium or high-density residential areas to service higher patronage numbers.
- Additional bus stop locations should be considered to a coverage of approximately 400 - 600 metres between bus stops in urban areas to ensure walkability to bus stops. This general distance is consistent with Part 5 of the Austroads Guide to Traffic Management Part 5 and the Northern Territory Planning Scheme.
- Planning for new bus stop locations should be generally cognisant of the principles in Section 4.2 of these Guidelines. This means that, in addition to expected passenger demand and service frequency, consideration should be given to the type of existing or future facilities and land uses in proximity to the bus stop, such as schools or aged care facilities and the demographics of passengers that will likely frequent the bus stop including levels of socio-economic advantage and disadvantage.



Photo 13: showing an example of a bus shelter Type 14C (4 bays) located near Palmerston Hospital.

3.2 Technical considerations

Figure 4 below provides a high level overview of factors to consider in planning for bus stop locations, broadly summarised as:

- Verge-side considerations to enable accessible and convenient passenger access to and from the bus.
- Road-side considerations to enable the bus to safely stop and take off in traffic with minimal disruption to other road users, as well as the safety of passengers crossing the road to approach and leave the bus stop.

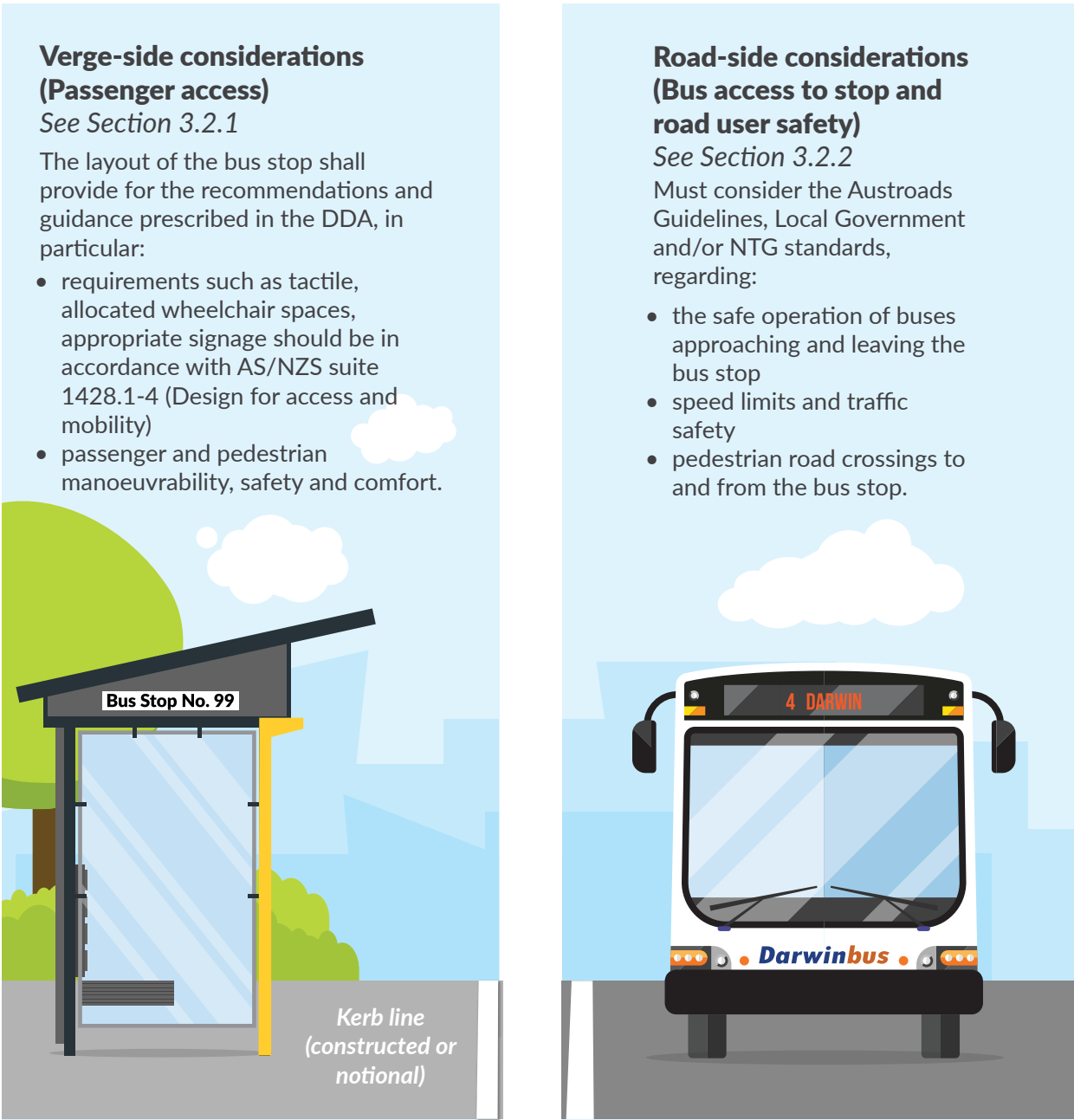


Figure 4 - L to R concept of verge-side and road-side considerations in selecting and installing new bus stops.

3.2.1 Verge-side considerations

Ensuring bus stops allow for the safety and convenience of pedestrians and passengers is essential in the bus stop planning process. To achieve this, consideration should be given to the following factors:

- The standard kerb height to enable the use of DDA compliant access ramps is 150 mm. Where there is no kerb, the bus stop should be constructed with a raised slab at 150mm high or to an equivalent compliant height.
- The bus stop should contain adequate features to achieve compliance with the DDA. Further detail about the statutory processes related to DDA compliance is detailed at Section 5.
- Existing underground and overhead services should be identified and comment should be sought from the relevant service authorities regarding the installation, use and maintenance of the bus stop.
- The availability of a safe and adequate space to place a partner bus stop on the opposite side of the road (if required).
- The availability of adequate street lighting, nearby passages or laneways.
- If positioned in a residential area, proximity to driveways.
- If there are any cycle ways or bicycle storage facilities which may present possible danger to cyclists in their interaction with buses.
- Adequate space for waiting passengers and space for the installation of future upgrades to the bus stop if required.
- Ensure the verge is wide enough to accommodate anticipated infrastructure, including clearances to property boundaries, fences and vegetation.

3.2.2 Road-side considerations

Consideration should be given to the following factors relating to the road-side environment:

- Speed limit and traffic management strategies to allow the safe operation of the bus stop in the road environment must be subject to a site specific assessment and design.
- To minimise the risk of the bus interfering with bus stop infrastructure on approach to the bus stop, placement of a bus shelter or pole/sign needs to take into account the leaning distance of the bus as it kneels to pick up passengers, and how far the bus will protrude from the face of the kerb (constructed or notional).
- The adequate width of collector/distributor roads into residential, commercial or industrial areas should be subject to a site specific assessment and analysis in order to support the stopping of a bus while allowing for local traffic.
- Subject to road reserve width, bus stops on rural road classifications should be constructed as an indented bay offset from the traffic lane. Within the indented bay, provide kerb or constructed bus stop on slab above roadway. Transition kerb from concrete bus area to road level.
- The placement of pedestrian crossings in the vicinity of bus stops should be subject to a site specific assessment and analysis based on the road environment and principles in the Austroads Guide to Road Design Part 4.
- Bus stops should be clearly visible to both drivers of buses and other vehicles.
- Where bus stops are required on both sides of an undivided road they should be staggered with the rear of the buses opposite so that passengers are encouraged to cross the road behind the bus where sight distance between passengers and other traffic is best. This also minimises disruption to other traffic (Austroads Guide to Traffic Management Part 5).

3.2.2 Road-side considerations (continued)

- Trees, signage and other potential obstructions that are located on the verge-side must be considered to ensure that buses can pull in and out of bus stops safely.
- The type of infrastructure and passengers waiting at bus stops should not obstruct any road users' view of intersections, pedestrian crossings and other traffic.
- Whether there are any cycle ways or bicycle storage facilities which may present possible danger to cyclists in their interaction with buses.
- Major and intermediate bus stops should be indented and may require adequate space in independent bays, depending on the number of services arriving consecutively and queuing vehicles. This will minimise congestion and delays to services and other traffic Austroads Guide to Traffic Management Part 5.
- Bus stops should allow for the efficient access and egress for bus vehicles to achieve travel time savings and reliability (Austroads Guide to Traffic Management Part 5).
- Ensure the bus stop does not obscure sightlines along the road to nearby road intersections, crossings or property accesses, particularly on curved roads.

Austroads Guidelines

The location and installation of bus stops and supporting infrastructure should have regard to the following Austroads Guidelines, which have been referenced partly in Sections 3.2.1 and 3.2.2:

- Austroads Guide to Road Design Part 3: Geometric Design
- Austroads Guide to Road Design Part 4: Intersections and Crossings: General
- Austroads Guide to Traffic Management Part 5: Link Management.

4. Upgrading existing bus stops

This section informs how DIPL will prioritise and assess existing bus stops for upgrade, to form the basis of the following upgrade programs as part of its annual budget process:

Program	Purpose of program
Bus Stop Type Upgrade Program	<p>To upgrade existing bus infrastructure based on the selection criteria at Section 4.3 and Appendix A.</p> <p>Converts existing bus stops to a higher type as identified in Section 2.1 of these Guidelines.</p> <p>Example:</p> <ul style="list-style-type: none">• Installing a shelter to upgrade a basic bus stop to a minimum boarding or intermediate bus stop. <p>Note: Upgrades under this program will comply with the DDA to the maximum extent possible.</p>
Bus Stop DDA Upgrade Program	<p>To ensure existing bus infrastructure complies with the DDA to the maximum extent possible.</p> <p>The key purpose of this program is to meet DIPL's legal obligations under the DDA.</p> <p>Example:</p> <ul style="list-style-type: none">• Installing tactile ground surface indicators, upgrading lighting and expanding hardstand areas at a basic bus stop.

4.1 Overarching priorities

The following are DIPL's bus stop upgrade priorities, which align with the upgrade selection criteria at Section 4.4 and are reflected in the abovementioned upgrade programs:

- Improve bus stops to meet any accessibility requirements under the DDA.
- Improve underdeveloped bus stops where:
 - supporting street level infrastructure exists (connecting footpaths, adequate street lighting, pedestrian crossings)
 - it is physically feasible (constructability).
- Install shelters at underdeveloped bus stops where feasible, according to the processes and criteria in this section.
- Maintain the public consultation processes in Section 4.5 to ensure community and passenger input.
- Upgrades of bus stops should respond to passenger demand, the needs of the immediately surrounding community and its current and foreseeable land uses, and consider factors such as relative socio-economic advantage and disadvantage.
- Work with local government jurisdictions to identify deficiencies in the streetscape around existing bus stops (lack of connecting paths, kerbs, etc).
- Pursue arrangements with local government jurisdictions and utilities providers to advocate for upgrading infrastructure in the streetscape to add value to bus stop upgrades, such as advocating for the construction of any connecting paths, street lighting, and safer road crossings.

4.2 How potential upgrades are identified and assessed

Approximately 650 public bus stops exist in Greater Darwin and Alice Springs. It would be impractical for these Guidelines to attempt to identify every instance in which a bus stop will be proposed for upgrade or lay out all decisions that lead to an upgrade proposal.

Figure 5 shows a broad outline of how proposals for bus stop upgrades are identified through various sources, and then assessed by DIPL:

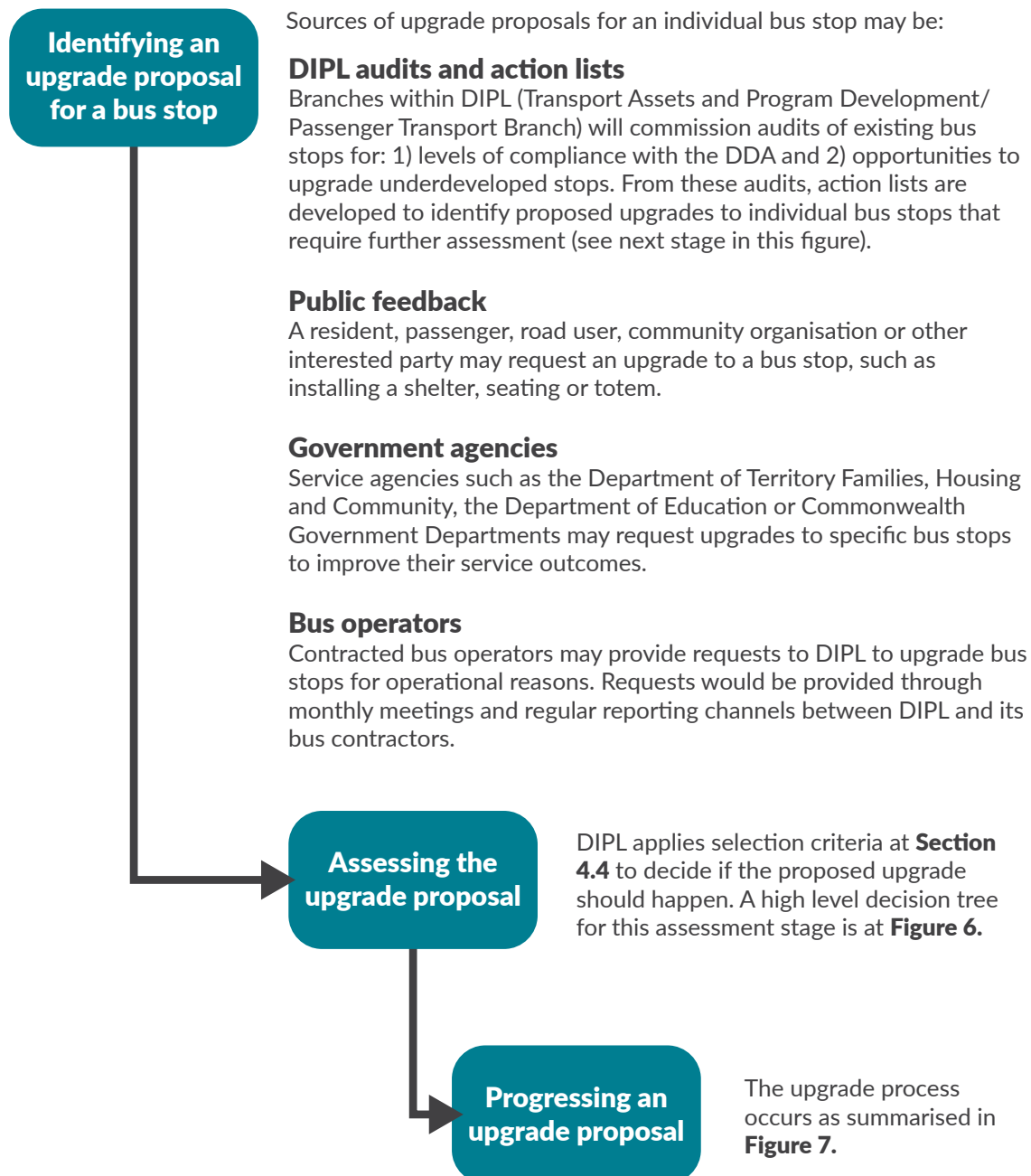


Figure 5 – how potential upgrades are identified and assessed.

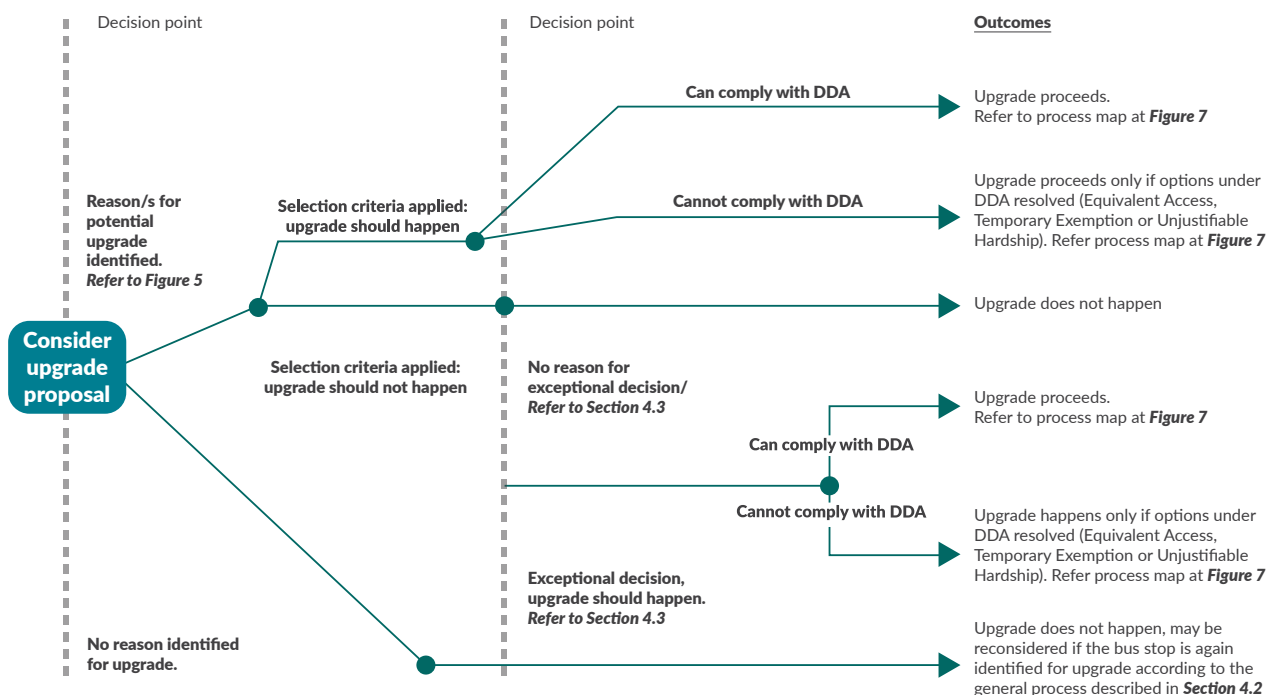


Figure 6 – high level decision tree showing on assessing proposals for bus stop upgrades.

The decision tree at Figure 6 shows how DIPL makes an assessment of a proposal to upgrade an existing bus stop and the outcomes of that assessment. Significant decisions and events are shown. However, these Guidelines do not aim to map out DIPL’s normal internal decisions and administrative actions during its assessment of bus stop upgrades.

As part of assessing potential upgrade works, DIPL will also ensure that proposed works are funded within its existing budget allocation and will comply with NT Government financial management and procurement requirements.

If upgrades are proposed through the Bus Stop Type Upgrade Program, the assessment will decide on whether or not to proceed with the upgrade based on two key questions:

1. Should the upgrade happen?



Selection criteria is applied
(Refer to Section 4.43)

2. Can the upgrade meet DDA requirements?



Compliance check by DIPL
(Refer to Section 4.4 and 5)

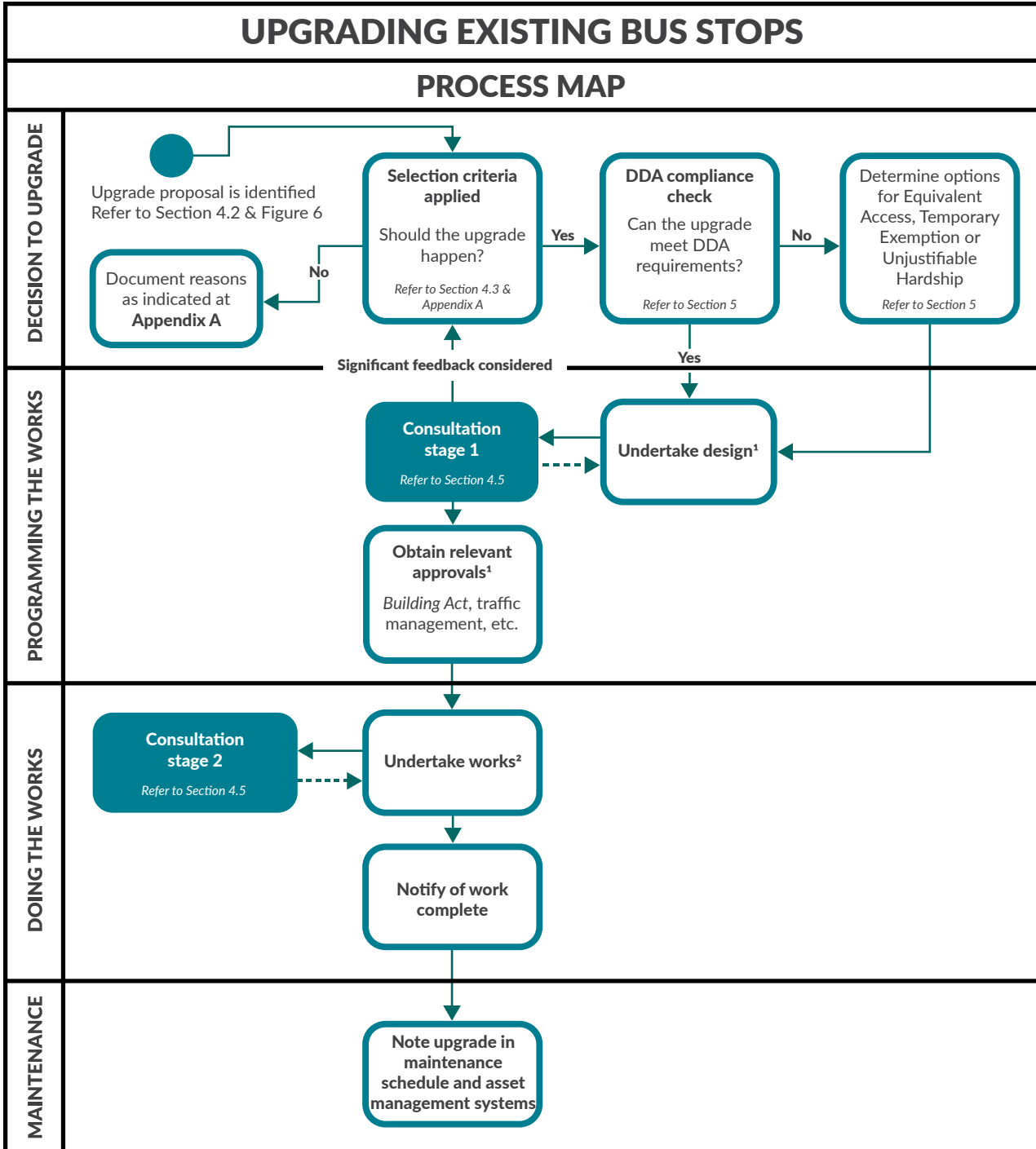


Figure 7 - shows a process map for upgrading existing bus stops.

Note 1: Upon a decision to upgrade and design proceeding, upgrade works for the individual bus stop will be done through the Bus Stop Type Upgrade Program or the Bus Stop DDA Upgrade Program. Explanations of these programs are at Section 4.1.

Note 2: Statutory processes and approvals are undertaken during programming and upon completion of work.

Note 3: Contracting for works will follow normal NTG procurement guidelines.

4.3 Selection criteria: Should the upgrade happen?

DIPL assesses requests or proposals to upgrade bus stops under the Bus Stop Type Upgrade Program by applying the selection criteria at Appendix A.

Applying the selection criteria will result in a rating of the upgrade request/proposal up to 100, to inform:

- if the proposed upgrade should happen and why (*rating above 50*)
- if the proposed upgrade should not happen and why (*rating below 50*)
- how to set priorities in the Bus Stop Type Upgrade Program (*by highest rating lighting*).

Explaining the criteria

The following is an explanation of each selection criterion and should be read with Appendix A.

The selection criteria are measurable indicators of a bus stop's use and potential value to the community, and consist of: patronage, socio-economic profile of immediate area, frequency of services, proximity to employment, community and/or commercial land uses and use as a school bus stop. Collectively, the selection criteria will highlight the economic and social factors relevant to the area that the bus stop will service.

This approach ensures that upgrade proposals will support the needs of the surrounding community and that DIPL appropriately prioritises its potential upgrades works.

Scores of 1, 2 or 3 are given to each criterion to complete the assessment. The scoring result depends entirely on ranges of objective data which are unique to each criterion and externally controlled. Accordingly, a subjective scoring scale cannot be applied to any of the selection criteria.

Each criterion is weighted out of 100%. The weighting reflects the overarching priorities identified in Section 4.1 and the purpose of these Guidelines.

Appendix B shows worked examples of applying the selection criteria to assess proposed bus stop upgrades in Greater Darwin.

In considering bus stop upgrade proposals in Alice Springs, a reduced scale will be applied to the quantitative indicators in criterion A and C to reflect the population size and passenger demand.

Criterion	What this criterion considers
<p>A</p> <p>Patronage (15% weighting)</p> <p>Thresholds Score 1: <1000 boardings per year Score 2: 1000 - 5000 boardings per year Score 3: >5000 boardings per year</p>	<p>Passenger demand for the bus stop, which indicates economic development.</p> <p>Measured by: Patronage numbers recorded by DIPL.</p> <p>Data source and basis: Total annual boarding counts at the bus stop location, recorded in the bus vehicle ticketing machine.</p>
<p>B</p> <p>Socio-economic profile of immediate area (30% weighting)</p> <p>Score 1: IRSD Quintile 4 or 5 (least disadvantaged) Score 2: IRSD Quintile 3 Score 3: IRSD Quintile 1 or 2. (most disadvantaged)</p>	<p>A statistical score (IRSD) of the relative disadvantage of the people living near the bus stop. This score takes into account the following data within a part-suburb area:</p> <ul style="list-style-type: none"> • percentage of low income earners • percentage of nearby dwellings with no cars • percentage of unemployed • percentage of people employed in low skill jobs • other indicators of disadvantage such as education levels of residents and market rent. <p>Measured by: 2016 socio-economic indexes for areas, recorded by the Australian Bureau of Statistics (ABS).</p> <p>Data source and basis: 2016 Census data, compiled by the ABS, to reflect the average level of disadvantage of a part-suburb area.</p> <p>Note: The next Census of August 2021 will be incorporated in this criterion when available.</p>
<p>C</p> <p>Frequency of services using the bus stop (10% weighting)</p> <p>Score 1: Up to one service per hour Score 2: 2-3 services per hour Score 3: More than 3 services per hour</p>	<p>Indicator of demand for the bus stop.</p> <p>Measured by: Service information recorded by DIPL bus contractors. Data is derived from in-vehicle geospatial information systems.</p>

Criterion	What this criterion considers
<p>D</p> <p>Proximity to employment, community, dense residential and/or commercial land uses (30% weighting)</p> <p>Score 1: Farther than 400 metres from the above land uses.</p> <p>Score 2: Within 400 metres of medium dwelling residential areas (Zone Medium Dwelling).</p> <p>Score 3: Within 400 metres of:</p> <ul style="list-style-type: none"> • Community Purpose Zone land • Organised Recreation Zone land • Seniors villages, High Density Zone, Industrial Zone, Commercial or Service Commercial Zone land. 	<p>Land use activity that the bus stop services, which indicates economic development.</p> <p>Measured by: Land use zoning around the bus stop, Northern Territory Planning Scheme.</p> <p>Data source and basis: Zoning of land in the cadastre of the Northern Territory through Records of Administrative Interests to land, held by the Registrar-General. Reflected in the Northern Territory Land Information System and relating mapping products.</p>
<p>E</p> <p>Use as school bus stop (15% weighting)</p> <p>Score 1: Used as a dedicated school bus stop only.</p> <p>Score 2: Used as a mixed service bus stop with one school route service.</p> <p>Score 3: Used as a mixed service (both urban and school use) bus stop with more than one school route service.</p>	<p>Bus stops used by school bus routes indicate that a significant portion of passengers using the bus stop will be students. Such bus stops will receive less priority for upgrade as their use by students is limited as follows:</p> <ul style="list-style-type: none"> • on inbound school routes, students wait at the bus stop for a limited time in the morning, once per day • on outbound school routes, students will immediately leave the bus stop area rather than use its infrastructure. <p>Measured by: Asset and service information recorded by DIPL.</p> <p>Data source and basis: Use as a school bus stop is recorded by the Department of Education and DIPL.</p>

Applying the selection criteria

DIPL will use the criteria matrix at Appendix A to determine whether the upgrade should happen, by applying the:

- weighted score against each criteria
- total weighted score as follows:
 - total rating of more than 50 > the upgrade should happen
 - total rating of less than 50 > the upgrade should not happen.

Exception decisions

In assessing whether or not a bus stop should be upgraded, it is not always appropriate to exclusively rely on the selection criteria set out above. While the selection criteria are measurable data that can be applied to each bus stop, the individual site characteristics of a bus stop may further inform the merits of an upgrade proposal.

Accordingly, the Director Passenger Transport may make exceptional decisions regarding upgrade proposals, in consideration of site specific factors such as:

- the characteristics of the location that may warrant upgrade, such as lack of existing shade
- reports of anti-social behaviour around the bus stop that may be further influenced by upgrade works (e.g. frequent vandalism)
- feedback from the consultations which demonstrates an upgrade is likely to result in detrimental impacts to the community such as business losses, disruptions to services, etc.
- priorities to meet obligations under the DDA
- other considerations to support safe, efficient and reliable transport services.

4.4 Compliance Check: Can the upgrade meet DDA requirements?

DIPL determines that an upgrade should happen according to the selection criteria or by an exceptional decision, then it will determine if the proposed upgrade can comply with the DDA.

Section 5 of these Guidelines outlines general considerations for determining how compliance with the DDA can be achieved, and relevant processes that apply if compliance cannot be achieved.

4.5 Consultation

Public and stakeholder consultation can influence the exact location of bus infrastructure.

The objectives of the consultation process are to:

- inform neighbouring property owners and occupiers at proposed bus stop upgrade locations about the details of the upgrade
- provide reasons for the upgrade proposal based on DIPL's assessment of the selection criteria (refer Section 3.2 and Appendix A) and its assessment of compliance requirements to achieve accessibility (refer Section 6.2 and Appendix B)
- allow DIPL to consider feedback about the upgrade proposal from adjacent land owners, the public, councils and service providers.

Consultation is an opportunity to receive significant feedback which might not have been considered previously. Significant feedback can include issues such as the upgrade proposal being likely to cause an unacceptable disruption to services or detrimental impacts to an amenity.

Feedback of this nature will be considered on a case by case basis by the Director Passenger Transport to determine if the upgrade should occur or should be modified in light of the issues raised. Generally speaking, feedback

received during consultation should relate to the selection criteria at Appendix A.

Consultation will occur in two main stages:

Consultation stage 1

(Refer Figure 7, “Programming the works”)

- Occurs during finalisation of programming and before going to tender for the upgrade works.
- DIPL will contact affected landowners and occupiers through letter box drop, door knocking or arranging a one-to-one meeting with neighbouring owners/occupiers.
- Feedback may inform changes to design or the proposed bus stop category.
- DIPL will also consult with councils, bus operators, disability representative organisations and service authorities (as applicable) to seek comment about the proposed upgrades.

Consultation stage 2

(Refer Figure 7, “Doing the works”)

- Occurs during construction.
- DIPL inform residents, the general public and operators of any traffic management plans.
- Informs how any construction impacts (noise, dust, etc.) will be managed.
- Allows for a point of contact for residents during construction to manage any impacts.

4.6 Timing

Each year funding is allocated to the Bus Stop DDA Upgrade Program and Bus Stop Type Upgrade Program.

An audit of all bus stops is undertaken every 5 years. These audits identify bus stops that should be identified for upgrade based on the type of bus stop infrastructure at the bus stop and any issues with compliance. This process is further explained in Figure 5.

A timeframe of 2 financial years is typical to complete the process outlined in Section 3.1, depending on the nature of the design.

Selected bus stops may be subject to the following constraints that could result in delaying or cancelling the upgrade:

- During consultation, residents may provide feedback about proposed sites leading to an exception decision that the upgrade should not go ahead.
- Underground services may lead to delays in shelter installation.
- Tenders for installation may be processed in work stages based on location and contractor resources, so installation timeframes may vary.
- Part of the installation may be granted to sub-contractors (e.g. tactiles, solar lighting, and signage) which needs to be arranged by the contractor and can affect timing.

5. Compliance

5.1 Legislation and standards

A summary of the key legislation, standards and guidelines to be considered in the planning, design and installation of bus infrastructure is set out below:

Legislation/Standard	Summary
<i>Disability Discrimination Act 1992</i> (Cwth) ("DDA")	<ul style="list-style-type: none">• The principal legislation in Australia to address discrimination against people with disabilities.• Under the DDA, it is unlawful to discriminate in providing access to the built environment and the provision of public transport.• Enforcement relies primarily on complaints mechanisms through the Australian Human Rights Commission.
<i>Building Act 1993</i> (NT)	<ul style="list-style-type: none">• Applies to bus stop shelters and interchange buildings that are located in Building Control Areas in the Northern Territory.
<i>Disability Standards for Accessible Public Transport 2002</i> (known as the "Transport Standards")	<ul style="list-style-type: none">• Applies to bus stops and related infrastructure.
<i>Disability (Access to Premises – Buildings) Standards 2010</i> (known as the "Premises Standards")	<ul style="list-style-type: none">• Generally applies to interchange facilities or bus stops that are part of a larger building.
Australian Standard AS 1428 'Design for access and mobility' series (AS 1428.1, AS 1428.2 and AS/NZS 1428.4.1)	<ul style="list-style-type: none">• Technical requirements underpinning the Transport Standards and the Premises Standards.

While the list above mentions key legislation and standards that apply to bus infrastructure management, additional requirements under other legislation may apply depending on the nature, extent and location of the works. Specific statutory approval processes for individual works should be determined prior to commencement. Examples may be legislative requirements under the *Environment Protection Act 2019* or authority certificates under the *Northern Territory Aboriginal Sacred Sites Act 1989*.

Compliance target

The Northern Territory Government is committed to increasing the number of bus stops in Darwin, Palmerston and Alice Springs that are compliant with the standards set out in the DDA. DIPL aims to achieve maximum possible compliance by 31 December 2022. This is the target date required by the DDA.

5.2 Assessing compliance

Each upgrade proposal must consider whether compliance with the Transport Standards and Premises Standards can be achieved.

As a transport provider, DIPL will assess the context and constraints of the site or upgrade proposal to address any accessibility issues.

This section sets out the steps to determine if compliance can be achieved, and the typical processes that apply where compliance cannot be achieved.

5.2.1 DDA compliance check

If the selection criteria or an exceptional decision determines that a proposed bus stop upgrade should go ahead, then DIPL will determine how the technical requirements and standards of the bus stop design can be met.

The below is a summary of bus stop components that will be reviewed as a part of a site audit. The site audit is an internal DIPL process which will document the opportunities and constraints of a site, and identifies the technical requirements which the Transport Standards and the Premises Standards in the DDA.

Bus stop component (compliance team)	Standard & clause to meet DDA requirement
Bus stop pad	AS1428.1
Path/walkway to bus pad	AS1428.1: Cl6.3/6.5 AS1428.2: Cl8.1
Access around shelter/seating	AS1428.1: Cl13.2
Allocated waiting space for wheelchair	AS1428.2: Cl6.1 AS1428.1: Cl18.1
Tactiles (TGSIs)	AS1148.4
Signage location (i.e. totems, bus stop signage)	AS1428.4: Cl3.6
Signage height	AS1428.2: Cl17.4
Ramps (if access path is at a different level to the boarding bus stop)	AS1428.1: Cl10.3/10.6/10.7 AS1428.1: Cl10.8 (Landings)
Seating (if provided)	AS1428.2: Cl27.2

Bus stop component (compliance team)	Standard & clause to meet DDA requirement
Armrest rails (if provided)	AS1428.2: CI27.2
Lighting levels (if installed)	AS1428.2-1992: CI19.1
Handrails (if provided)	AS1428.1: CI12

5.2.2 Constraints to full DDA compliance

In certain locations or circumstances, bus infrastructure or an upgrade design will be unable to meet all of the specifications and requirements of the Transport Standards and/or Premises Standards under the DDA.

The following factors should be considered as part of determining if specifications and requirements cannot be fully achieved:

- **Consultation**
Seeking the views of disability representative groups and passengers living with a disability.
- **Community impacts**
How achieving full compliance will benefit or detriment people with disabilities and other persons, and balancing these against the benefits/detriments of not achieving full compliance.
- **Connecting infrastructure**
Whether or not there are connecting paths and verges that allow for the bus stop to be accessible. Where bus stops are located in council road corridors, DIPL has no control over coordinating civil works to connect other infrastructure to the bus stop footprint.
- **Technical and constructability constraints**
Caused by challenging topography or operational factors.
- **Funding constraints**
In the absence of Commonwealth funding to meet the disability standards, DIPL may not be able to fund some proposals if they require significant capital and maintenance costs to achieve full compliance.
- **Financial impacts**
How full compliance may impact the financial position of bus operators or DIPL through changes in service requirements.
- **Safety impacts**
Whether full compliance may cause detrimental impacts on road safety.
- **Other options**
Whether full compliance can be achieved by other means, including by providing a temporary exemption to allow planning for compliance progressively or by providing equivalent access (discussed in Section 5.2.3).

5.2.3 When DDA compliance cannot be fully achieved

In circumstances where compliance with all of the standards and requirements will not be achievable, DIPL will achieve compliance to the maximum extent possible. In this regard, DIPL will consider the following processes under the DDA:

- **Equivalent access**

- A process in which DIPL can change the method, infrastructure or facilities to provide access to its bus services, if this change can maintain an equivalent standard of amenity, availability, comfort, convenience, dignity, price and safety.
- Equivalent access does not mean alternative services, such as providing an accessible taxi service instead of an inaccessible bus service.
- Through this process, DIPL will consult with organisations representing people with disabilities and passengers with a disability who use bus services.

- **Temporary exemption**

- DIPL may consider applying to the Australian Human Rights Commission for a temporary exemption from complying with the DDA.
- This option would be considered in consultation with disability representative bodies and passengers living with a disability, with the aim of making appropriate changes to achieve compliance during the term of an exemption.

- **Unjustifiable hardship**

- This option is only available if compliance would impose unjustifiable hardship. In this case, compliance is required to the maximum extent possible and good faith attempts at achieving full compliance through the previously mentioned processes would be exhausted.



Photo 14: showing an example of when DDA compliance cannot be fully achieved.



Photo 15: showing rural Hail 'n' Ride service only.

5.2.4 DDA compliance and Hail 'n' Ride services

In circumstances where compliance with all under Section 8.4 of the Transport Standards:

1. If a Hail 'n' Ride service is offered, passengers must be able to hail the service at nominated accessible boarding bus stops where boarding devices can be deployed.
2. The boarding bus stops must offer equal access to public transport services.

DIPL recommends that the provision of accessible boarding bus stops need to consider the following factors:

- design and constructability constraints in rural road environments including the availability of paths and street infrastructure to achieve accessible access

- identified community need
- benefits and detriment to adjacent land uses
- overall passenger demand that the bus route services.

The placement of any accessible boarding bus stops will need to consider the factors that impact compliance outlined in Section 5.2.2 and the processes for equivalent access and unjustifiable hardship.

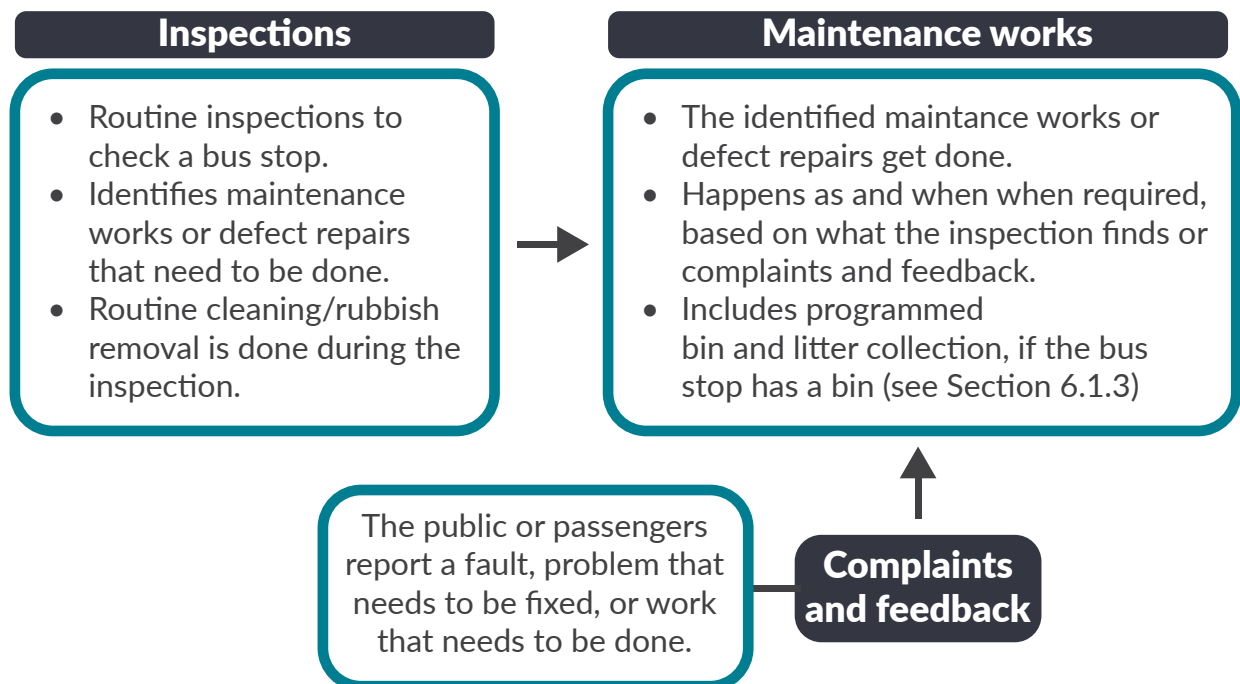
6. Maintenance

Maintenance of bus infrastructure is essential for providing safe and accessible public transport. Damaged infrastructure, litter and unclean bus stops should be addressed in a timely manner to maintain positive passenger experiences.

6.1 How maintenance is done

DIPL manages contracts for the regular inspection and maintenance of bus stops and related infrastructure.

Maintenance processes are summarised as:



6.1.1 Inspections

Inspection tasks are:

- Inspect for any damaged fixtures or safety hazards and immediately report them, along with photographic evidence, and identify costs to make good any safety hazards.
- Identify and record the type, quantity and location of any defects and provide photographic evidence of the defects. An electronic record is made.
- Defects will include cleaning and washing requirements, painting requirements, graffiti removal, signs and posts indicating timetables, electrical services malfunction, landscaping requirements, vandalism, potential health and safety hazards and anything that could be an inconvenience to passengers.
- Removing unauthorised posters/flyers and advertising signs including adhesives.
- If there is no bin at the bus stop, removing any rubbish (vegetation, paper, glass, plastic dumped furniture, leaves, sticks, stones, etc.) up to 4 metres clear of the bus stop and surrounding pavement.

Bus infrastructure type	Inspection frequency	Details
Shelter in urban area	Weekly	DIPL's contractor inspects urban shelters once a week. Inspections start every Monday morning and get done by 4pm every Wednesday. This includes public holidays.
Totems, poles, signs or bus stops with limited infrastructure	Monthly	Inspections of bus stops with limited infrastructure, including bus stops with a yellow pole (urban bus stop) or blue pole (school/ special event bus stop) are done monthly.
Shelter in rural area	3 monthly	Rural area stops are inspected every 3 months. The reason that rural area bus stops are inspected less frequency than urban area bus stops is the generally lower number of pedestrians using a rural road or street.
Bus interchanges	Daily	Interchanges are inspected daily due to their high use.

6.1.2 Maintenance works

Maintenance works, including defects repairs, are identified from routine inspections or complaints and feedback, or is programmed as part of routine maintenance. Electronic data collection and defect recording is an essential part of the maintenance process.

DIPL administers contracts to undertake the following maintenance tasks:

- cleaning of shelters, bins, pavements or other features
- urgent removal of litter and bin services above a regular service
- removing offensive graffiti, stickers or pasted material
- checking lighting levels and replacing bulbs
- removing hazardous material
- weed and pest control
- regular bin services
- removal of debris from bus stop areas due to storms
- touching up chipped or marred paint
- urgent works
- line marking
- replacement of damage infrastructure components
- other works as required.

6.1.3 Bin and Litter Collection

Some bus stops have bins installed for use by passengers. DIPL administers contracts for the regular emptying of bins, with frequency based on the number of passengers utilising the bus stop and past levels of rubbish emptied.

As part of the weekly bin clearance program the contractor will undertake the following tasks:

- Collect litter (vegetation, paper, glass, plastic dumped furniture, leaves, sticks, stones etc.) within and for 4 meters clear of the structure and paved extremity of shelters and bus stops.
- Remove unauthorised posters/flyers, and advertising signs including adhesives.
- Empty garbage bins and remove litter from within the bin housing (under inner plastic bin) replace disposable bin liners, clean and disinfect/deodorise all parts of bins, as required in accordance with the number of clearances/days of clearances as specified.

On an as and when required basis (e.g. passenger complaint, etc.) the contractor may have to undertake the following tasks:

- Attend to urgent removal of litter and bin contents as and when required over and above regular service.
- Attend to urgent removal of broken glass bottles, dead animals, offensive materials, or any other dangerous hazards.



Photo 16: showing example of a bin located at a bus stop.

7. Further information and feedback

Any queries relating to the installation or upgrade of bus stops may be directed to Passenger Transport:

Email: passenger.transport@nt.gov.au

Phone: 08 8924 7666

References

[Disability Discrimination Act 1992 \(Cth\)](#)

[Performance and Design Standards for Northern Territory Government Roads](#)

[Public Transport \(Passenger Safety\) Act 2008 \(NT\)](#)

[Australian Human Rights Commission accessible bus stops guidelines](#)

Appendix A – Selection criteria: Bus stop upgrades

Bus Stop Upgrade Selection Criteria Matrix

Upgrade request details		
Bus stop no:	Bus stop category (current):	Date:

Description of upgrade request e.g. *shelter, seating*

Selection criteria	Weighting	Score	Weighted score
A Patronage (threshold) Score 1: <1000 boardings per year Score 2: 1000 – 5000 boardings per year Score 3: >5000 boardings per year	15	1/2/3	
B Socio-economic profile of suburb/ locality around bus stop Score 1: 4 or 5 IRSD* (least disadvantaged) Score 2: 3 IRSD Score 3: 1 or 2 IRSD score (most disadvantaged)	30	1/2/3	
*Index of Relative Socio-economic Disadvantage, explained in Section 4.3.			
C Frequency of services using the bus stop Score 1: Up to one service per hour Score 2: 2-3 services per hour Score 3: More than 3 services per hour	10	1/2/3	

Selection criteria	Weighting	Score	Weighted score
<p>D Proximity to employment, community and/or commercial land uses.</p> <p>Score 1: Farther than 400 metres from the above land uses.</p> <p>Score 2: Within 400 metres of medium dwelling residential areas</p> <p>Score 3: Within 400 metres of:</p> <ul style="list-style-type: none"> • public facilities • leisure and recreation facilities • seniors villages • high volume residential areas. 	30	1/2/3	
<p>E Score 1: Used as a dedicated school bus stop only**</p> <p>Score 2: Used as a mixed service bus stop with one school route service.</p> <p>Score 3: Used as a mixed service (both urban and school use) bus stop with more than one school route service.</p>	15	1/2/3	
TOTAL RATING (SUM OF WEIGHTED SCORE)			

*Note: the weighted score for each criterion is calculated by the following formula:

Weighting x (Score of 1,2 or 3) ÷ 3 = Weighted score.

For example, the weighted score at criterion A for a bus stop with a patronage of 2000 per year is 10.

$15 \times (2) \div 3 = 10.$

Should the upgrade happen?

No Total rating below 50

Yes Total rating above 50

** Bus stops used by school bus routes indicate that a significant portion of passengers using the bus stop will be students. Such bus stops will receive less priority for upgrade as their use by students is limited as follows:

- on inbound school routes, students wait at the bus stop for a limited time in the morning, once per day
- on outbound school routes, students will immediately leave the bus stop area rather than use its infrastructure.

Comments:

Appendix B – Worked examples of applying the selection criteria

This section provides the following worked examples where the selection criteria at Appendix A is applied:

Basic bus stop - Bus stop no 68 - 213 Trower Road, Alawa

Assessed for upgrade to shelter.

Minimum boarding stop - Bus stop no 321 - 1 Bremer Street, Parap

Assessment finds that a proposed upgrade to a shelter should not happen.

School bus stop - Bus stop no 315 - 5 Gothenburg Crescent, Stuart Park

Assessment finds that a proposed upgrade to a shelter should not happen.

Upgrade request details				
Bus stop no: 68	Bus stop category (current): Basic bus stop	Date:		
Description of upgrade request <i>e.g. shelter, seating</i>				
Bus stop located at 213 Trower Road, Alawa				
Bus stop identified for potential upgrade via a bus stop audit within DIPL under its Bus Stop Type Upgrade Program. Proposed upgrade from a basic bus stop with a totem and seat to a shelter. Shelter type to be determined pending assessment of site and public consultation.				
Selection criteria	Weighting	Score	Weighted score	
A	Patronage (threshold)	15	3	15
	Score 1: <1000 boardings per year			
	Score 2: 1000 – 5000 boardings per year			
	Score 3: >5000 boardings per year			
B	Socio-economic profile of suburb/ locality around bus stop	30	2	20
	Score 1: 4 or 5 IRSD* (least disadvantaged)			Located adjacent to IRSD 3
	Score 2: 3 IRSD			
	Score 3: 1 or 2 IRSD score (most disadvantaged)			
*Index of Relative Socio-economic Disadvantage, explained in Section 4.3.				

Selection criteria	Weighting	Score	Weighted score
C Frequency of services using the bus stop Score 1: Up to one service per hour Score 2: 2-3 services per hour Score 3: More than 3 services per hour	10	3	10
D Proximity to employment, community and/or commercial land uses. Score 1: Farther than 400 metres from the above land uses. Score 2: Within 400 metres of medium dwelling residential areas Score 3: Within 400 metres of: <ul style="list-style-type: none"> • public facilities • leisure and recreation facilities • seniors villages • high volume residential areas. 	30	3	30
E Score 1: Used as a dedicated school bus stop only** Score 2: Used as a mixed service bus stop with one school route service. Score 3: Used as a mixed service (both urban and school use) bus stop with more than one school route service.	15	2	10
TOTAL RATING (SUM OF WEIGHTED SCORE)			85

*Note: the weighted score for each criterion is calculated by the following formula:

Weighting x (Score of 1,2 or 3) ÷ 3 = Weighted score.

For example, the weighted score at criterion A for a bus stop with a patronage of 2000 per year is 10.

$15 \times (2) \div 3 = 10.$

Should the upgrade happen?

Yes Total rating above 50

*** Bus stops used by school bus routes indicate that a significant portion of passengers using the bus stop will be students. Such bus stops will receive less priority for upgrade as their use by students is limited as follows:*

- *on inbound school routes, students wait at the bus stop for a limited time in the morning, once per day*
- *on outbound school routes, students will immediately leave the bus stop area rather than use its infrastructure.*

Comments:

Recommended for upgrade to shelter.

Bus stop utilised by 9 bus services school and public.

Within 400 metres of public facilities/Casuarina Shopping Centre/high volume residential areas.

Total rating is above 50 when selection criteria applied.

Upgrade request details

Bus stop no: 321

Bus stop category (current):
Minimum boarding stop - yellow pole

Date:

Description of upgrade request *e.g. shelter, seating*

Bus stop located at 1 Bremer Street, Parap

Request received via public feedback for the dedicated school bus stop to be upgraded to a shelter. Current bus stop: Minimum boarding stop – dedicated school bus stop – yellow pole – no seating – no shelter. Shelter type to be determined pending assessment of site and public consultation.

Selection criteria	Weighting	Score	Weighted score
A Patronage (threshold) Score 1: <1000 boardings per year Score 2: 1000 – 5000 boardings per year Score 3: >5000 boardings per year	15	1	5
B Socio-economic profile of suburb/ locality around bus stop Score 1: 4 or 5 IRSD* (least disadvantaged) Score 2: 3 IRSD Score 3: 1 or 2 IRSD score (most disadvantaged) *Index of Relative Socio-economic Disadvantage, explained in Section 4.3.	30	1	10 Located adjacent to IRSD 5
C Frequency of services using the bus stop Score 1: Up to one service per hour Score 2: 2-3 services per hour Score 3: More than 3 services per hour	10	1	3.33

Selection criteria	Weighting	Score	Weighted score
<p>D Proximity to employment, community and/or commercial land uses.</p> <p>Score 1: Farther than 400 metres from the above land uses.</p> <p>Score 2: Within 400 metres of medium dwelling residential areas</p> <p>Score 3: Within 400 metres of:</p> <ul style="list-style-type: none"> • public facilities • leisure and recreation facilities • seniors villages • high volume residential areas. 	30	1	10
<p>E Score 1: Used as a dedicated school bus stop only**</p> <p>Score 2: Used as a mixed service bus stop with one school route service.</p> <p>Score 3: Used as a mixed service (both urban and school use) bus stop with more than one school route service.</p>	15	1	5
TOTAL RATING (SUM OF WEIGHTED SCORE)			33.33

*Note: the weighted score for each criterion is calculated by the following formula:

Weighting x (Score of 1,2 or 3) ÷ 3 = Weighted score.

For example, the weighted score at criterion A for a bus stop with a patronage of 2000 per year is 10.

$15 \times (2) \div 3 = 10.$

Should the upgrade happen?

No Total rating below 50

** Bus stops used by school bus routes indicate that a significant portion of passengers using the bus stop will be students. Such stops will receive less priority for upgrade as their use by students is limited as follows:

- on inbound school routes, students wait at the bus stop for a limited time in the morning, once per day
- on outbound school routes, students will immediately leave the bus stop area rather than use its infrastructure.

Comments:

Not recommended for upgrade. Bus stop is a dedicated school bus stop that is utilised by one school bus service twice a day. Total rating is below 50 when selection criteria applied.

Upgrade request details

Bus stop no: 315

Bus stop category (current):
Minimum boarding stop - yellow pole

Date:

Description of upgrade request *e.g. shelter, seating*

Bus stop located at 5 Gothenburg Crescent, Stuart Park

Current bus stop: Minimum boarding stop – yellow pole. No seating or shelter.
Request received via public feedback for the minimum boarding stop to be upgraded to a shelter.
The proposal for upgrade will now be assessed under the below selection criteria to find out if the proposal should go ahead. Shelter type to be determined pending assessment of site and public consultation.

Selection criteria	Weighting	Score	Weighted score
A Patronage (threshold) Score 1: <1000 boardings per year Score 2: 1000 – 5000 boardings per year Score 3: >5000 boardings per year	15	1	5
B Socio-economic profile of suburb/ locality around bus stop Score 1: 4 or 5 IRSD* (least disadvantaged) Score 2: 3 IRSD Score 3: 1 or 2 IRSD score (most disadvantaged) *Index of Relative Socio-economic Disadvantage, explained in Section 4.3.	30	1	10 Located adjacent to IRSD 4
C Frequency of services using the bus stop Score 1: Up to one service per hour Score 2: 2-3 services per hour Score 3: More than 3 services per hour	10	1	3.33

Selection criteria	Weighting	Score	Weighted score
<p>D Proximity to employment, community and/or commercial land uses.</p> <p>Score 1: Farther than 400 metres from the above land uses.</p> <p>Score 2: Within 400 metres of medium dwelling residential areas</p> <p>Score 3: Within 400 metres of:</p> <ul style="list-style-type: none"> • public facilities • leisure and recreation facilities • seniors villages • high volume residential areas. 	30	1	10
<p>E Score 1: Used as a dedicated school bus stop only**</p> <p>Score 2: Used as a mixed service bus stop with one school route service.</p> <p>Score 3: Used as a mixed service (both urban and school use) bus stop with more than one school route service.</p>	15	2	10
TOTAL RATING (SUM OF WEIGHTED SCORE)			38.33

*Note: the weighted score for each criterion is calculated by the following formula:
 Weighting x (Score of 1,2 or 3) ÷ 3 = Weighted score.
 For example, the weighted score at criterion A for a bus stop with a patronage of 2000 per year is 10.
 $15 \times (2) \div 3 = 10.$

Should the upgrade happen?

No Total rating below 50

** Bus stops used by school bus routes indicate that a significant portion of passengers using the bus stop will be students. Such bus stops will receive less priority for upgrade as their use by students is limited as follows:

- on inbound school routes, students wait at the bus stop for a limited time in the morning, once per day
- on outbound school routes, students will immediately leave the bus stop area rather than use its infrastructure.

Comments:

Not recommended for upgrade.
 Bus stop utilised by 2 bus services including one school bus service.
 Total rating is below 50 when selection criteria applied.



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