The dual function of streets as places for people and movement and how the prioritisation of transport movements, walking, cycling and social opportunity influences the function of streets and determines their character and identity. Streets are a key element of the public realm. People-friendly and safer streets with direct connections to cities and centres will promote walking, cycling and public transport use. Design excellence for great places therefore starts with a public realm and open spaces that are safe and accessible.

Greater Sydney Commission, Greater Sydney Region Plan 2018
Good design of streets is crucial to our liveability within our cities, towns, neighbourhoods and villages. They have a multi-faceted role of allowing people the ability to move between places safely, to carry out business activity, socialise and linger. These activities should be able to be carried out in an environment which is functional, efficient, sustainable and overall pleasant.

Understanding Streets

Place-based approach to streets

Different levels of activity (or intensity) result in different types of streets with different mixes and amounts of movement, buildings and spaces. Each mix requires a different design response.

Integrated street design requires the consideration of all the various infrastructure systems together – green (such as trees and parks), blue (such as creeks and rain gardens) and grey (pavements, utilities and roads), along with buildings and the spaces in-between. A great place-based approach to reveal, repair and re-imagine better streets is to invert the typical hierarchy by considering:
1. The street’s character and history
2. The blue infrastructure that shapes the land in which the street sits
3. The green infrastructure that supports and enhances the blue infrastructure
4. The key users of the street
5. The types of movement that support or would enhance the street
6. The current layout of the footpath and roadway within the right of way.

A vision for repair can be particularly powerful. Logistically difficult challenges like restoring street trees or providing more room on the pavement for businesses require focus, and are rarely able to be delivered as an afterthought.

Character starts with Country – where the street is located, the history of the street or way (which may span back thousands of years), the layers of buildings and spaces (including the design intent that set their width and character), their predominant use (as a high street or boulevard) and present form.

Consider other users

To benefit all users of the street, consider:
— Safety, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
— Movement, starting from the perspective of walking and cycling within the place
— The needs of vehicles from the perspective of loading, servicing and necessary trips.

Streets are the interface between the public and private domain. Good street design supports and enhances private development. Research undertaken by the Commission of the Built Environment indicates the value of good street design to better human and economic health outcomes.

Elements which make a well-designed street

— Footpaths wide enough to accommodate all users
— Setbacks appropriate to the street character
— High quality landscape design appropriate to the place
— No pinch points
— Obstructions and clutter located out of the way
— Enough crossing points located in the right places
— Traffic levels and speeds which are not excessive
— Public spaces along the street
— Tactile paving and colour contrast at crossings
— Smooth, clean, well-drained surfaces
— Good materials chosen for their quality and longevity
— High standard of maintenance
— Clear and positive interface with private domain
— Good lighting
— Sense of security
— No graffiti or litter
— Good wayfinding - signs, sight lines and landmarks
— Layout and activity, rather than ‘anti-social’ furniture, to discourage anti-social behaviour.

What are the challenges for streets in NSW?

The issues that impact the quality of our streets and the pedestrian experience of using them are:

Population growth
— Growth of people living and doing business requires more efficient use of space – efficient modes like public transport, bicycles and footpaths are not only sustainable and equitable, but typically better and cheaper than road widening at improving throughput. Vehicle growth also impacts health outcomes (air and noise pollution) and compromises safety and amenity for those on foot and pedal.

Rising obesity
— Obesity affects 52.6% of NSW adults and 22% of children. Health NSW studies in 2008 estimated that this costed $19 billion, in both lost productivity ($2.7bn) and lost wellbeing ($16.3bn). Increasing walkability of places, access to parks, neighbourhood facilities and services on foot and by bike are all key to tackling this issue, as well as general physical and mental health.

Equity and deprivation
— Quality and density of economic and education opportunities varies geographically. Non-drivers, particularly the young and old, are excluded from many opportunities where alternative transport is not in easy reach.
— Our major roads often follow natural ridges and valleys, the most direct and accessible routes, transport is not in easy reach.

Transition and technology
— Technology can be harnessed to improve places, such as smart signalling, to give more time to pedestrians and cyclists, or electric charging points to facilitate low-emission vehicles. Connected and driverless vehicles will also change how our streets function, and can be harnessed for smarter management of strategic traffic, and discouraging short car trips.
— Innovation in freight and logistics can reduce the impact of out-of-hours deliveries and the size of vehicles, as well as ‘low tech’ innovation such as consolidation centres and cargo bikes.

How do we overcome challenges?

Understand the street and its function
— Use learnings gained from a place-based approach to set a vision for the street, specific objectives, or even a plan for change. This is the first step in taking a Movement and Place approach to streets.

Gap Analysis
— Delve into detailed analysis of the urban design and transport task of the street, and the issues and opportunities that arise from each. This analysis is crucial to expanding a vision, and for filling gaps in understanding. However, if done too early, this can lead to focus on immediate improvement at the expense of long-term goals.

Develop options
— Explore options with a variety of stakeholders and validate those options to refine and improve (or ‘test to failure’) each proposition that meets the vision within existing constraints.

Grow trees, not cars
— The health of a street - the trees, people and businesses that inhabit it – needs to be co-equal with the impact of its moving parts. Ensuring streets are successful means limiting traffic growth and addressing impacts caused by traffic volume, speed, noise and emissions. Plans to do nothing about these issues, or for traffic growth are plans for those streets to fail.

Move and Place
— Movement and Place sets up an expectation of outcomes for street environments:
— stopping the decline of all places
— prioritising place in higher intensity areas
— improving walking to, from and within places, and within 10 minutes of public space
— improving air quality and noise where people live and congregate such as local and high streets
— limiting the use of grade separation
— managing speed and time-of-day priority where movement and place activity occur together
— introducing buffers to higher speeds and HGVs
— sufficient, efficient and innovative loading
— dedicating space for cycling on key routes and improving shared cycling on quieter streets
— increasing the tree canopy in Greater Sydney, and maintaining trees in regional areas.

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