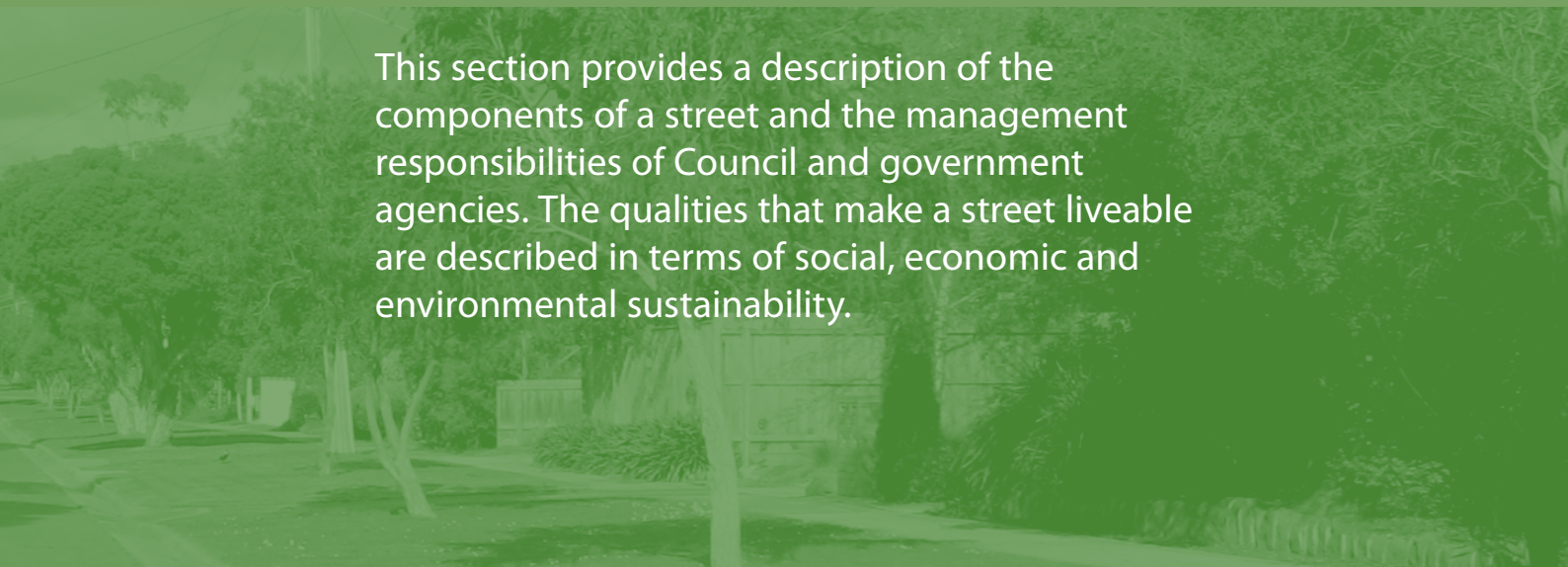




3

KNOX & LIVEABLE STREETS

This section provides a description of the components of a street and the management responsibilities of Council and government agencies. The qualities that make a street liveable are described in terms of social, economic and environmental sustainability.



3.1 THE ANATOMY OF A STREET

Streets are complex environments that serve many functions, below and above the ground. *Figure 3* illustrates the many physical parts that make up a street.

Streets are places where people travel on foot, by bicycle, bus and car. Residential streets are part of local neighbourhoods. Streets are places for plants and animals to live, for water to recharge the ground, for people to collect the mail, walk their pets, play cricket, football and handball, have a coffee with the neighbour, and paint the fence.

Streets serve businesses, providing travel routes for suppliers and customers, spaces for exchange, and are usually the public face of business.

Streets contain important public infrastructure services including power, telecommunication, water, sewage, stormwater and gas.

In summary, streets do many things for many people, meeting multiple obligations and operating under legal and resource constraints. They also are expected to be beautiful and respond to the local context, connect with other streets and form a wider network.

STREET

In this document, 'street' is used to mean all types of streets and roads. It includes all streets from highways and arterial roads through to residential cul-de-sacs.

A street typology for Knox has been developed based on the classification of roads in the *Knox Road Asset Management Plan* (KCC, 2007) and is illustrated in *Figure 10, page 64* Proposed Street Hierarchy.

Different types of streets serve different functions. This *Plan* distinguishes between the different types of streets to guide policy and action.

3.2 MANAGEMENT OF STREETS

STREET RESERVE OR EASEMENT

The '*street reserve*' is the land set aside by Council or VicRoads for a roadway, footpaths, infrastructure and landscaping. The street reserve generally is the whole area between the property lines.

CARRIAGEWAY OR STREET PAVEMENT

The '*carriageway*' is the area of the *street reserve* defined as being for the movement and parking of vehicles, typically kerb to kerb.

LANES

'*Lanes*' are the areas of the carriageway defined for vehicle travel. Lanes may be specifically defined for bicycle travel.

NATURE STRIP

The '*nature strip*' is the grassed or planted area of the *street reserve* between the edge of the carriageway and the front property line. Typically this is the area where street trees are planted, and may have a grass, gravel or hard surface. Services such as power, stormwater, sewerage, gas and water supply, and telecommunications are usually on or under the nature strip or the footpath.

FOOTPATH

The '*footpath*' is primarily a pedestrian path along the street, connecting adjacent properties.

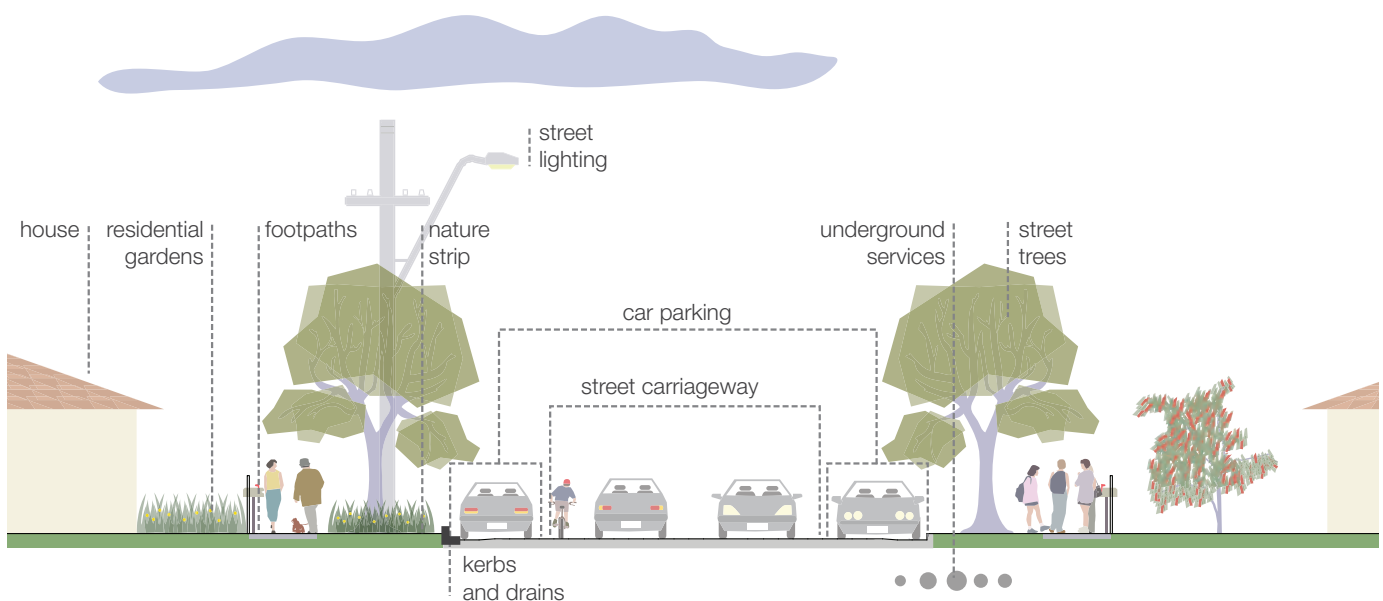


Figure 3: Anatomy of a street

3.2 MANAGEMENT OF STREETS

Streets provide space for many different services for our community. *Figure 4* illustrates how a street is managed and the many different service providers – Council, government and private – that are involved. Each service provider operates within its own legal, policy and budgetary constraints.

VicRoads is the responsible manager for all of the major roads in Knox including highways (e.g. Burwood Highway) and declared main roads (e.g. Stud Road). The EastLink freeway is managed by a private company. All other categories of roads are managed by the City of Knox.

Refer to Section 5.1 for the proposed street type hierarchy, which shows a table of Knox's streets linking the proposed typology to the *Road Asset Management Hierarchy (2007)* and the *Knox Urban Design Framework 2020 (2003)*.

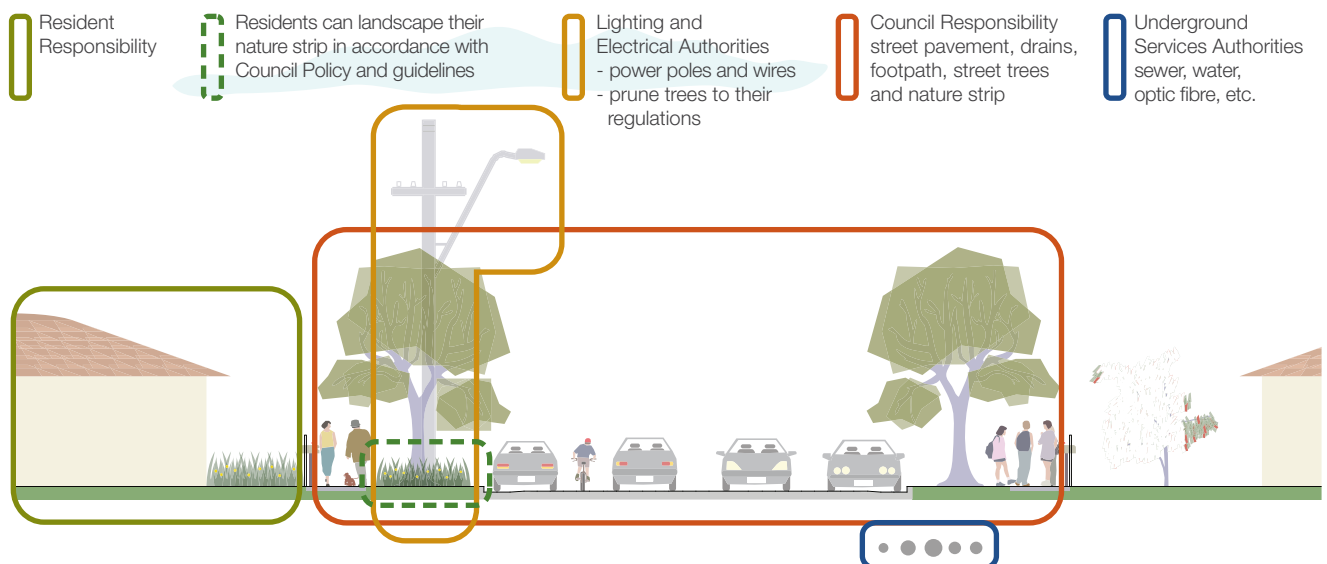


Figure 4: The many functions of a street and responsible authorities

3.3 QUALITIES THAT MAKE A STREET LIVEABLE

The qualities that make a street liveable are briefly described below in terms of social, economic and environmental sustainability – the triple bottom line approach – to measuring organisational and societal success.

These three dimensions of sustainability are important underpinning values for the City of Knox, as expressed in *Knox Vision 2025* (KCC, 2007) and in the *Knox 2008-2014 Sustainable Environment Strategy* (Context, 2008).

These ideas are taken up in more detail in Section 4 in relation to the seven liveable street themes.

SOCIAL SUSTAINABILITY

Social sustainability is about community health, social interaction, local identity and sense of place. There are many ways in which streets contribute to social sustainability.

Health

Streets provide low cost easy opportunities for exercise, such as walking and cycling.

Interaction

Streets provide places for daily and casual interaction with neighbours, community and work colleagues.

Streets provide places for residents and communities to meet and gather, both formally and informally.

Streets that are designed to reduce traffic speeds will enhance safety and encourage people to use streets as places to interact with others.

Sense of place

Streets that connect with local destinations and have legibility created by quality street tree and vegetation planting are useable and high-amenity places.

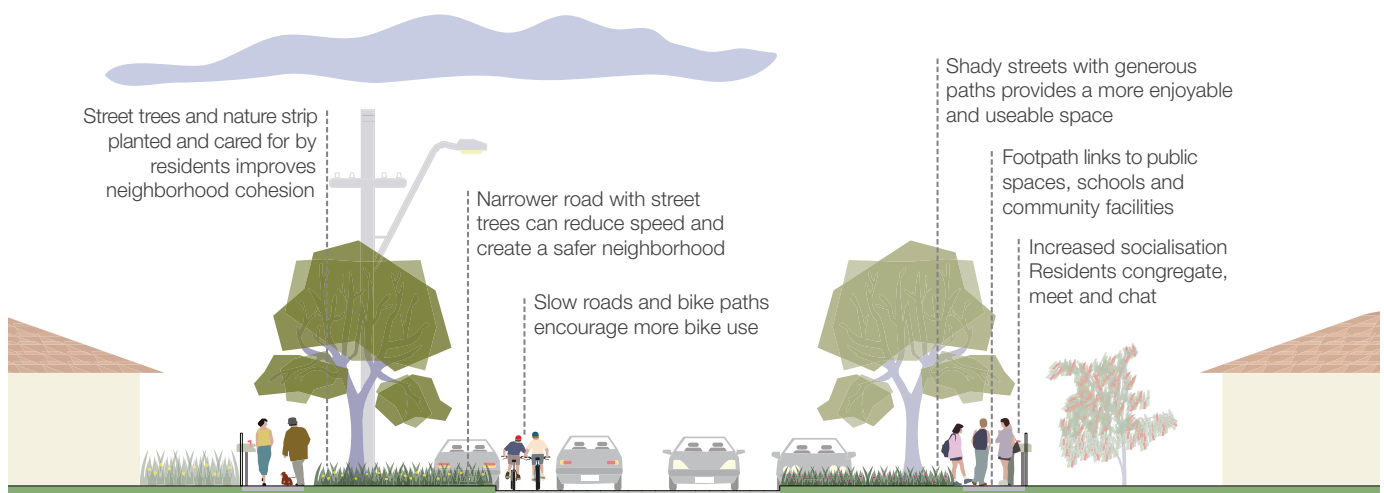


Figure 5: How streets contribute to the community

3.3 DRAFT QUALITIES THAT MAKE A STREET LIVEABLE

ENVIRONMENTAL SUSTAINABILITY

Environmental sustainability is about protecting and enhancing the ecological systems that are vital for life, and living in a way that does not compromise the future.

In relation to streets, environmental sustainability is about street environments that create habitat, support biodiversity, improve the quality of stormwater, and reduce the effects of climate change.

Local climate

Street trees create shade for walkers, houses and street pavements, thereby reducing the overall temperature of a suburb.

In turn, this reduces the energy needed to cool our homes and reduce 'the heat island' created by urban environments.

Street trees can also contribute to reducing wind speeds and the impact of storms.

Habitat

Street trees and plants can contribute significantly to habitat values. The expansion of suburbs into natural areas reduces the space for indigenous flora and fauna, and street plantings can work to enhance local habitat and assist sustainability.

Biodiversity

Biodiversity is a measure of the diversity of living organisms within an ecosystem. The more diverse the area, generally the healthier the ecosystem is as it is capable of supporting a multitude of plants, animals and insects and other life forms. Street vegetation, if varied and well chosen, can ensure that biodiversity is retained and increased in Knox.

Water

Trees, vegetation and water sensitive urban design can reduce the need for expensive water management infrastructure downstream and can improve the water quality in our waterways. By using drought tolerant species and passive irrigation through water sensitive urban design, Knox can retain its 'green and leafy' environment for the next generation.

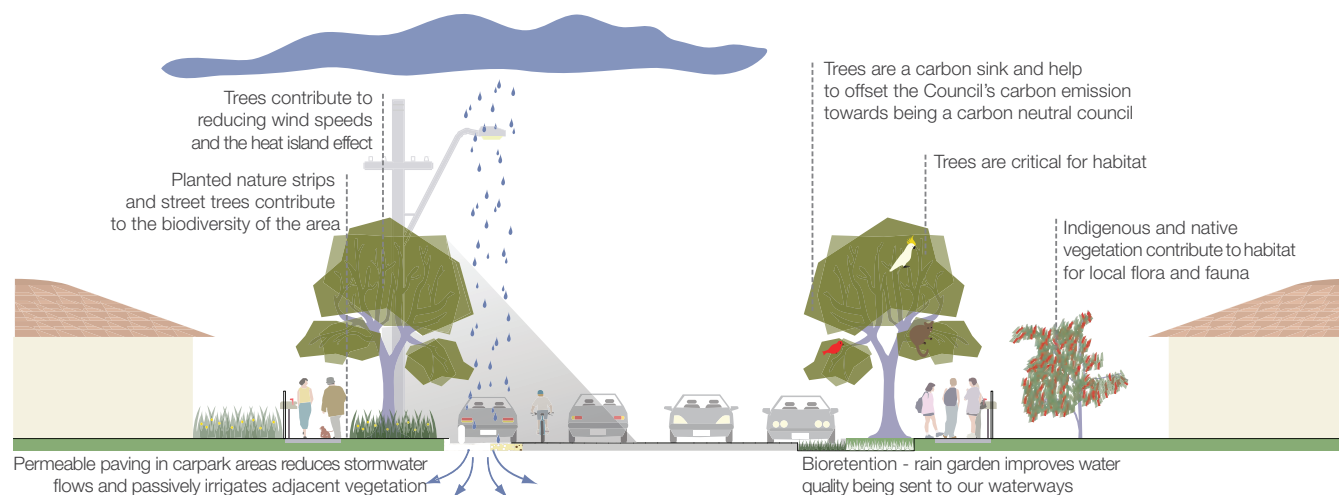


Figure 6: How streets contribute to the environment

ECONOMIC SUSTAINABILITY

Well designed streets can contribute significantly to the attractiveness of commercial and industrial areas for businesses, their customers and employees.

Well designed streets also encourage people to increase their walking and cycling, thereby increasing their health and wellbeing and decreasing the costs of health care across the community.

The *Knox Pedestrian Plan* (David Lock Associates, 2005) establishes a framework of policies and actions to encourage walking.

Amenity and commerce

Shoppers are attracted to shopping areas that are easy to access by foot, bicycle or car, and that offer a high level of amenity. Trees, vegetation, seats, quality pavements and good lighting ensure shoppers are comfortable, and are encouraged to stay longer and return.

Industrial and business estates set within quality streetscapes will help attract higher quality businesses to Knox by creating a better public profile for these businesses and a higher standard of amenity for their employees.

Property values

Property values are influenced by many factors. A significant contributor to the value of a home is the quality of the neighbourhood and street. Good street trees have been shown to increase property values by creating a more unified street character and enhancing the 'green and leafy' image desired by so many Melbournians.

'Walking is a suitable physical activity for most people. Regular walking can help you lose body fat, maintain a healthy weight, improve your fitness and reduce your risk of developing conditions such as heart disease, type 2 diabetes, osteoporosis and some cancers.' (SGV, 2010)

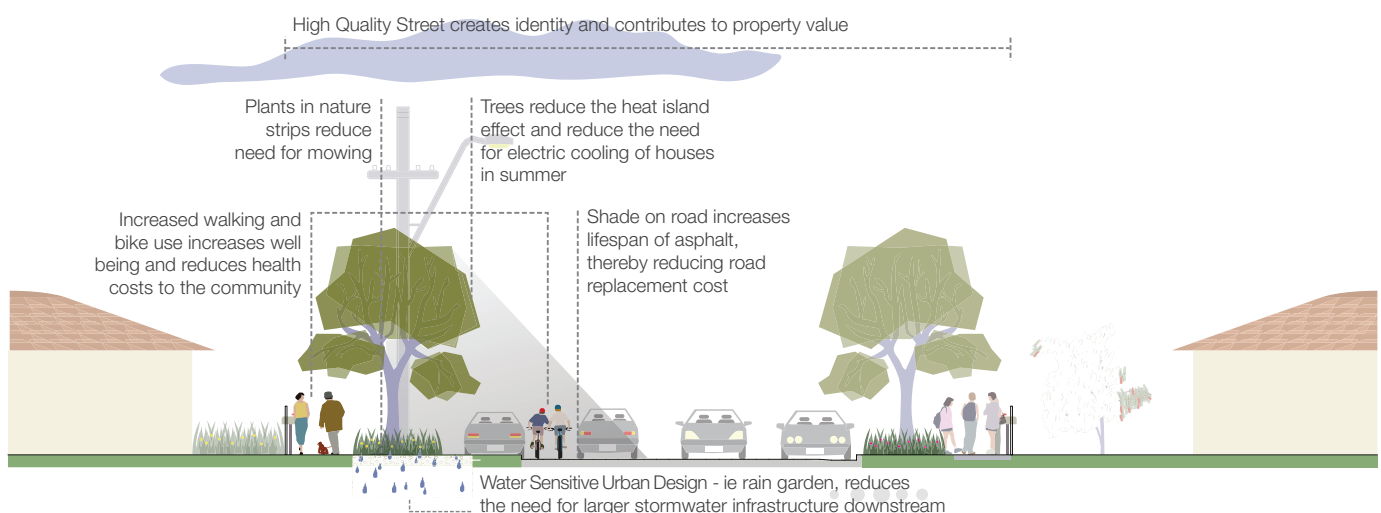


Figure 7: How streets contribute to the economy

3.4 WHAT ARE KNOX'S STREETS LIKE TODAY

THE SIGNIFICANCE OF STREETS IN KNOX

The *Knox City Council Streetscape Policy* (KCC, 2003) says that 'Knox's streetscapes and the trees within the streetscape are regarded as one of Council's greatest assets and contribute to the green leafy image of Knox. This image has been highlighted in a number of Council's strategic documents including the *Corporate Plan* and the *Municipal Strategic Statement* (2009).'

This value statement has been reiterated by community contributions during the consultation undertaken in developing this *Plan*.

SOME KEY FACTS ABOUT STREETS IN KNOX

- About 7% of the area covered by the City of Knox is a street or road – a total of 800 kilometres in length. By comparison approximately 2.9% of Knox is public parkland, as described in the *Open Space Plan* (Robin Crocker & Ass. *et.al*, 2004) this indicates the importance of the street network as part of Knox's public space network;
- The *Open Space Plan* (Robin Crocker & Ass. *et.al*, 2004) identifies linear roads and tree reserves as types of open space. Rowville, Lysterfield, Wantirna and Wantirna South have large proportions of tree or road reserves with greater than 17 sites each. The remaining suburbs of Knox have less than 8 sites each;
- The *Road Asset Management Plan* (KCC, 2007) states that roads and related infrastructure account for approximately 33% or \$1.1bn worth of public assets owned and managed by Knox City Council;
- The street network is nearly 800kms long, slightly less than the distance between Melbourne and Sydney;
- VicRoads is responsible for 95km of major roads including highways, arterials and main roads;
- The City of Knox manages the vast majority of the street network; it is responsible for around 700km of streets that provide access to residential areas, local business, community services and amenities;
- There are over 65,500 street trees within Knox with an estimated value of \$70 million using the Burnley valuation system (KCC, 2003); and,
- Knox streets make a major contribution to the identity and character of the municipality.



View of Knox over the Dandenong Creek corridor towards the foothills of Mt. Dandenong



Talaskia Road in Upper Ferntree Gully, a Council managed street

3.5 COMMUNITY PERSPECTIVES ON LIVEABLE STREETS

Community consultation during the development of the *Plan* revealed a strong interest in the appearance and function of streets across the city.

MOST LIKED STREET QUALITIES

People highly value quiet, green streets where it is easy to get to local facilities. They also value being close to shops, having good neighbours and being close to open space.

Most people like the street they live in now, but many also had ideas about how to improve it.

People don't like speeding cars and large volumes of traffic in residential streets. The amount and speed of traffic is a major issue within the community and seems to be one of the main contributing factors to the degree of happiness people feel regarding their own street.

STREET DESIGN

Responding to a series of images of streets (see 'great street' images below and over) – including commercial areas and residential streets – there was considerable comment about street trees and other greenery. A commercial area without any trees was seen as cold and sterile.

The most popular image was a well-maintained residential street that had street trees, shrubs, and wider nature strips. Wider streets without cars parked in the street were favoured. Footpaths were seen as important. A sense of spaciousness and care in the design of the street was also favoured. Meandering street layouts were also well-liked.

The strongest concern was safety, in particular street plantings that block views of children, bicycles and motor bikes, as well as the lack of footpaths in some examples.



'great street a'



'great street b'

'There are good examples of bicycle lane marking within the City of Yarra, which have not only made bicycle commuting safer, but also increased awareness and volumes of cycling. The City of Yarra has the highest level of cycling of any municipality in Victoria' (City of Yarra, 2010).



'great street c'



'great street d'



'great street e'



'great street f'



'great street g'



'great street h'

3.6 COMMUNITY PERSPECTIVES ON LIVEABLE STREETS

STREET TREES

Street trees attracted a lot of comment, both positive and negative. The type, size and number of street trees were commented on: mature eucalypts were either loved or hated and there were distinct differences of opinion over whether street trees should be native or exotic species.

Mature street trees were strongly valued because they helped create a distinctive neighbourhood character and a pride of place. Similarly all new street plantings were seen as adding character and contributing to the overall quality of the street as well as adding habitat and biodiversity values.

Mature street trees were also valued for their shade and habitat. They were seen as adding to the amenity and to the value of a neighbourhood. Few people said they did not value mature street trees.

While street trees are valued, they are also often seen to cause problems: specific issues include damage to pavements, concerns about the height of trees and obstruction to visibility along a street.

BEING INVOLVED IN THEIR LOCAL STREET

The majority of people know and like their neighbours. Some people meet socially with their neighbours but an equal amount of people did not.

Although most people know their neighbours, only a quarter of them get involved in activities in their street. Of those who get involved, the most popular activities are football and cricket, riding bicycles and Christmas parties. A small number of people had been involved in local planting projects.

Other neighbourly activities mentioned by individuals included visiting neighbours, clean up days and helping each other out. The amount of traffic in a street was noted as a significant barrier to getting involved.

MOVING AROUND THE NEIGHBOURHOOD

Many people walk to local facilities, mainly to shops and schools, but fewer people cycle. A significant number of people walk and cycle for exercise and health benefits. The majority of people walk on a regular basis with just under half saying that they were walking to local facilities daily and over a quarter walk between one and two times per week.

Distance and time were seen as the barriers to walking and cycling, along with the lack of connecting footpaths.

'Single storey suburban homes with garden space and trees. Good spacing and covering of native street trees, good shade, lots of wildlife and clean air. Peacefulness.' – Knox resident on what they like about their street

IMPROVING RESIDENTIAL STREETS

The most desired change to residential streets was slowing cars down. Others desired changes included improving and connecting footpaths, followed by better cleaning and maintenance, better plantings, better lighting, and more off-street parking.

Some other specific improvements included making the streetscape more interesting with seating, colours and public art.

FUTURE STREETS

Asked to imagine their future street, only a small percentage (13%) were completely happy with their streets now, indicating that a large majority wanted some level of change. A quarter of all people wanted more leafy and tree-lined streets, with other changes including tidier streets with less rubbish and no graffiti, less traffic, and fewer cars 'cluttering' the street space.

Asked about 'great streets' in Knox or elsewhere, most examples provided by respondents were tree-lined streets. Other qualities that people liked in 'great streets' included great neighbours, and well-laid out and maintained streets.



Blackwood Park Road, Ferntree Gully, a beautiful, exotic treed avenue



Boronia Road – a 'Bush Boulevard'



Riparian Way, Ferntree Gully a new street where existing mature trees have been incorporated into the street design