CAR PARKING
The importance of car parks

Car parks enable people to conveniently access parks, however they can significantly detract from the green, open visual character of parks and create barriers to pedestrian access. A park which is well connected with its surrounding neighbourhood will increase the proportion of trips made by walking, cycling and public transport, while reducing the proportion of trips made by cars, and this should be considered when deciding the size of the car park required.

Car parks need to be robust, safe and provide sufficient levels of parking to accommodate users, with minimum visual impacts and ecological disturbance. The integration of vegetation and storm water functions in and around the edges of car parks will add biological function and mitigate the adverse effects of the development.

Designing a car park:

Decide on the size of car park by:
- analysing the provision of car parking and public transport options in the surrounding neighbourhood to determine whether or not on-site parking is required
- balancing land use efficiency with efficiency of access and use of parking
- designing for average expected levels of car park use, not to meet demand from adjacent facilities for additional car parks. Don’t design for peak demand capacity
- managing the size required through parking to discourage car-use

Ensure car parks respond to the surrounding context by:
- working with the existing landform, to ensure that earthworks are kept to minimum
- ensure the scale of car park is relative to its anticipated level of use and is in context with surrounding buildings and structures
- reducing visual impact by not locating car parks on prominent ridgelines or within important view shafts
- protecting existing site features such as gullies, heritage features, existing trees and vegetation. Incorporate access roads and car parking sensitively around these features
- using materials and forms that reflect local materials and colours
- ensuring car park surfaces are sealed in all urban parks
- considering the potential effect on neighbours of any noise, lighting or loss of visual amenity
- ensuring the park is well connected with its surrounding neighbourhood in order to reduce the total parking demand
- using road verges
- avoiding large platforms. Integrate a ribbon of smaller nodes with fewer parking bays, rather than single large lots

Ensure good location and siting by:
- locating car parks close to important recreational areas and buildings
- locating car parks next to uses that provide natural surveillance into or over the site, e.g. on road frontages
- enabling windows and entrances of nearby buildings to overlook the car park to maximize surveillance where possible

Achieve safe and secure car parks by:
- ensuring clear sightlines and appropriate lighting in all car parks. Where possible car parks should be situated in areas where neighbouring activities provide surveillance considering user safety in the car park design. Pedestrian routes from parking areas to the park need to be designed to minimize conflict with vehicles. The personal safety of car park users should be addressed by applying the safety principles of CPTED
- ensuring the appropriate configuration of parking bays, to allow good lines of sight between vehicles and through the car park
- ensure any islands of landscaping, large trees or banks within car parks do not create visual obstructions. Lower tree limbs should be above average head height, and shrubs should not provide easy concealment or entrapment spots. A yardstick height of 900mm (maximum) is often applied to shrubs in at-risk areas
- being aware that dense vegetation located beside or within car parks can provide concealment and entrapment opportunities. Species should be selected on the basis of their height, shape, and bulk
- using lighting to enhance natural surveillance, including:
  - providing lighting that illuminates, parking bays, circulation routes and signage
  - lighting all concealment or entrapment areas which cannot be eliminated
  - clearly identifying vehicles, exits, entrances and other approaching people
  - providing visual guidance to pedestrians returning to their vehicles. This is an important factor for large car parks

Achieve good car park layout by:
- ensuring the design includes the physical layout of the car park as well as the regulatory controls, signs and markings that will be needed to manage the parking
- ensuring internal circulation and facilities are based on an access hierarchy, with pedestrians and cyclists taking priority over private vehicles. Pedestrian crossings, paths and signage should clearly enforce pedestrian rights of way
- providing for safe pedestrian movement between the car park and the facilities it is serving
- providing for easy circulation of vehicles within the car park, and for on-site turn-around where necessary to avoid vehicles reversing back onto public roads.
- using vegetation and natural contour instead of structural barriers for traffic calming measures where possible
- designing for single-lane circulation (one way in, one way out) within car parks to minimize the width of surface area across the car park. Vehicles should be encouraged to circulate in a logical and continuous manner
- including lockable vehicle gates
- installing wheel stops or landscaping to prevent inappropriate movement of vehicles through the car park
- separating pedestrian and vehicle traffic at the entry and exit points as well as throughout the car park, and providing pedestrian crossings where walkways and vehicle routes cross each other
- employing logical design, landscaping and surface treatments to channel traffic and keep vehicle speeds down
- locating signs providing directional information prior to junctions that require people to make decisions
- including landscaping in appropriate places to enhance the visual appearance of the site
- regularly trimming and maintaining any landscaping to ensure sightlines are not impeded and car parking areas maintain a high level of amenity
- encouraging the use of low impact design for stormwater runoff e.g. rain gardens, swales, permeable asphalt or concrete etc.
- making the space adaptable for multiple uses
Make car parks accessible by:

- providing entry and exit to the car park via one or more vehicle crossings
- providing mobility parking spaces and suitable barrier free access routes between mobility parking and the park
- providing universal access to key park facilities where practicable. This includes providing routes for pedestrians and mobility devices which have minimum or no obstructions
- adhering to these key features of accessible car parks:
  - slopes not be steeper than 1:50 in any direction
  - asphalt or concrete surfaces. Other surfaces that have similar slip resistance could be acceptable, but only if they are stable and firm enough to support a wheelchair under all weather conditions
  - an accessible route from the park to any building entrance. This means a route that is free of kerbs and other obstructions and can be easily and safely traversed by a wheelchair user without assistance. Similar accessible routes should be installed to key park facilities where possible
  - paving that is flush with the park, making access easy
  - no abrupt changes of gradient other than kerb ramps where needed. There should be no need to pass behind parked cars to reach an accessible park
  - the International Symbol of Access on the surface of accessible parking spaces, as well as other signs indicating the direction to the park along the route from the street from the park itself

Special parking
While most public parking demands are for light vehicles and can be met by standard sized parking spaces, certain locations such as tourist attractions and camping grounds are likely to generate a demand for larger vehicles. Accommodate larger vehicles by:

- providing dedicated facilities for these vehicles, to avoid them parking inefficiently across a number of standard sized spaces
- choosing the number and size of special parking spaces in accordance with the likely demand created by the attraction

Technical standards
- Land Transport New Zealand - Part 13 Parking Control
- NZS 4121: 2001 Design for Access and Mobility Buildings and Associated Facilities
- The Australian and New Zealand Standard AS/NZS 2890.1:2004
- Mobility car parking and access requirements prescribed by the New Zealand Building Codes D1 and NZS 41121.
- ATCOP – Chapter 9 - Parking

Other resources
- Auckland Regional Council – Piha Area Design Guidelines – Road and Car Park Design Guidelines
- Safer Auckland City – Carpark and Safer Parking

Good practice examples
Orakei Train Station Car Park, Orakei

Long Bay Regional Park

Owairaka Park, Mt. Albert
The entrance includes clear signage, an entry gate and a dedicated entry point for pedestrians and cyclists.

Auckland Council Waitakere Offices, Henderson
Planted swales are used to pre-treat storm water and soften the overall appearance of the car park.
Wainoni Reserve, Greenhithe

Shelter belts and specimen trees can be used to visually contain car park edges.