

## 21.08 INFRASTRUCTURE

17/03/2016  
C131

### 21.08-1 Infrastructure Overview

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The Infrastructure theme relates to the provision of physical and social services. The key Infrastructure themes are shown on the Infrastructure & Movement Strategic Framework Plan included in this Clause.

#### Providing and Maintaining Infrastructure

Much of the infrastructure in Knox is now in need of significant maintenance, replacement or upgrading, particularly in the more established areas, placing stress on the resources of Council. New urban development must be adequately serviced so as not to have a detrimental effect upon the environment. Contributions from developers and servicing agencies will be essential in the provision of new infrastructure and the upgrading of existing infrastructure. Poor quality infrastructure, particularly drainage and sewerage can lead to water quality problems downstream, whilst congested road systems impact on greenhouse gas emissions.

#### Integrated Transport

Current travel behaviour in Knox is strongly linked to a ‘car culture’. While many of Knox’s older suburbs initially grew around the rail corridor and associated bus routes, more recent urban development has favoured car oriented mobility. The layout of the suburbs, activity centres and streets actively encourage car use, whilst perceptions of mobility are generally linked to car ownership.

The road network system, which since 2008 included Eastlink, is important particularly as a key regional freight and commuter link for private and public transport. The regional road network is vital to the Knox’s economic vitality and image. The linkages that the major arterial road network provides are important in increasing accessibility for residents and employment opportunities from a regional and local basis.

Traffic volumes in Knox have generally grown faster than infrastructure development can sustain, particularly on the main road network. This has led to congestion and contributed to road accidents. Although Eastlink has assisted with this, there are other roads within Knox with high traffic volumes.

There is minimal fixed public transport infrastructure in Knox, with the Belgrave train line providing the only heavy rail corridor. Complementing the rail service is a bus network providing wider access to schools, shopping centres and working environments throughout Knox. The bus network continues to grow with new routes recently established in Rowville and Lysterfield. For some bus routes, dedicated bus lanes will assist by giving buses priority over other vehicles as a transport option.

*Melbourne 2030* identifies Burwood Highway, Wellington Road (west of Stud Road), Stud Road and EastLink as part of the Principal Public Transport Network. *Melbourne 2030* also details the development of a Metropolitan Tram Plan which would provide for a selective expansion of the tram network, including the extension from Burwood East to Vermont South (in operation from mid 2005), and later to Knox. The State Government’s “*Linking Melbourne Metropolitan Transport Plan*” (2004) included the initiative of the smart bus along Wellington and Stud Roads which is operational.

In addition to advocating the extension of the tram network along Burwood Highway, the City of Knox through its *Knox Integrated Transport Plan* (2004) seeks other investigation and advocacy programs to promote delivery of dedicated public transport services to improve the public transport grid across Knox for the local community. Advocacy currently includes advocating for an extension to the heavy rail along Wellington Road and part of Stud Road to the Stud Park Activity Centre.

Green Travel Plans that aim to change the travel habits of commuters, assisting in reducing greenhouse emissions and creating a safer, more socially and environmentally friendly environment and lifestyle should be used more widely.

### **Open Space and Recreation**

Knox has over 500 areas of open space and several major regional parks along its borders, and provides approximately 15.3 hectares of open space per 1,000 people compared to a metropolitan average of 9.3 hectares per 1,000 people. Many open space sites are connected by one of the most extensive shared pathway systems in Australia. This open space network makes an important contribution to the character of Knox and the outdoor lifestyle of residents, and assists in protecting important bushland and remnant indigenous vegetation.

The changing demographic profile across Knox communities suggests that recreation provision in the future will need to be more diverse and offer greater opportunities for passive and active recreation pursuits and to promote social interaction as both the number of older people and the range of cultural backgrounds increases.

Knox's *Recreation Plan 2004-2013* (2004) provides a framework of initiatives that will be responsive to current and future recreation needs of the Knox Community.

### **Community Health and Wellbeing**

Planning for land use and development should positively influence the health and wellbeing of the Knox community by facilitating outcomes that will lead to increased levels of social connectedness and cohesion.

Residents, visitors, workers, children and teenagers require a range of services and facilities. Easy access to facilities and services, including frequent and reliable public transport, is essential in making Knox more attractive for families in different lifecycle stages. These services include families' and children's health services, library and other information services, community support and recreation services, education and employment services, shopping precincts, and services for people with disabilities and cultural specific services.

Like new housing, new health and community facilities should ideally be located close to existing public transport networks and hubs of activity that provide essential goods and services. The establishment of a medical precinct near the new Wantirna Health centre (opened in 2007) will provide a clustering of like services for the convenience of users.

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## **Infrastructure Objectives and Strategies**

### **Objective 1 (Providing and Maintaining Infrastructure)**

To ensure that the provision of new infrastructure is designed to contribute positively to the urban fabric and fulfil the needs of its intended life.

#### **Strategies**

- Provide opportunity for development without impacting on the efficiency of existing infrastructure.
- Provide for the maintenance of existing infrastructure to an appropriate standard while development continues.
- Adopt good design principles and recognise relevant standards.

### **Objective 2 (Providing and Maintaining Infrastructure)**

To ensure that residents have improved access to services, facilities and public transport.

#### **Strategies**

- Support new housing in locations that have existing access to frequent and reliable public transport facilities and services.

- Require Social Impact Assessments (where a need has been identified) for key strategic redevelopment sites or larger residential developments to identify the level of physical and social infrastructure required to be provided.
- Increase population in and around activity centres, community infrastructure and public transport nodes to provide increased demand for services and increased accessibility.
- Require a contribution (where a need has been identified) to physical and community infrastructure through the application of Development Contributions Plans.
- Encourage the co-location of community facilities.

### **Objective 3 (Integrated Transport)**

To provide a safe integrated movement system that increases levels of accessibility, use and transport choice for all members of the community.

#### **Strategies**

- Improve connectivity between new and existing residential areas to existing transport networks.
- Ensure the maintenance and upgrade of transport infrastructure to meet existing and future transport needs of the community.
- Encourage increased housing densities along the principal public transport network and in activity centres.
- Enhance walking and bicycle routes between activity centres and surrounding neighbourhoods.
- Develop the pedestrian network in a manner that makes walking a viable transport choice.
- Reduce car parking requirements as appropriate in activity centres and along the Principle Public Transport Network where public transport services provide a real alternative to car use.
- Integrate walking and cycle paths with local street systems.
- Develop spaces and facilities that support use of the walking network and create interest and points of interaction through landscaping, links to shops, park benches, views and public art.
- Integrate public transport facilities in the redevelopment of shopping centres.
- Require new development to provide footpaths and/ or cycle paths where appropriate to complement the existing path network.
- Encourage shared pedestrian and bike path networks.
- Ensure that new development improves the safety, connectivity and accessibility of pedestrian, shared path and bicycle networks.

### **Objective 4 (Open Space and Recreation)**

To provide accessible, linked open space areas.

#### **Strategies**

- Implement improvements to local and neighbourhood parks and creek corridors including planting and improved pathways and facilities.
- Use indigenous species (of local provenance) when undertaking planting on publicly owned or managed land (eg roadsides, along creeks, in parks/reserves/gardens, etc).
- Improve access to and the quality of open space in deficient areas and upgrade the appearance of community outdoor areas.

- Require a public open space contribution for subdivisions.
- Ensure planning for new development provides accessible, linked open space and protects natural values.

**Objective 5 (Community Health and Wellbeing)**

To ensure that social infrastructure is accessible and meets the existing and future needs of the community.

**Strategies**

- Encourage community facilities to be co-located and multi purpose to service a range of activities.
- Encourage community facilities providing essential services such as education, employment, healthy food options and health care to be visible, accessible and located near nodes of activity and public transport routes as appropriate.
- Encourage key development proposals to consider providing active, secure and safe public realm opportunities.
- Provide or support the provision of social infrastructure that supports individuals and families throughout their life cycle.
- Encourage the design of development (where appropriate) to be flexible and adaptable to accommodate a variety of uses through the building lifespan to accommodate the needs of a changing community.

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**Infrastructure Implementation**

These strategies will be implemented by:

**Using zones, overlays, policies and the exercise of discretion.**

- Applying the *Knox Central Principal Activity Centre* local policy at Clause 22.04.
- Applying the *Scoresby-Rowville Employment Precinct* local policy at Clause 22.08.
- Applying the Residential Development and Neighbourhood Character local policy at Clause 22.07.
- Requiring a public open space contribution for subdivision to be utilised in accordance with the *Knox Open Space Plan 2004-2014* (2004).
- Implement the objectives of the *Knox Integrated Transport Plan* (2004).
- Achieving greater connectivity by different modes of transport.
- Ensuring land use and development responds to the social needs of the community.
- Ensuring that new development interacts with the public realm, including waterways and open space areas.
- Considering the impact of new development on existing physical infrastructure.
- Applying the Special Building Overlay in areas identified as subject to flooding from the local drainage system and Melbourne Water assets in the design storm event.

**Undertaking further strategic work**

- Continue to establish management plans for key recreational facilities.
- Implement the *City of Knox Stormwater Drainage Strategy 2005*.

**Undertaking other actions**

Providing and Maintaining Infrastructure

- Provide guidance on appropriate design and construction standards relating to the provision of infrastructure and subdivision.
- Work with the Country Fire Authority to determine and plan for the need for firefighting infrastructure.

#### Integrated Transport

- Negotiate with VicRoads to improve pedestrian crossing facilities of declared arterial roads through installation of new pedestrian signals and improved signal phasing.
- Develop and implement a program of streetscape works to improve general amenity for pedestrians in conjunction with the Place Management Program for activity centres.
- Work with State Government and public transport companies to enhance transport infrastructure and service delivery.
- Provide appropriate reference documents and guidelines for developers that outline requirements relating to integrated transport objectives and strategies for City of Knox.
- Ensure that no future transport project is delivered without an examination of complementary transport opportunities.
- Encourage the extension of the “light” rail along Burwood Highway to Knox Central Activity Centre and transport interchanges at key locations.
- Encourage the provision of the Rowville heavy rail extension.
- Encourage the extension and frequency of bus services in residential neighbourhoods.
- Establish priorities for upgrading transport infrastructure and identify sources of funding.
- Advocate for improved public transport infrastructure and services to coincide with housing provision.

#### Open Space and Recreation

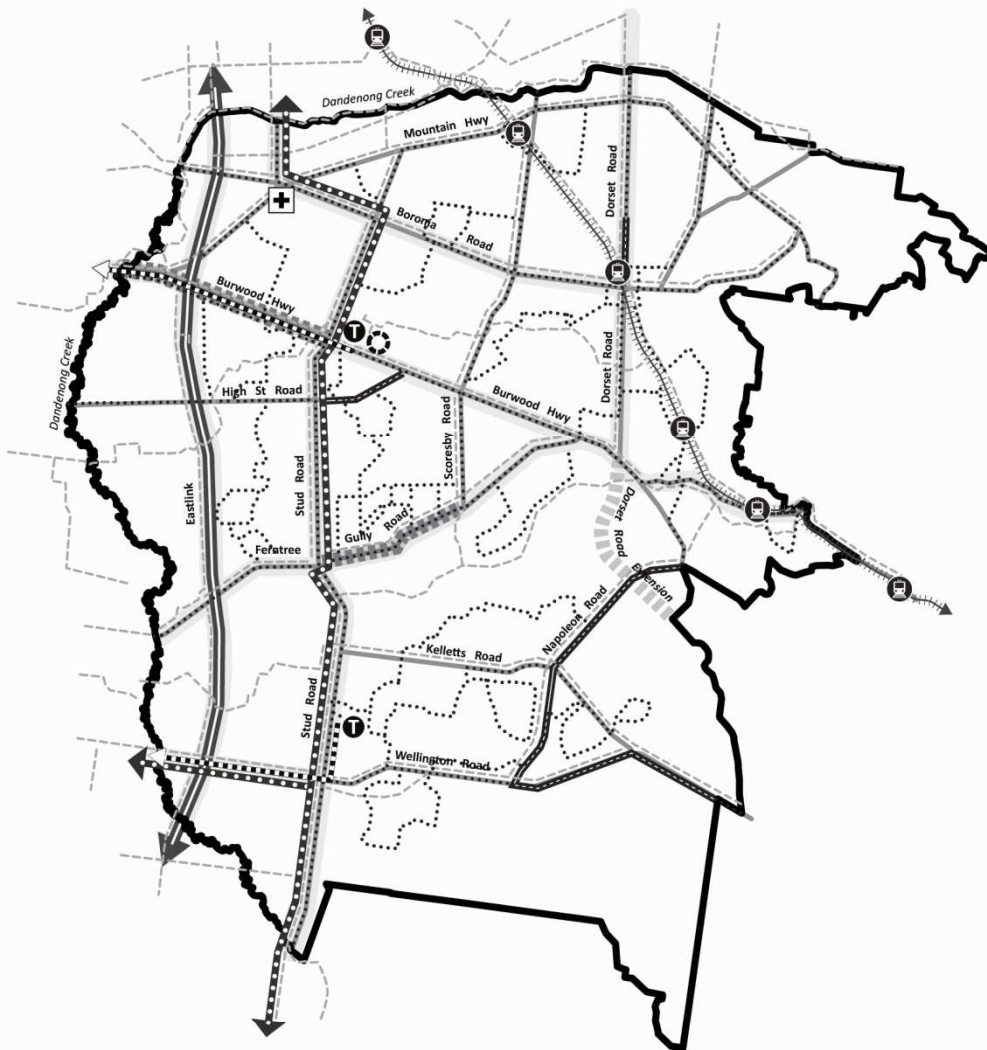
- Work with the Department of Sustainability and Environment and Parks Victoria to co-ordinate the provision of trails.
- Work with community organisation in the management of open space and recreation areas.
- Actively manage bushland reserves and other indigenous vegetation to protect important values for the long-term future.
- Explore the opportunities for government, private sector and community agency involvement in the provision of facilities and infrastructure to meet the current and future needs of the community.
- Improve the amenity, accessibility and opportunities in public open spaces through open space planning.
- Continue to prioritise projects for capital works program and partnership initiatives.
- Provide a wide range of active and passive recreation and leisure pursuits that are affordable and accessible to all members of the community.

#### Community Health and Wellbeing

- Collaborate with private and public sectors to develop a broader range of community health and wellbeing services or initiatives.
- Support the initiatives and policy objectives of the *Community Health and Well-Being Strategy 2003-2006* (2003) and the *Knox Affordable Housing Action Plan 2007-2012* (2007).
















- Continually monitor and research the needs of the local community to ensure that planning meets current and forecast community needs.
- Work with State and Federal Government agencies, non-government organisations to plan and determine the need for social infrastructure.
- Work with State and Federal agencies to develop social infrastructure into areas of community focus and activity.

INFRASTRUCTURE AND MOVEMENT FRAMEWORK



LEGEND



-  MUNICIPAL BOUNDARY
-  RAIL CORRIDOR / TRAIN STATION
-  PRINCIPAL PUBLIC TRANSPORT NETWORK
-  DECLARED ARTERIAL ROAD
-  EASTLINK
-  FUTURE DORSET ROAD EXTENSION
-  FUTURE MAJOR ROAD IMPROVEMENT AND DUPLICATION PROJECT
-  FUTURE MAJOR ROAD WIDENING / ADDED LANES
-  BIKE PATH
-  CIVIC PRECINCT
-  MEDICAL PRECINCT
-  SMART BUS
-  FUTURE BURWOOD HIGHWAY TRAM / ROWVILLE TRAIN
-  BUS ROUTE
-  TRANSPORT INTERCHANGE