PAYNESVILLE GROWTH AREA

STRUCTURE PLAN

July 2016

Adopted by Council on 2 August 2016

Tim Weight CONSULTING

THE RIGHT MAN

DESIGN URBAN

Contents

1. INTRODUCTION

1.1 Background

Since its settlement in the late 19th century as a small lakeside fishing village, Paynesville has always undergone growth and change.

From the collection of fishermen's cottages, hotels and stores along the foreshore at the turn of the 20th Century, through the baby boom and post-war housing growth as a young community strongly linked to employment in Bairnsdale, to the growth in tourism and lifestyle appeal for retirees, the town has expanded substantially to the north and west. Paynesville has been transformed over the past 30 years by investment in residential canal estates, retail and commercial facilities, boating infrastructure, education, health and community facilities.

In essence, however, Paynesville has retained its same local character as a small lakeside town, physically and visually connected to the water and surrounding landscape, reflected in the wide tree-lined streets in the older section of the town, good accessibility to the foreshore and town services and a strong sense of local identity.

The aim of the Paynesville Growth Area Structure Plan is to maintain and enhance that identity, so that the town can continue to grow and change to meet the needs of the future.

The East Gippsland Planning Scheme (Clause 21.12-2), includes as Objectives for Paynesville:

- *To enhance the town centre.*
- *To build on the strengths of Paynesville as the best boating destination on the Gippsland Lakes.*
- *To improve access, safety, circulation and legibility of roads and pedestrian links along the foreshore, throughout the town and into the hinterland.*
- *To manage the expansion of the town boundary and new residential development to ensure a variety of housing types and styles and add to the special character of Paynesville.*
- *To maximise tourism opportunities.*

In relation to town growth, the following strategies apply:

"Plan for expansion of the town westwards generally between Waratah Avenue and Grandview Road." and

"Work closely with landowners to develop Structure Plans for the extension of Paynesville within the Settlement Boundary, ensuring that the east-west separation between Paynesville and Eagle Point is appropriately managed to maintain the separate physical identity of the towns."

The Paynesville Growth Area Structure Plan aims to put in place a broad plan to meet the above objectives over a 30-40 year period and to ensure that the best possible outcomes for the sustainable growth of the town.

1.2 Preparation of the Structure Plan

The development of the Paynesville Growth Area Structure Plan (PGASP) was undertaken in two main stages.

In 2013 a community consultation and structure planning process was undertaken by consultants working for East Gippsland Shire Council to establish key principles and requirements for future growth. A substantial amount of consultation was undertaken to establish community aspirations and to develop and document options for the future urban structure of the growth area.

Initial assessment of site constraints and opportunities was undertaken, including community workshops to establish community values and to identify the key issues that need to be addressed in planning for future growth of the town.

In 2015 this work was reviewed and updated, based on further community input, consultation with the Council and landowners and refinement of planning objectives and outcomes. This second stage of work sought to establish a much clearer and responsive design philosophy for the growth of Paynesville and a strong focus on the character and identity of new growth and a shift to a more sustainable, attractive and liveable urban environment in the lakeside setting.

The work included further assessment of opportunities and constraints for the growth area, the identification of preferred road and open space layouts, traffic assessment, and review of native vegetation requirements, including ecological and cultural heritage assets.

Further investigations included traffic modelling and impact assessment, hydrological analysis, native vegetation scan, and social impact assessment.

Substantial local knowledge and technical information about the Paynesville Growth Area have informed the preparation of the PGASP and it has been guided by the views and preferences of community members through extensive consultation.

Consultation with community members through targeted community focus groups and meetings with all landowners and their representatives was undertaken to test propositions for the initial structure plan and obtain further input on preferred development options.

This background information is included in Appendix 4.

The final preferred urban structure plan and this document have been prepared with the aim of satisfying community aspirations for the growth area, including the stated desires of landowners for a practical and achievable plan and within the broader policy requirements of Victorian Government agencies and the East Gippsland Shire Council.

1.3 Purpose

The purpose of the Paynesville Growth Area Structure Plan (PGASP) is to provide a set of desired outcomes, objectives, guidelines and requirements for future development of the growth area, based on principles of good urban design and sustainability.

It aims to:

- Plan the structure of the growth area previously established in the Urban Design Framework for Paynesville which identified land for the foreseeable long-term urban growth of Paynesville (up to 35-40 years). Plan for the services necessary to support the town's economic and social well-being;
- Outline and describe a preferred urban structure that broadly defines the allocation of land for future residential development, open space, drainage and other urban uses to support sustainable growth, good urban design and housing choice within the Paynesville township boundary;
- Provide a road hierarchy and standards; identify future traffic and pedestrian circulation; and identify road and intersection upgrades necessary to provide for safe and efficient movement within, to and from the study area – including plans for funding of that infrastructure;
- Plan for the appropriate mix and separation of urban land uses necessary to achieve a vision for optimum community and economic outcomes;
- Identify key townscape themes that will be incorporated into the public realm to retain and reinforce the local identity, urban character and sense of place for Paynesville;
- Take advantage of the environmental and social values that are unique to Paynesville and which give the town its competitive advantage as a place to live, work and play;
- Incorporate sustainability principles to minimise the environmental footprint of development;
- Include assessment of social impact to guide the provision of community infrastructure and services;
- Integrate public open space, foreshore areas and pedestrian/cycle networks to achieve conservation and recreational objectives;
- Identify the social infrastructure required both within the study area and the town as a whole to provide optimum facilities and services for the community, including practical and effective arrangements for funding and delivery.
- Incorporate a Development Contribution Plan into the Planning Scheme to assist in funding key infrastructure within the PGASP;
- Provide for the transfer of land required for key movement corridors and development of walking/cycle paths as early as possible in the development process;
- Provide guidance on the preparation of Planning Scheme Amendments; transfer of land for, and management of, public open space assets; and delivery of infrastructure investment in the study area.
- Review and update key recommendations of the Paynesville Urban Design Framework.

1.4 Planning Policy Context

The PGASP is informed by:

- The State Planning Policy Framework and Local Planning Policy Framework as set out in the East Gippsland Planning Scheme;
- The Paynesville Urban Design Framework 2006;
- Local policy and strategy plans including:
  - Paynesville and District Community Plan 2012
  - East Gippsland Shire Council Urban Waterways Strategy 2012
  - East Gippsland Regional Towns Industry Study 2012
  - Paynesville Foreshore Management Plan (draft) 2015; and
- A range of other State and local legislation, policy and plans.

The PGASP is intended to be adopted and implemented through the East Gippsland Planning Scheme to guide further urban design, subdivision and development within the growth area.

The PGASP does not absolve any party from obligations under Commonwealth, State and Local Government legislation. It seeks to maintain consistency with those obligations in setting development objectives and requirements to achieve the community's desires for sustainable growth outcomes for Paynesville.

In particular, it is guided by the objectives of the Paynesville Urban Design Framework, as follows:

1. Improve pedestrian and bicycle links to nearby towns and attractions including Newlands Arm, Raymond Island, Eagle Point, Banksia Peninsula, the Mitchell River Silt Jetties and Bairnsdale.
2. Plan for open space links to foreshore areas and walks from north to south.
3. Plan for the expansion of the town westwards generally between Waratah Avenue and Grandview Road.
4. Encourage a variety of lot sizes in new subdivisions, with an average gross lot yield of 8 to 10 lots per hectare.
5. Ensure there is a distinct separation of Eagle Point and Paynesville urban areas with appropriate forms of development that incorporate extensive open space.
6. Require expansive green edges to abut entry roads to maintain the sense of country atmosphere to the arrival experience. On the south side of Bairnsdale Paynesville Road this is to consist of a minimum 15 metre vegetated setback.
7. Investigate the possibility of allocating land for clean, non-maritime industrial uses and commercial uses servicing the local community.

An objective of the Community Plan for Paynesville and a key role for this document is to ensure that new residential development is sympathetic to, and supports retention of, the character of Paynesville as a lakeside town.

The plan describes a pattern of land use and development that will: provide good connections to the existing town and foreshore areas; provide spacious streets and landscape corridors; stimulate variety in residential lot sizes; and sensitively locate land uses to support Paynesville's future growth.

1.4 How to use this document

The Structure Plan guides land use and development for the urban growth area where a planning permit is required under the East Gippsland Planning Scheme.

Existing planning permits are in place for the 'Coast' development where a 376 lot subdivision permit exists for the first constructed stage and for the undeveloped land zoned in the General Residential Zone in the south-east portion of the growth area. The preferred urban structure shown in this plan has been prepared to generally align with and enable the permitted 376 lot development, should it proceed in accordance with approved plans. Should further planning permits be sought for alternative development or staging of development within this land, the provisions of this PGASP will apply to ensure development within the growth area is integrated and that an orderly and efficient pattern of growth occurs.

The PGASP requires the preparation of an overall development plan for each landholding, demonstrating general conformity with this document and the coordination and integration of development on adjoining land.

Development Plans, overlays, planning applications and planning permits must implement the outcomes of the PGASP. The outcomes are expressed by the Vision, Objectives and Requirements. Possible ways to achieve these outcomes are included in the Guidelines.

Each element of the PGASP contains objectives, requirements and guidelines as relevant.

Objectives describe the design outcomes that apply to the PGASP that must be met to achieve the vision for the area.

Requirements must be adhered to in development of the land. Where they are not demonstrated in a Development Plan or permit application, requirements may be included as a condition on a planning permit or obligations in a legal agreement, whether or not they take the same wording as the structure plan, to achieve its intent.

Guidelines express how the discretion will be exercised by the responsible authority in certain matters that require a planning permit. If the responsible authority is satisfied that an application for an alternative to the guidelines implements the outcomes, the responsible authority may consider the alternative.

These objectives, requirements and guidelines will operate within the statutory planning framework to implement the outcomes of the PGASP. The PGASP also includes recommendations for a Development Contributions Plan, to apportion the costs of key infrastructure where multiple landowners benefit from the infrastructure, and for the preparation of legal agreements to deliver infrastructure by individual landowners within or directly adjacent to their landholdings.

A range of other measures are also recommended to facilitate implementation of the PGASP, including agreements between Council and other agencies for the future management of foreshore reserves, processes for preparation of Development Plans for each landholding, early delivery of landscape corridors and walking/cycling connections, and forward planning and budgeting for expansion and maintenance of public facilities.

Development must also comply with all other Acts and approvals where relevant, including the Environment Protection and Biodiversity Conservation Act 1999, Aboriginal Heritage Act 2006, amongst others. These requirements will be applied at the Planning Permit stage.

1.5 Land affected by the Paynesville Growth Area Structure Plan

Figure 1: Paynesville Growth Area Structure Plan – Land affected by the PGASP

Land affected by this Structure Plan comprises land holdings to the west of the existing Paynesville town area. The affected land has a total area of 227 hectares, including land used for grazing, some existing vacant residential-zoned areas and the Paynesville Cemetery. The area is bounded generally by Grandview Road to the west, Newlands Drive to the south, Lake King and Bay Road to the north and the existing urban area to the east.

The Structure Plan area includes land in the General Residential Zone 1, Farming Zone 1, Road Zone 1 and Public Conservation and Recreation Zone.

It includes land in the General Residential Zone in the south-eastern portion of the growth area, and shown in Figure 1 as “Existing Planning Permit”. This land is included for the purposes of showing the overall preferred development of the Study Area, but will only be subject to the requirements of the Structure Plan in the event that a new planning permit is issued for the land.

The coordinated development of this parcel and the adjoining land to the west is critical to achieving the objectives of the East Gippsland Planning Scheme and this Structure Plan, in particular, the appropriate staging of development to facilitate timely extensions of Ashley Street and King Street towards the west.

If new or amended planning permits are sought for this land, it must be demonstrated that the development will generally be in accordance with this Structure Plan and will not prejudice the timely and efficient development of adjoining land.

Directly to the west of land affected by the PGA Structure Plan (north of Paynesville Road) is the Eagle Point Growth Area to which a separate structure plan will apply.

Land to the west of Grandview Road (south of Paynesville Road) is not included within existing defined urban growth areas – although a part of that land is proposed for consideration as the site for the Paynesville Employment and Emergency Services Precinct as an adjunct to this structure plan – on the basis such a precinct is seen as preferably located on the outer edge of the Paynesville Growth Area. The rationale for this location is contained later in this report.

The achievement of a suitable transition from the rural landscape west of Paynesville to the town itself also requires management of the approaches to the town and view corridors, to ensure that development of land outside the structure plan area does not detract from the objectives of this plan.

1.6 Assumptions for Growth

1.6.1 Land supply, Lot Yield and Population

The PGASP aims to plan the development of the growth area in which the Urban Design Framework identified sufficient land for the foreseeable long-term residential growth of Paynesville; and the provision of services to support the town's economic and social well-being.

Profile ID's data regarding population forecasting for Paynesville (1) indicates an increase over the next 20 years from an estimated population in 2016 of 3,508 people to a population in 2036 of 4,945 people (Profile ID, East Gippsland Shire Council - October 2013).

There are projected to be 784 dwellings to accommodate growth over that period.

The total maximum lot yield for the area within the structure plan is estimated for the purpose of the structure plan to be 1,375 lots, at the top end of the expected density range of 8-10 dwellings per hectare. At predicted occupancy rates for Paynesville of 2.13 persons per dwelling, this will accommodate an additional population of 2,928 people.

At current and projected rates of growth, the PGASP area equates to 35 to 40 years of demand, not including demand taken up by infill development of existing residential areas, for which there is significant potential. The 35 to 40-year time frame is therefore a conservative estimate.

This structure plan exceeds the rule of thumb requirement to plan for urban supply of 20 years, but in doing so it satisfies long-term growth needs for the foreseeable future within the already designated urban boundary.

Despite the long time frame to achieve ultimate development, there is no strong rationale to "withhold" land within the growth area for future rezoning, and there are some advantages in rezoning all of the growth area to enable stages of development to commence on the different landholdings and provide different products to the market.

1.6.2 Infrastructure and Servicing

Each of the landholdings is able to be efficiently serviced and logical extensions of major services can occur on a number of fronts, provided there is general consistency with the preferred urban structure and requirements of the Structure Plan.

Extension of the road network, sewer, water, power, gas and telecommunications services will be undertaken by developers at their cost in accordance with the requirements of service providers. Where land transfers and development of infrastructure for drainage, open space, pedestrian/cycle connections, road intersections and upgrades are required, these form part of the Developer Contributions Plan, which outlines the requirements and costs to be met in providing these facilities.

A Community Infrastructure Contribution will also be provided per lot to contribute to any required upgrading of existing community services outside of the growth area.

The Plan also allows for a transitional form of development to occur through the subdivision of larger lots with requirements in place to facilitate the longer-term re-subdivision of these lots to achieve the ultimate residential yield. Over the time period of development monitoring and review of the structure plan will need to occur to coordinate lot release and the delivery of infrastructure.

1.6.3 Traffic

The objective of the traffic modelling is to ensure that the road network is capable of meeting traffic demand, however it is important that traffic generation is not overestimated and that no more road infrastructure is provided than will be required.

Over-design of the road system has the potential to conflict with the planning objectives for the area by creating excessive road pavement widths (thus reducing the available space for pedestrians and cyclists, landscape corridors and infiltration of surface water), encouraging higher traffic speed, and adding unnecessarily to the cost of initial development.

The risk of “under-design” is much less given the long period of development and opportunity to review actual traffic generation over time. Generous road reserves are proposed to accommodate local place-making objectives and to create spacious street corridors for multiple use (street trees, lighting, pedestrian/cycle movement, storm water management). In the unlikely event that traffic generation exceeds the predicted volumes, there will be time and capacity to upgrade the road network. But this would require traffic volumes to be 2.5 times the current measured trip generation in Paynesville.

The IDM standard is 10 trips per day for residential dwellings, however the IDM specifically anticipates variations from this standard figure on an evidence base. Where actual measurement of traffic generation in a locality demonstrates a lower traffic generation figure, that data should be used as the primary evidence-based guide.

Evidence from traffic monitoring undertaken in Paynesville indicates a traffic generation rate of 4 vehicles per day.

Anecdotally, the reasons for the residential traffic generation figures to be less than the adopted standard may include:

- Older age profile of the community, including a much higher proportion of retirees and semi-retirees, who are less likely to undertake daily trips related to work, children’s’ sporting activities, or convenience shopping as might be undertaken by working families with children;
- Different socio-economic characteristics in Paynesville including single-parent families and lower levels of car ownership.

The modelling therefore adopts a traffic generation rate of 7 vehicles per day as a conservative assumption, well in excess of the measured actual rate. Given the benefits of providing a road network that is designed for optimum, rather than maximum volumes of traffic, and the long time period over which actual traffic volumes can be monitored, there is no tangible disadvantage in modelling and designing the road network based on this figure.

2. OUTCOMES

2.1 Vision

The Paynesville Growth Area will provide an attractive, spacious and accessible residential environment for approximately 2,750 additional residents by 2055.

It will provide for a range of family types and lifestyles, with good access to employment, services and facilities, while maintaining the function of the Paynesville town centre and maritime precinct as the preferred locations for retail and commercial services and maritime activities respectively.

Entry to Paynesville at the Grandview Road intersection will strongly reinforce a transition from rural and lake vistas and arrival in a spacious lakeside urban parkland environment.

A well-connected road network will allow for convenient and efficient traffic movement and distribution of traffic.

Residential neighbourhoods with dwellings and lots suitable for a range of lifestyles will be well connected to the existing township via existing roads and new extensions to Ashley Street and King Street; connections of Fullarton Drive and Bay Road with Paynesville Road and to the foreshore and cycling paths on Newlands Arm and Lake King.

The area will accommodate an independent primary school to the west of the existing school and a new site for a petrol station and associated services on Paynesville Road.

An employment and emergency services precinct will be established on the western side of Grandview Road, in a landscaped parkland setting, to accommodate additional local services for the town and support local employment.

The new residential neighbourhoods will have spacious tree-lined streets, a variety of residential lot sizes and centrally-located open spaces for local recreation and relaxation.

Generous open space linkages and pedestrian/cycle corridors will provide convenient off-road access into the existing town and to connect with public foreshores. The Lake King foreshore will be managed and protected as an important environmental and public open space asset.

Open spaces will create green corridors supporting natural drainage and provide off-road connections for cyclists and pedestrians, retaining as much native vegetation as possible and enhanced with new plantings.

The growth area will provide for a range of residential lot sizes and options for a diverse and inclusive community, aged care and visitor accommodation and other land uses to meet social and economic needs for Paynesville.

Strong native landscape themes will provide visual and environmental character for the growth area, establishing tree-lined avenues, movement corridors and an urban landscape respectful of the lakeside location.

The cost of provision of infrastructure to service the community will be apportioned through development contributions by landowners, augmented by public investment to support on-going maintenance and management of services and amenities.

2.2 Achieving the Vision

The Vision described above will only be achieved over a long period and through a combination of planning and development processes that will occur over many years.

These processes include:

- Adoption of the Structure Plan and the provisions of this document in the East Gippsland Planning Scheme to establish a statutory basis for the approval of more detailed plans for the growth area;

- Implementation of a Development Plan Overlay for the growth area, setting requirements for more detailed planning to satisfy the objectives, requirements and guidelines contained in this document;

- The rezoning of land to allocate areas for residential and other land uses with negotiated legal agreements to establish obligations with respect to land transfer, infrastructure and staging requirements;

- Preparation by landowners of Development Plans for individual landholdings proposed for subdivision, including more detailed investigation of site constraints, vegetation, sites of cultural heritage significance, and the detailed design and layout of streets and lots;

- Implementation of a Developer Contributions Plan, setting out the financial arrangements for equitable delivery of shared infrastructure, potentially including some roads and intersections, open spaces, foreshore reserves drainage facilities, landscaping and other services required to support land development;

- Preparation by landowners of Precinct Infrastructure Plans to demonstrate orderly and efficient delivery of local infrastructure and show staging and lot thresholds;

- Planning by Council for public works and future maintenance of public land identified in the Structure Plan and subsequent Development Plans;

- On-going engagement and consultation with the community to provide opportunities for community input and review of more detailed proposals as part of the consideration of Development Plan Overlay requests.

- Subsequent preparation of a Planning Scheme Amendment by Council will be dependent upon negotiations with individual landowners to reach agreements in relation to transfer of land processes, financial contributions, sequencing and staging requirements, and preparation of precinct infrastructure plans.

2.3 Planning and Design Principles

The following planning and design principles underpin the vision described above. They are principles that should guide the detailed design and development implementation processes over time.

2.3.1 Town character and identity

Entry to Paynesville will be at Grandview Road, where the transition for a rural landscape and views across Lake King and of tree-lined road corridors signal arrival in the town.

Neighbourhood design should seek to create an urban character that is spacious, well-connected, and distinctive, through the overall road and lot layout, landscape and open space design, entry thresholds, street character and variety in lot size and design.

The design, layout and orientation of subdivisions should maintain a primarily grid-like pattern of wide landscaped streets to deliver a preponderance of desirable east – west oriented lots, with accessible local open spaces and parkland corridors connecting neighbourhoods and the existing town.

Tree-lined road corridors on the major approaches and internal street system and generous landscaped open spaces will create a distinctive park-like townscape and vistas.

2.3.2 Urban Land Use

The growth area is intended primarily to accommodate residential land use. Compatible land uses including retirement living and aged care facilities, schools and community facilities will be encouraged to support local community needs.

Retail, commercial or industrial land uses are not needed or desirable in the growth area. An area for small-scale service business activities and emergency services has been identified to the west of Grandview Road and can be accommodated in a landscaped setting outside the residential area to avoid conflict with residential use.

Tourism development is encouraged on designated land in the study area, to provide sensitively developed accommodation and tourist facilities designed to blend into a semi-rural landscape at the entry to Paynesville on Waterview Road.

An alternative/additional service station site is able to be accommodated on Paynesville Road, just west of the cemetery, with suitable access via service road and appropriate separation from nearby residential areas.

2.3.3 Movement Network

The road network should be designed to achieve a distribution of traffic and choice of route into and through the town.

The street network design should provide capacity sufficient to cater for traffic volumes based on evidence of local trip generation and avoid over-design based on arbitrary traffic volume predictions. For the purpose of road design within the structure plan area, a trip generation of 7 vehicles per day per dwelling is assumed, based on local evidence.

Paynesville Road and Grandview Road should form tree-lined avenues with a minimum number of connector road intersections provided to provide choice of vehicle movement through the growth area.

Connector roads and residential streets should generally form a north-south and east-west grid pattern and provide generous reservations for tree planting and pedestrian/cycle paths.

Local street layouts shall create a permeable street network for vehicles and pedestrians/ cyclists, avoiding cul-de-sacs and indirect line of travel.

Off-road pedestrian and cycle links shall be provided along the alignment of Paynesville and Grandview Roads and through open space connections within the growth area to provide safe access to residential areas, foreshores and the existing town area.

2.3.4 Foreshores and Wetlands

Protection of the recreational and ecological values of foreshore and wetland areas on Lake King shall be of the highest priority.

Areas of foreshore land below 2.8 metres AHD shall not be developed for urban purposes and should generally be transferred to public ownership and managed to maintain ecological values.

Foreshore reserves should be accessible for passive recreation (primarily walking and nature watching) where appropriate, and managed for conservation purposes in more sensitive areas.

The unmade road reserve connection between Bay Road and Fullarton Drive and the Eagle Point-Paynesville walking/cycling path should generally define the southern boundary of the foreshore reserve to provide a buffer for vegetation and environmental protection.

Foreshore areas should be revegetated with suitable species where required.

Drainage and nutrient stripping on foreshore reserve areas shall be designed and implemented to prevent adverse environmental effects.

2.3.5 Public Open Space

Public open space should be provided in central locations within 400 metres of all residents.

Local neighbourhood spaces should provide passive and active recreational opportunities for all ages, with play facilities, seating, landscaping and amenities to meet local demand.

Landscaped open space corridors will connect neighbourhoods and the existing town and foreshore areas for pedestrians and cyclists, providing a district movement network

Open space should be designed and landscaped to provide habitat for wildlife and assist with drainage functions through water sensitive urban design.

2.3.6 Drainage and Water Management

Stormwater drainage will be integrated into the overall design of new subdivisions through water sensitive urban design, including retention and infiltration at source, the creation of areas for stormwater detention and nutrient stripping (such as “water gardens” within open space and road reserves), to minimise volumes of stormwater flow and nutrients exiting the areas.

Stormwater management can be integrated into the design of residential lots, roads and open space (including the Lake King foreshore reserve), providing that the recreational functions are also maintained.

2.3.7 Infrastructure and Subdivision Works

Infrastructure and works to facilitate subdivision and development shall be designed and developed to meet the objectives of the structure plan, which establishes functional

requirements for roads, pedestrian/cycle paths, open space, drainage and other infrastructure.

Public infrastructure should be designed for sustainability, efficiency and amenity of residential areas, avoiding a “standardised” approach, in favour of using local materials and creating a unique urban character in streets and public spaces.

The Infrastructure Design Manual (IDM) used by Council to achieve standardised design of public infrastructure provides for discretion to vary design standards to meet local objectives. Where the requirements of this structure plan conflict with the IDM, the objectives and requirements of this Structure Plan take precedence.

2.3.8 Coastal Inundation

This Plan adopts a position that the any development of the subject land is new greenfield development outside current town boundaries for the purpose of planning for sea level rise and coastal inundation.

Planning for land at risk of inundation, including an allowance for sea level rise of not less than 0.8 metres by 2100, means that all land below the level of 2.8 metres AHD will be excluded from urban development, in accordance with the Victorian Coastal Strategy and State Planning Policy Framework.

2.4.9 Sustainability

Residential development within the growth area should provide a range of housing choices in neighbourhood environments designed for sustainability, through water sensitive urban design, energy efficiency, promotion of walking and cycling and public realm design measures intended to support a cohesive and accessible community.

Development should accommodate a range of family types to support community diversity.

Development within the growth area should meet the highest standards of environmental efficiency.

The growth area should provide opportunities for tourism, business and employment in designated areas.

The sustainability of the Paynesville Growth Area will also be augmented by the significant plantings proposed within the Structure Plan for roadsides; streetscapes; public open spaces, drainage wetlands and retention basins and foreshore reserve revegetation.

2.5 Preferred Urban Structure

The Paynesville Growth Area Structure Plan is illustrated in Figure 2 below.

Figure 2: Paynesville Growth Area – Preferred Urban Structure

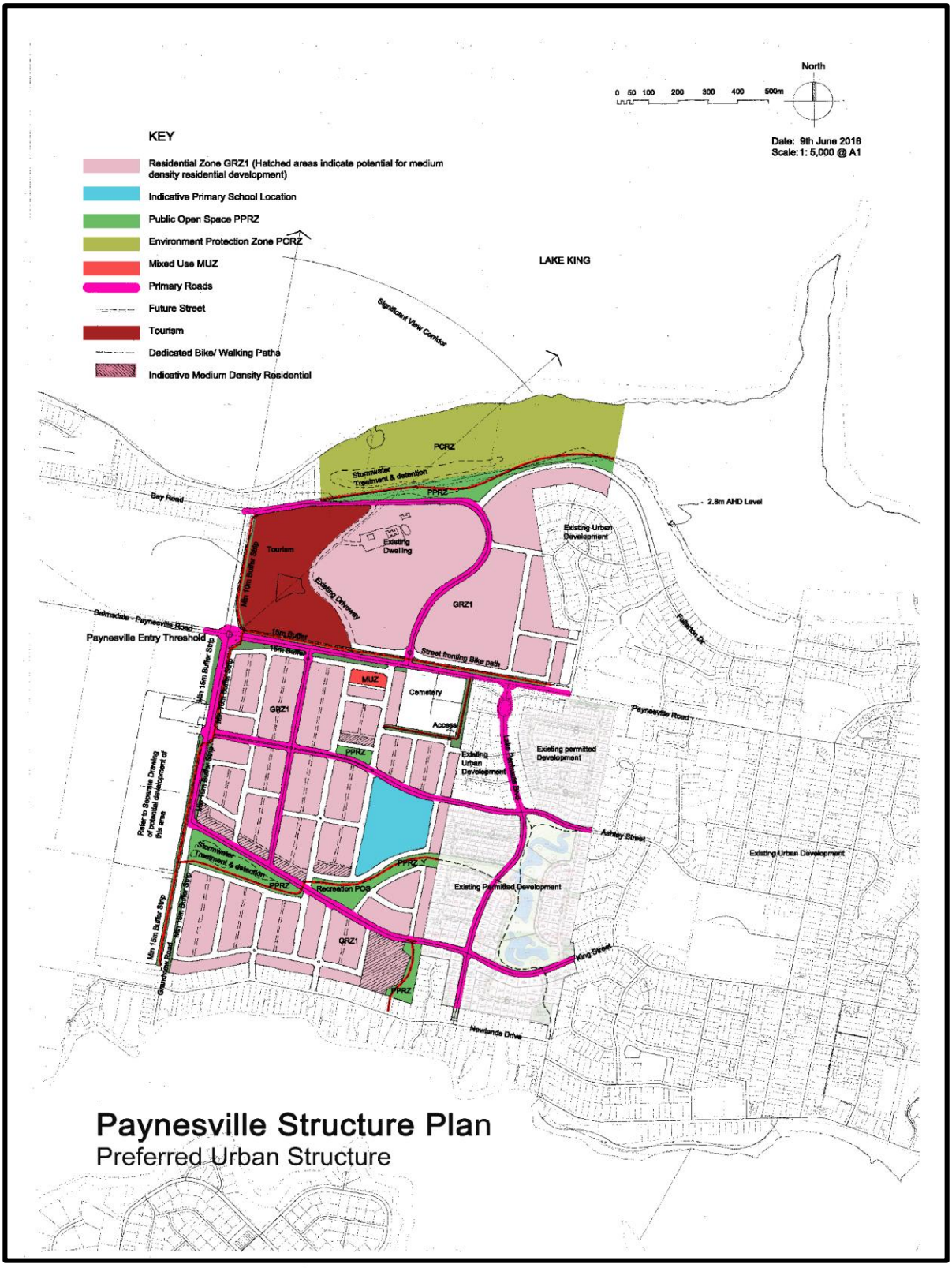
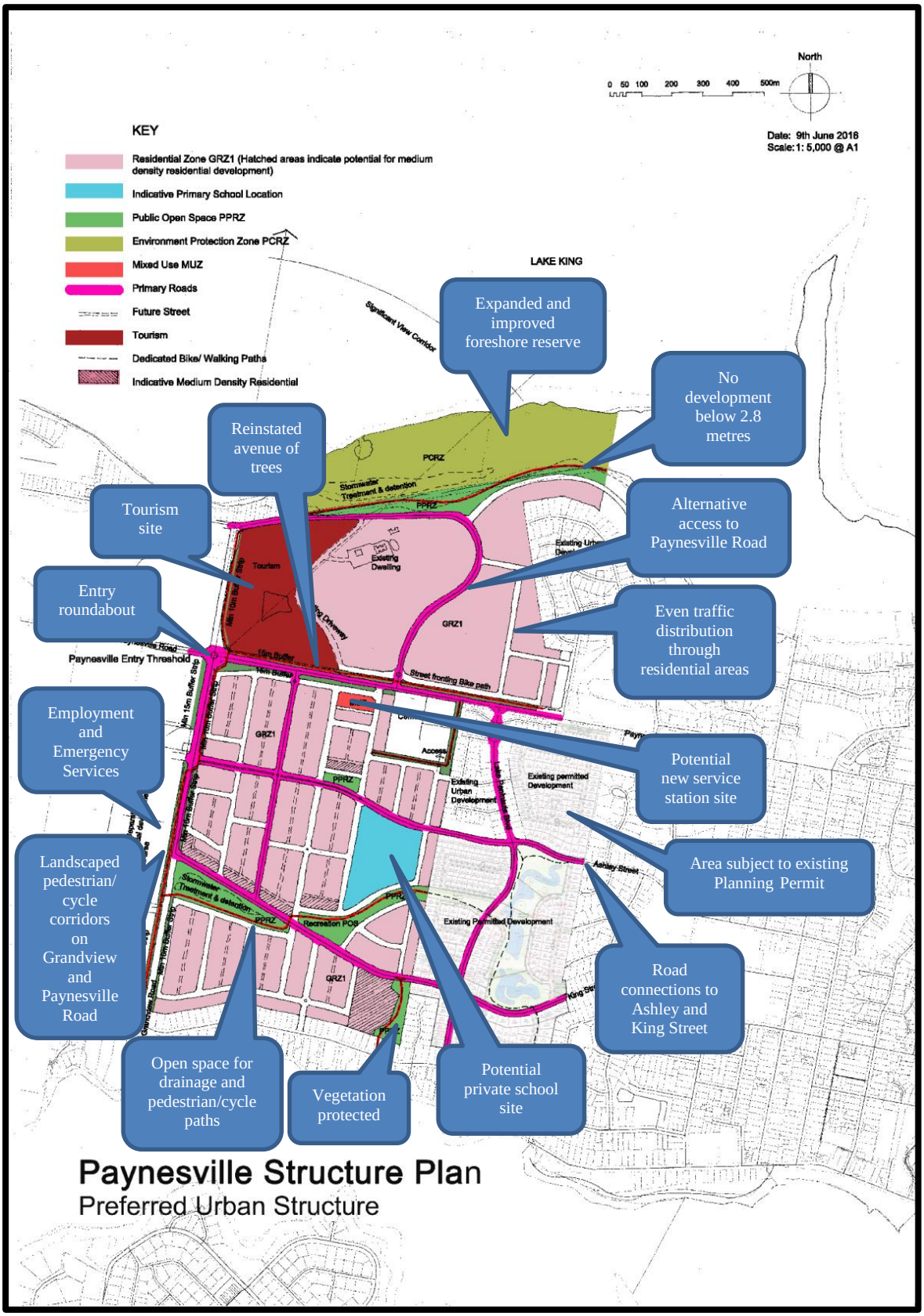


Figure 3: Annotated Preferred Urban Structure Plan



3. IMPLEMENTATION

3.1 Planning Objectives, Requirements and Guidelines

3.1.1 Town Character and Identity

OBJECTIVES	
O1	To establish a pattern of residential development across the growth area that supports good access, neighbourhood cohesion and reinforces local identity.
O2	To support a strong sense of place and local character that builds on Paynesville's existing character and sense of place.
O3	To create distinctive tree-lined streets environments that form a strong landscape setting for housing development.
O4	To establish native planted corridors in key locations that frame road corridors and major entry points, provide open space connections for cyclists and pedestrians and enhance the visual appearance of the built environment.
O5	To ensure the scale and location of land uses and activities support the preferred future character of Paynesville.
O6	To establish a town entry at Grandview Road that provides a distinctive visual transition into the town and maintains a vista to the Gippsland Lakes.
O7	To establish tree lined corridors along Paynesville and Grandview Road.
O8	To provide a walkable town with good connections and relationships with foreshore open space.

REQUIREMENTS	
R1	Development must provide a parkland townscape character with native tree corridors on arterial roads, generous, planted road verges on local streets and open space connections where water sensitive drainage is integrated with public access.
R2	Residential neighbourhoods must have convenient access to local open spaces and off-road pedestrian and cycle networks, linking to the town centre and foreshore areas.
R3	Street trees selected from a species list approved by the Council must be provided on both sides of all new roads and streets (excluding laneways).
R4	Trees (native, indigenous and exotic) in parks and streets must be: • Larger species wherever space allows • Suitable for local conditions and to minimise fire risk • Planted in modified and improved soil as required to support longevity
R5	Landscape corridors of minimum 15 metres width must be provided on Paynesville Road (both sides), Grandview Road (both sides) and Waterview Road (east side) and planted to establish avenues of large native trees between road intersections.
R6	The intersection of Paynesville Road and Grandview Road and surrounding development must designate a physical and visual threshold as a transition from a rural environment with views to Lake King into a spacious townscape with tree-lined streets.
R7	Native tree planting shall be implemented on the foreshore reserve and adjacent streets to soften the visual impact of development when viewed from Lake King while providing reasonable opportunities for view sharing from residential lots north of Paynesville Road and complying with bushfire management requirements.

R8	Development shall only proceed in accordance with a Cultural Heritage Management Plan prepared by proponents as part of a Development Plan to the satisfaction of the responsible authority.
R9	Development shall only proceed in accordance with a Native Vegetation Management Plan prepared by proponents as part of a Development Plan to the satisfaction of the responsible authority.

GUIDELINES	
G1	Street networks within subdivisions should be designed to maximise direct connections to surrounding areas and long distance views to the water.
G2	All residential lots should be within a 400 metre distance of a local or district open space area or foreshore reserve.
G3	Street trees should be planted as follows AVERAGE INTERVAL — TREE SIZE 8-10 metres — Small trees (less than 10 metre canopy) 10-12 metres — Medium trees (10-15 metre canopy) 12-15 metres — Large trees (canopy larger than 15 metres)
G4	Street trees and associated landscaping should be selected to provide consistent landscape themes to reinforce movement hierarchy and differentiated neighbourhood themes. Landscape designs should feature iconic local species consistent with the existing town character and surrounding landscape (e.g. red gums, paperbarks and similar species that reflect the Gippsland Plains and coastal vegetation species.
G5	A consistent suite of lighting and furniture should be used across individual subdivisions and the growth area appropriate to the type and role of the public space to the satisfaction of the responsible authority.
G7	Three-dimensional building envelopes should be described for residential lots on north-facing slopes north of Paynesville Road to demonstrate suitable management of building bulk and visual impact.
G8	Where landscape corridors are required to accommodate drainage features, such as detention basins, they may need to be wider than 15 metres to satisfy this purpose.

3.1.2 Urban Land Use

OBJECTIVES	
O1	To provide for a spacious residential character with a variety of lot sizes and housing types to meet community needs.
O2	To accommodate medium density residential development, aged care and retirement accommodation, a primary school and service station in appropriate locations.
O3	To support the development of visitor facilities and services that complement Paynesville's economic function and take advantage of land with proximity and access to the foreshores and wetlands of the Gippsland Lakes.
O4	To ensure that land use and development is located and designed to provide community benefits, minimise conflict and provide amenities and services to meet the future needs of the community.
O5	To provide the opportunity for high-quality tourism and eco-tourism facilities through the allocation of suitable land within a Comprehensive Development Zone, with guidelines for design, use and scale of facilities.

O6	To provide for different types of housing and a range of lot sizes and densities that will provide for diversity and greater choice in the future community.
O7	To ensure a suitable standard of design for residential and other land uses that meets contemporary standards for efficiency and sustainability.
O8	To accommodate work-from-home and non-residential land use for employment and local services.

REQUIREMENTS	
R1	Residential lots must be provided at approximately 8-10 dwellings per net hectare across the area of any Development Plan for residential subdivision.
R2	A range of residential lot sizes must be provided within each neighbourhood.
R3	Residential lots must be designed and oriented to: • Overlook public open space, if adjacent; • Provide a direct frontage to connector roads and local roads; • Provide for building setbacks and orientation to manage building bulk; • Maximise solar orientation to dwellings; and • Provide suitable land area and dimensions on lots north of Paynesville Road to accommodate dwellings that provide for reasonable view sharing from adjacent and nearby lots.
R4	Specialised housing forms such as retirement living or aged care must be: • Integrated into the wider urban structure by way of street and pedestrian connections; • Conveniently accessed by connector roads and bus routes.
R5	A primary school site must have direct frontage to three roads and provide direct access to off-road bicycle and pedestrian networks.
R6	Tourism development and/or visitor accommodation on the site shown as 'Comprehensive Development Zone – Tourism' must be subject to a comprehensive development plan outlining design criteria and demonstrating: • A scale and design of development to reflect the semi-rural lakeside setting; • Retention of views from surrounding public roads; • Native landscaping themes; and • Integration with public streets and walking/cycle paths.
R7	Development of the site shown as 'Mixed Use – Service Station' must be: • Primarily to provide automotive services and facilities; • Accessed from a service road setback from Paynesville Road by a minimum 15 metre landscape buffer; and • Separated and screened from surrounding residential development to prevent impacts on residential amenity.
R8	The 'Paynesville Employment and Emergency Services Precinct' must be developed in accordance with an overall Development Plan indicating desired land uses and overall subdivision design and: • Be located to the west of Grandview Road and set back from the road behind a 15 metre landscape buffer, developed to provide walking and cycling connections from Paynesville Road to Newlands Drive; • Provide for low impact, local non-retail service businesses not suitable for location in the Paynesville town centre; • Provide for an emergency services facility; • Be screened from Paynesville Road by suitable landscaping; and • Avoid environmental or amenity impacts in accordance with the requirements of the EPA.

GUIDELINES	
G1	Each residential subdivision stage should generally provide a range of lot sizes varying in size between 500-1000 square metres.
G2	Residential lots less than 500 square metres should be considered where adjacent open space or natural features provides an opportunity for more compact housing.
G3	Residential lots greater than 1000 square metres will be discouraged, but may be provided where it is demonstrated that a future subdivision of the lots and street construction can be achieved to provide direct street frontage without battle-axe lots.
G4	Land uses in the 'Employment and Emergency Services Precinct' should be limited to service industries, storage, vehicle maintenance and repair, emergency services facilities and business activities that do not compete with or detract from the retail and business services located in the Paynesville town centre.
G5	A new primary school site, if provided, should be a minimum of 4 hectares.

3.1.3 Movement Networks

OBJECTIVES	
O1	To provide a permeable and functional hierarchy of streets, roads and pathways with connections to existing and planned networks outside the Structure Plan boundary.
O2	To provide direct and safe access to the surrounding road network that connects residents within the growth area and to the existing town, with choice of vehicle movement in a low speed traffic environment.
O3	To promote a range of transport options including walking and cycling.
O4	To provide a legible and functional structure of blocks and streets that is easily navigated and also recognises existing land tenure.
O5	To provide off-road walking and cycling routes along Paynesville and Grandview Road in landscaped corridors.
O6	To ensure the movement network accommodates the diversity of transport modes and supports land use activities.
O7	To ensure the interface between the street and buildings supports pedestrian amenity and safety.
O8	To maximise pedestrian and cyclist safety, amenity and security.
O9	To accommodate bus routes that can be extended over time.
O10	To facilitate timely delivery of a road network and the upgrading of key intersections and external road connections.
O11	To minimise direct access to Paynesville Road.

REQUIREMENTS	
R1	Subdivision layouts must provide a permeable street network to provide a legible choice of access to residential areas and the town centre.
R2	Roads are to be provided and designed in accordance with the classification included in Table 1 and the cross-sections provided in Appendix 2.
R3	Connections to Paynesville Road must be minimised and located and designed to provide safe vehicle movement, without requiring loss of substantial roadside vegetation.
R4	The street network must be generally oriented on a north-south or east-west access to maximise solar orientation to lots and to maintain a consistent and legible street pattern.

R5	Streets must be designed to provide safe traffic movement at speeds consistent with the residential environment.
R6	Shared bicycle and pedestrian paths must be delivered consistent with the network shown on the Structure Plan.
R7	Intersections of local streets and connector roads with off-road bicycle/pedestrian paths must be designed to allow safe passage by bicycles and pedestrians with appropriate visual cues and signage.
R8	A road connection must be provided as an extension of Bay Road to the east and south to connect to Paynesville Road.
R9	Fullarton Drive must be extended to the west to provide a connection to the Bay Road extension, to provide a permeable road network and alternative means of access and egress
R10	A designated bus route must be provided through the street network both north and south of Paynesville Road.
R11	Pedestrian connections are to be provided within and between the street network to provide permeability.
R12	Where development adjoins public land in the form of foreshore reserves or local open spaces, a road interface is to be provided to avoid establishment of rear or side fences abutting those reserves.
R13	Shared bicycle and pedestrian paths are to be delivered to make connections through the growth area at the earliest opportunity.
R14	Land is to be transferred for off-road pedestrian/cycling corridors along Grandview, Waterview and Paynesville Roads and corner splays at Paynesville/Grandview Road at the earliest opportunity.
R15	Footpath connections will be provided to provide access for residents to the existing town footpath network.

GUIDELINES	
G1	Road connections should be provided to Paynesville Road, Grandview Road, Newlands Drive, King Street, Ashley Street, Fullarton Drive and Bay Road.
G2	Road connections to Paynesville Road should be located to avoid 4 way intersections.
G3	Street cross-sections should be designed in accordance with the diagrams in Appendix 2.
G4	Street block lengths should not exceed 240 metres to ensure a permeable and low speed environment for vehicles, pedestrians and bicycles.
G5	Cul-de-sacs should not prevent convenient pedestrian and vehicle connections.
G6	Lighting should be installed along shared pedestrian and cycle paths linking key destinations, unless otherwise approved by the responsible authority.
G7	Off-road cycling and pedestrian paths should be a minimum of 1.5 metres in width and constructed in accordance with the design requirements of the responsible authority.
G8	District cycling and walking connections should be provided adjacent to the alignment of Grandview/Waterview Roads to provide a continuous connection for pedestrians and cyclists to the walking paths and foreshores on Newlands Arm and Lake King.

Table 1: Street Classifications

Street Type	VPD	Target Speed	Verge width	Parking	Pedestrians/ Cyclists
Access Lane	300	10kmh	No verge	No parking	Shared zone
Access Place	300-1000	15kmh	4.5m both sides	One side	1.5m footpath one side Cyclists on road
Access Street	1000-3000	40kmh	4.5m both sides	Both sides	1.5m footpath one side Cyclists on road
Connector Street	3000-6000	50kmh	6.0m both sides	Both sides	2.5m shared path one side
Arterial Road	6000+	As required	4.5m one side 7.5m other side	As required	2.5m shared path one side

3.1.4 Foreshores and Wetlands

OBJECTIVES	
O1	To support the protection, management, enhancement and public enjoyment of natural foreshore areas as public open space.
O2	To protect the environmental values of the Gippsland Lakes and associated wetlands and fringing areas.
O3	To protect property and infrastructure from natural hazards such as bushfire, flood and inundation.
O4	To provide the opportunity for visitor accommodation and facilities in proximity to the wetlands and public foreshores.
O5	To provide for convenient public access to reserves and the provision of facilities suited to the natural foreshore environment, including interpretive facilities.
O6	To avoid the direct discharge of stormwater or pollutants into natural wetlands.
O7	To provide opportunities for revegetation and the creation of vegetated buffers to prevent wetland degradation and provide habitat.
O8	To integrate the urban growth area with adjoining and connected foreshore areas with appropriate connections and interfaces of private and public land.
O9	To reduce the visual impact of development when viewed from Lake King, whilst enabling the reasonable sharing of views from private property.
O10	To ensure the sustainable management of the foreshore and wetland environment.
O11	To provide for developer contributions to the improvement of open space and foreshore areas.
O12	To minimise disturbance of coastal acid sulfate soils and ensure that ensure that development complies with requirements for management of acid sulfate soils.

REQUIREMENTS	
R1	Residential lots shall only be created on land at or above 2.8 metres AHD. All land below 2.8m AHD must generally be included in the foreshore reserve.
R2	All land shown on the Structure Plan as foreshore reserve must be transferred to the Council at no cost to the Council and must be improved in accordance with an approved foreshore improvement plan to the satisfaction of the responsible authority.

R3	Residential lots within 500 metres of the Crown reserve must be designed and oriented to allow for siting of dwellings to minimise the visual impact of development, provide for reasonable sharing of views and for casual surveillance of public open space areas.
R4	Extensions of Fullarton Drive and Bay Road must be provided along the southern boundary of the enlarged foreshore reserve to provide, where practical, a road frontage to the reserve.
R5	Storm water detention basins must be integrated into the design of public open space and designed to prevent the direct discharge of storm water flows into waterways in accordance with best practice urban stormwater management.
R6	A new alignment for the walking/cycling path from Burden Place to Bay Road shall be defined generally in accordance with the Preferred Urban Structure plan to provide greater separation from the adjacent wetlands, to facilitate natural 'vegetation shift' over time, and to enable the future construction of a new path alignment.
R7	Development adjacent to existing and proposed foreshore reserves shall be in accordance with the objectives and requirements of any adopted Foreshore Management Plan.
R8	Development must comply with the requirements of Design and Development Overlay Schedule 14.
R9	Public playgrounds and other active recreation facilities (other than pedestrian and cycling paths) shall not be located in close proximity to wetlands on the foreshore reserve to avid disturbance to birdlife.

GUIDELINES	
G1	Residential lots directly abutting the foreshore reserve should be avoided.
G2	Development causing disturbance to low lying areas should meet the requirements of the Victorian Best Practice Guidelines for Assessing and Managing Coastal Acid Sulphate Soils (DSE, October 2010).
G3	New walking and cycling paths should be located within a buffer not less than50 metres from existing wetlands.
G4	Development of lots fronting the foreshore reserve (or a road adjacent to the foreshore reserve) should be restricted by three-dimensional building envelopes defining maximum height limits and side boundary setbacks to avoid continuous built form.

3.1.5 Public Open Space

OBJECTIVES	
O1	To provide a system of open space linkages in parklands that accommodate natural drainage patterns and existing native vegetation, and establish off-road pedestrian and cycling connections through the growth area and to surrounding foreshore paths.
O2	To ensure all users have convenient and safe access to and through public spaces To ensure comfortable and enjoyable public spaces.
O3	To establish neighbourhood and district open spaces suitable for local recreational activity.
O4	To ensure the public realm is able to be well-maintained and managed.
O5	To maximise the safety of public open spaces through informal surveillance of streets and public spaces from dwellings and streets.

O6	To provide a reasonable level of public facilities in local open space, suited to the function of the open space.
O6	To ensure the retention, protection and enhancement of environmental values in the foreshore reserve and wetlands.

REQUIREMENTS	
R1	Public open space must be provided: • To create conveniently accessible areas for passive recreation in each neighbourhood; • To create linear pedestrian and cycling links between neighbourhoods and foreshores; • To preserve or provide habitat, landscape values and significant stands of native vegetation; and • To supplement any existing vegetation and habitat corridors.
R2	Public open space must have direct access to a continuous road frontage on one side to provide for casual surveillance.
R3	Public open space must be of a size and location suitable to its purpose and developed in accordance with an approved Landscape Master Plan to include public facilities (including car parking, playgrounds, public amenities, shelter and shade) to properly serve that purpose.
R4	Land provided in public open space for the primary purpose of drainage shall not be included in any calculation of public open space allocation.
R5	Existing trees within open space areas shall be retained.

GUIDELINES	
G1	All public open space should be located, designed and developed in accordance with the description in Table 2. Water sensitive drainage functions may be integrated with the recreational use of the open space.
G2	Development plans for open space areas shall be prepared showing proposed access, park furniture and facilities, pathways and landscaping to the satisfaction of the responsible authority.
G3	Detention basins and associated drainage infrastructure should be incorporated into public open space provided that sufficient land is also allocated for recreational use.
G4	Public open spaces should be connected by off road paths where possible.
G5	All public open space must be designed and constructed to enable practical maintenance and planted with species suitable for the local climate and soil conditions.
G6	Open space should contain extensive tree planting to create local habitat, enhance neighbourhood identity and improve the visual appearance of surrounding development.
G7	Planted open space corridors should be provided on the entire length of Paynesville Road to Grandview Road, and the southern section of Grandview Road from its intersection with the King Street extension, within a minimum 15 metre landscaped setback. of the inclusion of some fire retarding species should be encouraged.
G8	Encumbered areas of reserves, required for purposes other than public recreation, will not be included in the calculation of open space provision.

Table 2: Open Space Types

Type	Function	Location	Facilities
Neighbourhood Park	Passive recreation	<400m of all lots	Seating, shelter, BBQ, playground
Linear Park	Local access, water management	Natural drainage lines	Cycle/walking paths
Foreshore Reserve	District access, environmental protection, water management	Land less than 2.8m AHD	Cycle/walking paths, revegetation areas, drainage basins, visitor facilities
Roadside trail	District access	Grandview Road/Waterview Road	Cycle/walking path
Landscape Corridor	Visual landscape, habitat, water management	Paynesville Road	Drainage basins
Landscape/ Cultural Protection	Preservation of landscape or cultural values	As required	Cycle/walking paths

3.1.6 Drainage and Water Management

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OBJECTIVES	
O1	To provide for infiltration and detention of surface water and reduce the "downstream" flow of floodwaters and nutrients in accordance with best practice water sensitive urban design.
O2	To integrate the design of drainage facilities with the design of roads, open space and public reserves.
O3	To adhere to water sensitive urban design principles in accordance with Council policy.
O4	To manage drainage at a sub-catchment level and ensure that stormwater detention and nutrient stripping requirements are met for each sub-catchment with an integrated stormwater design not limited to land ownership boundaries.
O5	To integrate drainage functions into open space areas and linear corridors, while maintaining their function as recreation spaces.

REQUIREMENTS	
R1	All drainage infrastructure shall be designed in accordance with an approved Precinct Infrastructure Plan to be prepared in conjunction with a Development Plan for the subject area.
R2	Drainage for all lots must be designed to minimise the volume and velocity of storm water flow and transport of nutrients into the Gippsland Lakes.
R3	Stormwater flows and quality must be managed through constructed detention basins and/or nutrient stripping measures to minimise flooding and nutrient export.

R4	Drainage corridors and detention basins must be integrated with the open space network to provide areas for passive recreation and pedestrian and cycle movement.
R5	Final design and boundaries of constructed waterways, waterway corridors and detention basins must be to the satisfaction of the responsible authority.
R6	Development staging must provide for the delivery of the ultimate waterway and drainage infrastructure, or demonstrate how any interim solution adequately manages flood protection and stormwater treatment.
R6	Drainage easements shall be created and/or land transferred to Council ownership where necessary to protect drainage functions, at no cost to Council.
R6	Section 173 Agreements and/or Notice of Restrictions shall include on-site water sensitive urban design requirements including water storage tanks, stormwater detention tanks and other on-site drainage retention and nutrient stripping mechanisms.

GUIDELINES	
G1	The design of roads, road reserves and open space should optimise water use efficiency and long term viability of vegetation through water sensitive urban design.
G2	Where practical, integrated water management systems should be used to maximise habitat values for local flora and fauna.

3.1.7 Infrastructure and Subdivision Works

OBJECTIVES	
O1	To ensure the provision of suitable infrastructure and utilities to efficiently service development.
O2	To ensure that local infrastructure is designed and constructed to assist in creating local character and reinforcing “sense of place”.
O3	To provide public infrastructure and utilities thatare durable and minimise maintenance costs while meeting user needs.
O4	To ensure the timely delivery of infrastructure to service successive stages of development.
O5	To provide for the equitable distribution of infrastructure costs between developers.

REQUIREMENTS	
R1	Subdivision of land within the structure plan area must provide and meet the total cost of delivering the following infrastructure: • All roads and streets other than arterial roads; • Local bus stop infrastructure (where locations have been agreed with Public Transport Victoria); • Landscaping of all future roads and local streets; • Intersection works and traffic management measures on all roads and streets (except those included in the DCP); • Council approved fencing, landscaping and drainage along arterial roads (except where included in the DCP); • Local shared pedestrian and bicycle paths along streets and roads, open space corridors and parks (except those included in the DCP);

	• Bicycle parking, street furniture, street and park lighting and open space improvements to the satisfaction of the responsible authority); • Infrastructure as required by utility service providers, including water, sewerage, electricity, gas, telecommunications and drainage (except where included in the DCP).
R2	All public open space (except where included in the DCP) must be developed in accordance with a Landscape Master Plan prepared by the applicant and approved by Council, finished to a standard acceptable to the Council prior to transfer, including: • Provision of landscaping, tree planting and drainage; • Provision of water supply; • Provision of vehicle exclusion devices, where required; • Installation of park furniture including barbecues, shelters, furniture, rubbish bins and play areas to the satisfaction of the responsible authority.
R3	All utility services are to be provided at the developers' cost and to the satisfaction of the relevant servicing authorities.
R4	Development staging must provide for the timely provision of connector streets and the off-road pedestrian/cycle network.
R5	Precinct Infrastructure Plans shall be prepared to accompany Development Plans indicating lot yields, staging and thresholds for delivery of local infrastructure.

GUIDELINES	
G1	Sewer pump stations, electricity substations, and other above ground infrastructure should be located out of view lines and have appropriate screening.
G2	Development staging should not occur in a way that residents are isolated from adjacent street networks, open spaces or the arterial road network.
G3	The design of all subdivision works, including roads, paths, drainage facilities and public open space should be undertaken to contribute positively to a distinctive local character and sense of place. Standardised infrastructure design should be avoided, unless it is demonstrated to be consistent with achieving aesthetic outcomes and contributing to neighbourhood character.
G4	Where infrastructure is not provided at the time of land release due to staging constraints, suitable arrangements should be made for the lodgement of bonds or bank guarantees to ensure the eventual provision of the infrastructure.
G5	Landscaping within road reserves and public open space should be subject to a two-year maintenance period during which the developer is responsible for the maintenance and/or replacement of landscaping to ensure long term viability.

3.2 STATUTORY IMPLEMENTATION

The Structure Plan shall be incorporated into the East Gippsland Shire Planning Scheme via Planning Scheme Amendment, as follows:

3.2.1 Amend the Municipal Strategic Statement

a) Replace the 'Paynesville Strategy Plan' in Clause 21.12-2 with an up-to-date plan reflecting the Paynesville Town Centre Structure Plan, Paynesville Maritime Precinct Master Plan, Paynesville Foreshore Management Plan and Paynesville Growth Area Structure Plan.

b) Amend Clause 21.12-2 under Paynesville Strategies to:

i. Remove 'Plan for expansion of the town westwards generally between Waratah Avenue and Grandview Road' and replace with 'Expansion of the town westwards should occur generally in accordance with the Paynesville Growth Area Structure Plan (2016).

ii. Remove 'Industry not reliant on access to water will be discouraged in the Industrial 3 Zone on Slip Road' and replace with 'Business activities not suitable for the town centre nor reliant on access to water will be encouraged to locate in the Paynesville Employment and Emergency Services Precinct on Grandview Road'.

iii. Remove 'Promote higher densities in relation to the redevelopment of existing areas, in particular within proximity of the town centre' and replace with 'Promote higher densities in proximity to areas of high amenity in particular the town centre, open space and recreational areas'.

iv. Remove 'Encourage development of a variety of tourist accommodation options within Paynesville, particularly in the town centre or close to the canals' and replace with 'Encourage development of a variety of tourist accommodation options within Paynesville, particularly in the town centre or on key sites close to the canals and Lakes foreshores'.

c) Amend Clause 21.12-2 under "Objectives" by deleting "To manage the expansion of the town boundary and new residential development to ensure a variety of housing types and styles and add to the special character of Paynesville" and replacing it with:

- "To implement the Paynesville Growth Area Structure Plan"; and
- "To recover the costs of public infrastructure required to service the growth area through a Development Contributions Plan, legal agreements and a Community Infrastructure Levy applied to land development";

d) Amend Clause 21.12-2 under Further Strategic Work - Paynesville to remove:

i. "Prepare a Structure Plan for the town centre that addresses built form, access and parking, and integration with the foreshore.

ii. Review the Master Plan for the maritime precinct in Slip Road.

iii. Investigate the possibility of allocating land to the south of the Paynesville cemetery, or in that vicinity, for clean, non-marine industrial uses and commercial uses servicing the local community.

iv. Work closely with landowners to develop Structure Plans for the extension of Paynesville within the Settlement Boundary, ensuring that the east-west separation between Paynesville and Eagle Point is appropriately managed to maintain the separate physical identity of the towns." and

v. "Ensure that measures are put in place to prevent adverse impacts of development on the native vegetation between Point Fullarton and Eagle Point."

e) Amend Clause 21.12-2 under Further Strategic Work - Paynesville to add:

i. Work with landowners to prepare Development Plans for landholdings within the Paynesville Growth Area Structure Plan in general conformity with the Structure Plan."

ii. Prepare an Environmental Management Plan for the areas of foreshore public reserve on the Lake King foreshore, including the Point Fullarton wetlands and adjoining areas; and

iii. 'Monitor the implementation of the Paynesville Structure Plan and review the plan every 5 years'.

f) Amend Clause 21.12-2 under Paynesville Reference Documents to include Paynesville Growth Area Structure Plan (2016) and Appendices.

3.2.2 Rezone Land Affected by the Structure Plan

a) Rezone all land affected by the Structure Plan, with exception of land identified as 'Employment and Emergency Services', and 'Tourism' to General Residential Zone, thereby applying Clause 32.08 of the Planning Scheme.

b) Rezone the land shown on the Preferred Urban Structure Plan as 'Tourism' to Comprehensive Development Zone and include a Schedule outlining the purpose and design objectives applicable to the land.

c) Rezone land shown on the Preferred Urban Structure Plan as 'Employment and Emergency Services' to Special Use Zone and include a Schedule outlining the purpose and design objectives applicable to the land.

d) Rezone the area shown on the Preferred Urban Structure Plan as 'Foreshore Reserve' (generally north of Bay Road) as Public Conservation and Recreation Zone, upon transfer of the land to Council.

3.2.3 Remove the Significant Landscape Overlay

a) Remove the SLO affecting land within the Structure Plan area.

3.2.4 Apply a DPO and Schedule for Residential areas

a) Apply Development Plan Overlay (DPO) to land affected by the Paynesville Growth Area Structure Plan.

b) The DPO Schedule - Paynesville Growth Area should include the following requirements for the preparation of the Development Plan:

   i. A Development Plan may be prepared as a whole for the land to which the schedule applies, or in parts with the consent of the responsible authority.

   ii. Unless otherwise directed by the responsible authority the Development Plan must contain all necessary details to demonstrate conformity with the Paynesville Growth Area Structure Plan.

3.2.5 Apply a DPO for Employment and Emergency Services Precinct

a) Apply Development Plan Overlay for the land shown as 'Employment and Emergency Services Precinct', including the following requirements for preparation of the Development Plan:
   i. Table of uses
   ii. Lot sizes
   iii. Setbacks
   iv. Building envelopes and design criteria
   v. Road standards
   vi. Landscaping

3.2.6 Apply a DDO and Schedule

a) Apply Design and Development Overlay (DDO) to land affected and identified in the Paynesville Growth Area Structure Plan as 'Residential'. The DDO Schedule should be consistent with DDO11, currently applying to Residential land in Paynesville, with specific requirements to implement the objectives of the Structure Plan in relation to lot layout and the development of housing forms that meet the objectives and requirements of the Structure Plan.

3.3 DEVELOPMENT CONTRIBUTIONS

Land included within the Paynesville Growth Area Structure Plan, including land zoned General Residential 2 for which any future planning application is sought, will be subject to the requirements of a Development Contributions Plan (DCP).

The DCP is intended to provide a fair and transparent mechanism for attributing and recovering costs for land transfer and infrastructure affecting more than one land holding, where this is required to implement the structure plan.

The DCP sets the requirements for infrastructure funding across the growth area where the infrastructure requires co-contribution by more than one landowner.

This includes:

- Land requirements for landscape corridors and the foreshore reserve;
- Contributions towards initial vegetation of roadside corridors;
- Truncations and land transfers for future development of the Paynesville Road/Grandview Road intersection;
- Upgrading of the northern section of Grandview Road, from the Ashley Street extension to Paynesville Road;
- Provision of pedestrian/cycle connections through the growth area;
- A Community Infrastructure Levy of $900 per lot.

The DCP will be a separate document incorporated into the East Gippsland Planning Scheme.

Contributions relating to community infrastructure are covered by a Community Infrastructure Levy (CIL) which is a capped levy of $900 per dwelling, maximum. These funds contribute to facilities such as libraries, youth services and sports facilities.

The Social Impact Assessment determined that there are some site specific community infrastructure needs identified within the assessment such as passive open space and playgrounds, but the key issue with this development is the need to provide linkages to existing local schools, children's services, social and medical support, community meeting facilities, retail and sporting options.

For the purposes of allocating costs of land exchange to facilitate the PGASP, the area of net developable land area (NDA) is determined by deducting the land requirements for major roads, servicing, drainage and open space from the overall growth area.

The East Gippsland Planning Scheme indicates an aim of achieving 12 dwellings per hectare of NDA. Community expectations are for a more spacious residential environment with a variety of lot sizes and housing types. The need for minimum densities to be achieved is far less important in this particular urban growth environment, and a target of 8-10 dwellings per hectare of NDA is regarded as more practical, desirable and consistent with community expectations.

3.4 OTHER IMPLEMENTATION

In addition to statutory implementation through Planning Scheme Amendments, the implementation of the PGASP will be facilitated through a range of other processes.

This section outlines those implementation mechanisms.

3.4.1 Creation of Landscape Corridors and Public Reserves

Agreements and arrangements will be required for the delivery of land for key landscape corridors and the expanded foreshore reserve at early stages of development and for landscape implementation.

Early delivery of landscaped corridors along the major roads and on some areas of the foreshore reserve will provide an important element of the vision for a good pedestrian/cycle network and the overall character of the area.

The Development Plan Overlay should a requirement for legal agreements be established for transfer of land and financial contributions to landscape corridors as early as possible in the development process, either upon:

- issue of the first subdivision permit;
- lodgement of a Development Plan for approval; or
- transfer of land to another party.

Land transfers and the equalisation of costs will be calculated on net loss/gain for each landholding against a combined total open space and landscape corridor allocation.

A cost will be estimated for initial planting and apportioned between landowners.

3.4.2 Precinct Infrastructure Plans

Design and delivery of local infrastructure within subdivision stages is to be set out in Precinct Infrastructure Plans prepared in consultation with relevant Council staff and demonstrating general conformity with this Structure Plan. These are to be preared at the Development Plan stage.

Precinct Infrastructure Plans are required to provide the design of road, drainage, open space and utility services to support each stage of subdivision and integrate with surrounding development.

3.4.3 Community Services Planning and Budgeting

Mechanisms can be adopted for Council to plan future maintenance, capital works and facilities upgrades based on development timing.

As the urban area of Paynesville grows, Council will need to invest in future maintenance of local roads, drainage, open spaces and foreshore reserves and provide increased services for a larger town.

A Community Infrastructure Levy of $900 per lot can be collected for the increase in community services demand and it may be appropriate for Council to plan and

budget for future public investment as certain lot thresholds are reached, so that the community infrastructure improvements identified in the Social Impact Assessment can be delivered at the right time.

In this way, a reserve of funds can be established to contribute to upgrading or expansion of existing community facilities at trigger points for population growth and increased demand.

3.4.4 Foreshore Improvements and Management

The Lake King foreshore and Point Fullarton wetlands provide a unique opportunity for landscape scale environmental rehabilitation, revegetation and management on a site that is able to support ecological values, passive recreation and eco-tourism opportunities. There are substantial benefits to be gained for the environment, the local community and visitors in undertaking a major foreshore wetland conservation and interpretation project on the expanded public foreshore areas.

The entire public foreshore area including the Point Fullarton wetlands and adjoining public areas requires an Environmental Management Plan, outlining measures for conservation, access and interpretation.

Such a plan needs to be developed in conjunction with responsible agencies with the objective of conserving and showcasing the Gippsland Lakes' ecological values in this significant site and putting suitable future management arrangements in place.

Such a project could be undertaken in conjunction with Department of Environment, Land, Water and Planning, Parks Victoria, East Gippsland Catchment Management Authority, Greening Australia and Landcare and could potentially attract State or Commonwealth funding.

3.4.5 Preparation of Development Plans

As landowners seek to subdivide and develop individual land parcels, the preparation of the Development Plan as required to implement this Structure Plan will require consultation with the Council, service providers and, where appropriate, the local community.

Development Plans are the mechanism for the detailed design of subdivision layout, lot size and orientation, building envelopes, street design, public open space and drainage infrastructure, landscaping treatments and public facilities.

Development Plans should be prepared in an open public process where possible to provide an opportunity for the community to provide input and ensure that community expectations for implementation of the structure plan are considered.

4. APPENDICES

4.1 Traffic Impact Assessment Report

4.2 Social Impact Assessment Report

4.3 High Level Hydrological Analysis

4.4 Background Papers

4.4.1 Issues and Responses Paper

4.4.2 Consultation Report

TRAFFIC ASSESSMENT REPORT

PAYNESVILLE PRECINCT STRUCTURE PLAN

SALT 3

TRAFFIC ASSESSMENT REPORT PAYNESVILLE PRECINCT STRUCTURE PLAN

Client: East Gippsland Shire

Report Reference: 15001

File Path: Y:\2015\15001 Paynesville Precinct Plan\Reports\15001REP02F01 – Paynesville.docx

Tuesday, July 26 2016

Document Control

Version	Position	Prepared By	Date	Reviewed By	Position	Date
D03	Senior Engineer	Chris Hamond	19/07/2016	James Brownlie	Director	19/07/2016
D04	Senior Engineer	Chris Hamond	20/07/2016			
F01	Senior Engineer	Chris Hamond	26/07/2016	James Brownlie	Director	26/07/2016

EAST GIPPSLAND
39 Williams Parade, Bairnsdale VIC 3875
+61 3 5152 7422

MELBOURNE
3/289 Wellington Parade South, East Melbourne VIC 3002
+61 3 9633 1900

www.salt3.com.au

TRAFFIC ENGINEERS / TRANSPORT PLANNERS / ROAD SAFETY AUDITORS

EXECUTIVE SUMMARY

SALT has been engaged by the East Gippsland Shire Council to prepare a traffic assessment report to support the preparation of the precinct structure plan for the Paynesville growth area.

The plan has been prepared to provide an assessment of the future traffic likely to be generated by development of the Paynesville growth area, along with the development of road categories and cross sections that can be used to develop the future road networks.

Preparation of this report has involved:

- Reviewing existing conditions and background information for Paynesville and the surrounding area including undertaking traffic counts throughout the Paynesville and Eagle Point areas.
- Reviewing existing conditions with Clause 56 of the Planning Scheme and the Infrastructure Design manual in order to determine road categories and cross sections that will support and ensure appropriate traffic distribution within the surrounding area.
- Calculation of the anticipated traffic volumes that are likely to be generated by the growth area along with distributions of these volumes.
- Specifying what categories roads should be classed as based on the calculated traffic that they are estimated to carry in the future.
- Assessment of any impact and possible mitigation options generated by the development of the growth area.
- Preparation of concept layout designs for proposed street and intersection upgrades.
- Costing analysis for future upgrades.

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SALT³

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1 INTRODUCTION

SALT have been engaged by the East Gippsland Shire Council to prepare a traffic impact assessment report of the Paynesville Precinct Structure plan for the future development of the Paynesville growth area.

Figure 1 shows the location of the Paynesville growth area to which the precinct structure plan will apply as well as the adjacent Eagle Point growth area for which a separate structure plan will be prepared.

During the preparation of this report, the subject area has been inspected with traffic surveys undertaken of existing intersections and roads within this area.

2 BACKGROUND

2.1 LOCATION

Paynesville is situated within the East Gippsland region in the eastern part of rural Victoria.

Figure 2 adjacent shows the location of Paynesville relative to Melbourne and the wider surrounding area.

2.2 EXISTING CONDITIONS

Paynesville, and neighbouring Eagle Point, are both coastal communities situated on the edges of Lake King and Lake Victoria.

ABS Census data indicates that as of the 2011 census, Paynesville had a population of 3236 people whilst Eagle Point has a population of 739 people.

Both Paynesville and Eagle Point are tourist/holiday towns and therefore experience a greater influx of visitors/temporary residents during holiday periods than they do for the remainder of the year.

Figure 1 Growth Area Boundaries

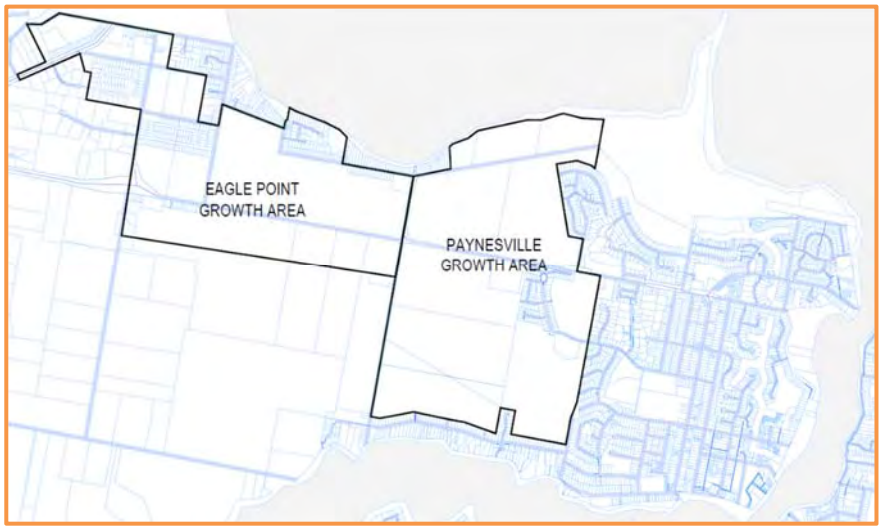


Figure 2 Site Location

2.3 SUSTAINABLE TRANSPORT

2.3.1 Bicycle

Bicycles are an excellent form of transport. They have almost no impact on the environment, produce no greenhouse gases, make no noise and consume no fossil fuels. Cycling is also good for people's health and fitness and is an enjoyable pastime.

Cycling is therefore an important component of a sustainable and integrated transport system and is a practical alternative to motor travel for many trips.

The existing road network provides a wide range of sealed roads which will allow cycling to be used as a practical means of transport around the area.

Analysis of CrashStats data for the area shows that in the past 5 years from 2011 – 2016 there have been no casualty accidents involving cyclists.

2.3.2 Walking

Walking is a fundamental and direct means of access to most places and to goods and services. It is an ecologically sustainable form of transport and can have sustainable health benefits.

Currently, given the rural nature of the subject area, walking is not an overly practical means of transport typically due to the distances between destinations and the lack of footpaths along the sides of outer rural roads.

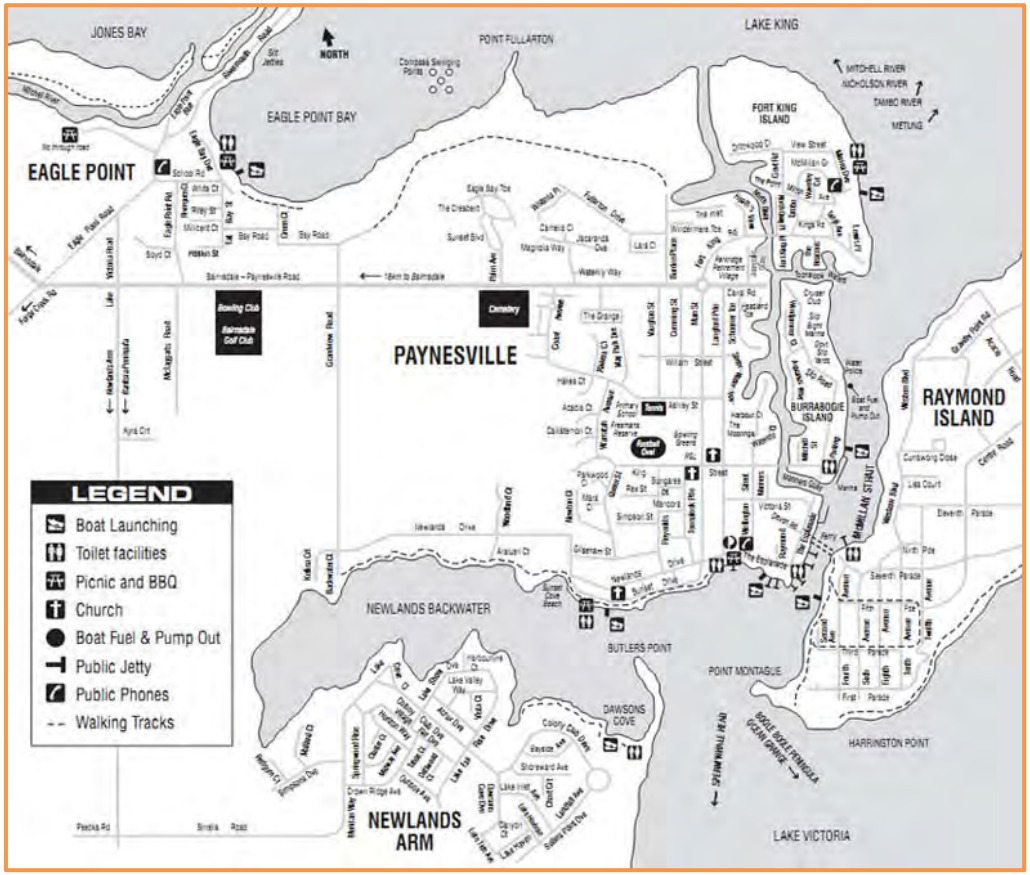
Provision of footpaths along existing streets would in the future encourage walking as a mode of transport when distances will allow it to be practical.

Figure 3 which has been taken from the 'Visit Paynesville' tourist information website, shows the location of a number of walking trails around the Paynesville and Eagle Point area.

Analysis of CrashStats data for the area shows that in the past 5 years from 2011 – 2016 there have been only 2 incidences of pedestrian accidents.

Review of these incidents indicate that only 1 case involved a vehicle, anecdotally it is considered that the other case was likely a trip and fall. Furthermore, in both cases the pedestrian involved was aged over 80.

Figure 3 Walking Paths



2.3.3 Public Transport

Due to the nature of both Paynesville and Eagle Point being rural, holiday communities, access to public transport is not as readily available as in larger, metropolitan areas.

Regardless, of this, a public bus route exists running between Paynesville and the larger town of Bairnsdale, approximately 15km north of the subject area.

The bus service operates a flexible route that runs from the Bairnsdale Train Station to the Paynesville Ferry Terminal. On request it can stop at the Bairnsdale Hospital, or at the nearest practical point to any address in Eagle Point, Paynesville and Bairnsdale.

Figure 4 provides a summary of the Paynesville – Bairnsdale bus route through Eagle Point and Paynesville and shows the location of the set stops for the bus route.

A typical timetable for the bus service is as follows:

Monday to Friday:

Leaves Paynesville – 9.15am, 11.15am, 1.45pm, 5.15pm.

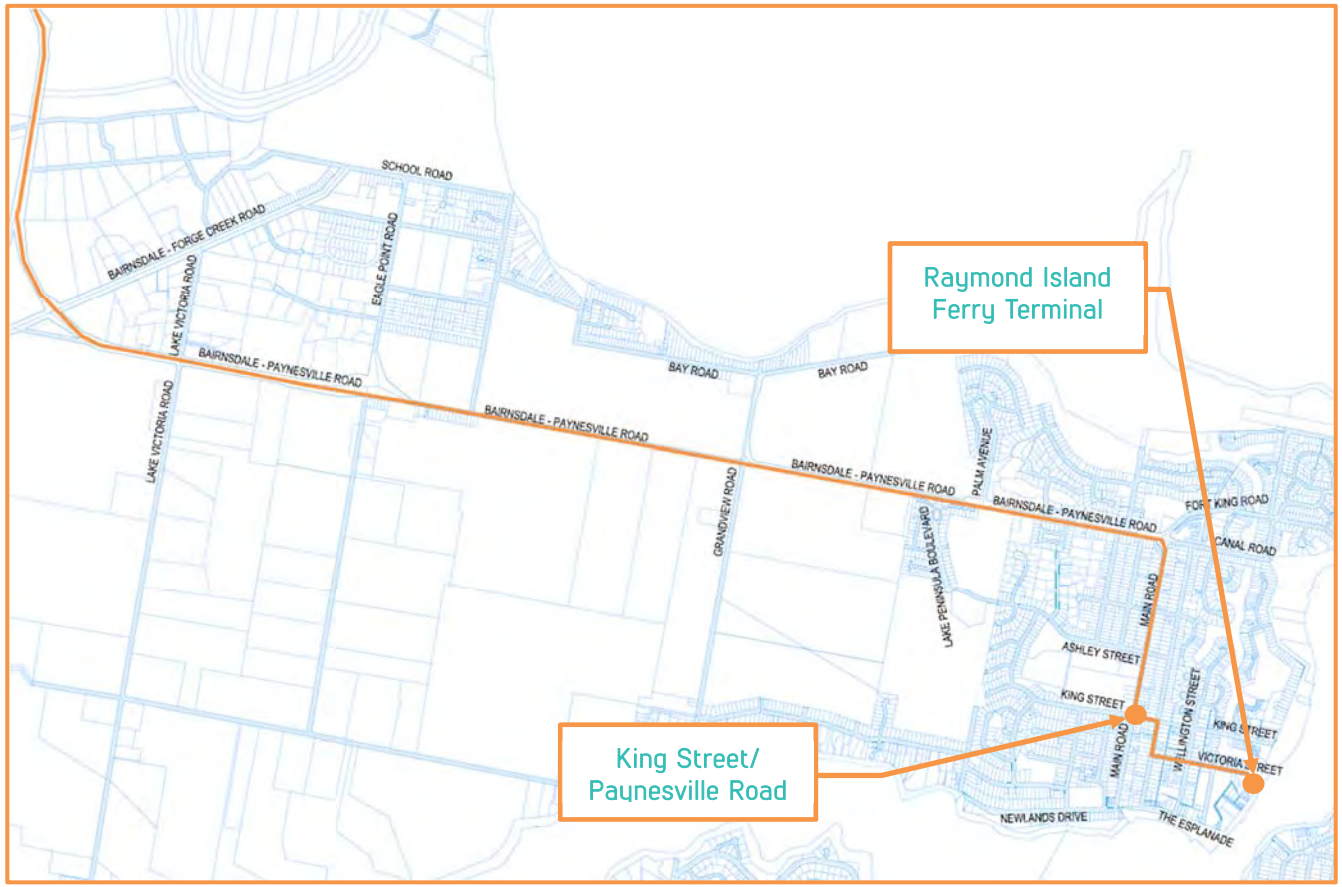
Leaves Bairnsdale – 10.15am, 12.15pm, 2.35pm, 4.35pm, 5.45pm.

Saturday:

Leaves Paynesville – 9.30am

Leaves Bairnsdale – 11.30am

Figure 4 Paynesville Bus Route



3 ROAD CLASSIFICATIONS

Clause 56.06 of the East Gippsland Planning Scheme, as well as the Infrastructure Design Manual (IDM), provide a list of classifications for streets and roads based upon the dimensions and layout of the street/road as well as the traffic volumes accommodated on a daily basis.

Table 1 lists the road categories as outlined within version 4.4.2 of the IDM (October 2015). Table 2 provides the road forms and classification requirements as outlined within Clause 56.06 of the Planning Scheme.

Typically the road forms and characteristics outlined in both the Planning Scheme and IDM coincide, however there are a few differences between the 2 manuals.

The classifications outlined within the Planning Scheme typically provide a wider range of categories into which a road can be classified than the IDM and also provide more options to be reviewed when classifying a road.

In discussion with the project team, including council officers, preferred classifications of roads for the Paynesville Growth Areas Structure Plan have typically been taken from the categories listed in the Planning Scheme over those listed in the IDM due to the wider variety of categories available and also to match existing street forms.

Table 1 IDM Road Classifications (Version 4.4.2)

Road Type	Traffic Volume	Carriageway Width	Parking	Verge	Footpath / Cycle Path
Access Lane	300vpd	5.5m	Yes One side	No	Carriageway acts as a Shared Zone
Access Place	300vpd	6.0m	Yes One side	3.5m	Footpath both sides No separate cycle provision
Access Street	1000vpd – 2500vpd	7.3m	Yes Both sides	3.5m	Footpath both sides No separate cycle provision
Connector Street Level 1	2500vpd – 6000vpd	11.6m	Yes Both sides	6.0m	Shared path both sides
Connector Street Level 2	6000vpd – 12000vpd	2 x 7.0m + 6.0m median	Yes Both Sides	6.0m	Footpath both sides Shared path both sides

Table 2 Clause 56.06 Road Classifications

Road Type	Traffic Volume	Target Speed	Carriageway Width	Parking	Verge	Footpath / Cycle Path
Access Lane	300vpd	10km/h	5.5m	No	No	Shared Zone
Access Place	300- 1000vpd	15km/h	5.5m	1 per 2 lots or parking 1 side only	7.5m min	1.5m one side
Access Street Level 1	1000 - 2000vpd	30km/h	5.5m		4m per side	1.5m footpath both sides. Shared cycle path with carriageway
Access Street Level 2	2000-3000vpd	40km/h	7m - 7.5m	both sides	4.5m per side	1.5m footpath both sides. Shared cycle path with carriageway
Connector Street Level 1	3000vpd	50km/h	3.5 - 4.0 each way plus 0.7 to 1.5 for cycling	dedicated parking lane	4.5m per side	1.5m footpath both sides. Dedicated cycle lane on carriageway
Connector Street Level 2	3000 - 7000 vpd	60km/h	3.5 - 4.0 each way plus 0.7 to 1.5 for cycling		6.0m per side plus centre median	1.5m footpath both sides and 1.7m wide cycle lane on carriageway or 2.5m wide shared ped/cycle path both sides
Arterial Road	7000+ vpd	As required	As required	As required	As required	As required

4 EXISTING ROAD NETWORK

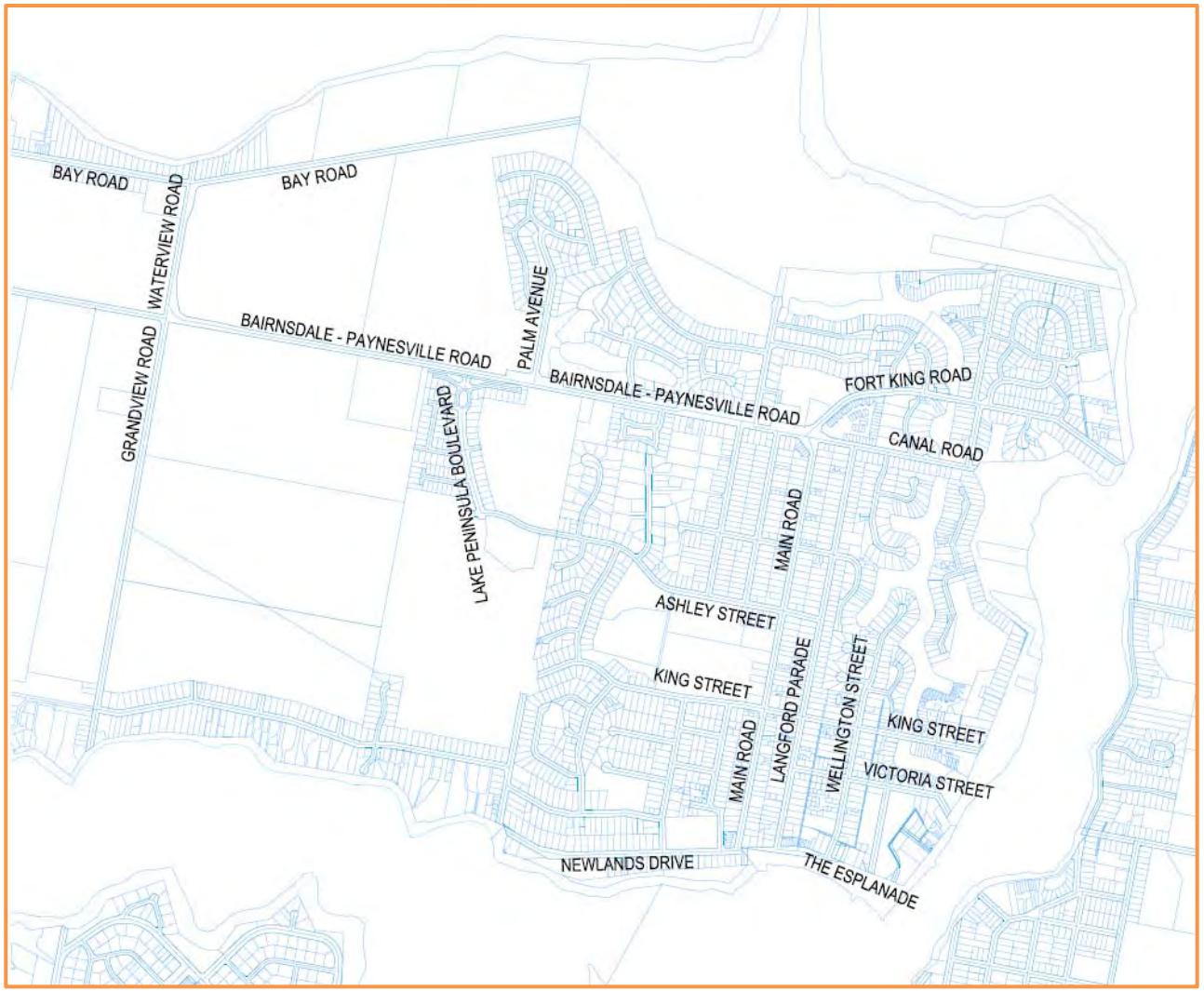
Site inspections have been undertaken in Paynesville and the wider surrounding areas. These inspections included reviewing the existing roads within the street network surrounding the subject area.

Figure 5 shows the names of the main roads within the inspection area.

During these inspections observations were made regarding the layout and set out of the surrounding roads as well as their speed limits.

Based on these observations the roads have been classified in accordance with the specifications as set out within Clause 56.06 of the Planning Scheme.

Figure 5 Street Network



Paynesville Road

Classification: Arterial Road

Paynesville Road is the main road providing access to both Eagle Point and Paynesville and the surrounding areas. It typically accommodates a two-way carriageway of approximately 11.0 metres width within a reserve width of 20 – 40 metres. Each side of the carriageway typically comprises a single travel lane with sealed shoulders.

The speed limit along Paynesville Road varies between 80km/h at the western end and 60km/h nearer to Paynesville.

Figure 6 below shows the typical configuration of Paynesville Road.

Figure 6 Paynesville Road Facing East

Grandview Road

Classification: Access Street Level 1

Grandview Road is a local access road and accommodates a two-way carriageway of approximately 7.9 metres width. Each side of the road comprises a single travel lane with gravel shoulders. It has a posted speed limit of 60km/h.

Figure 7 below shows the typical configuration of Grandview Road.

Figure 7 Grandview Road Facing North

Bay Road

Classification: Connector Street Level 2

Bay Road is a local access road providing access to a number of residential dwellings. It accommodates a two-way carriageway of approximately 10.4 metres width. Each side of the carriageway comprises a single travel lane, with the southern side also including a sealed shoulder allowing for kerbside parking. It has a posted speed limit of 60km/h.

Figure 8 below shows the typical configuration of Bay Road.

Figure 8 Bay Road Facing East

Lake Peninsula Boulevard

Classification: Access Street Level 2

Lake Peninsula Boulevard is a local access road with a carriageway approximately 8.1 metres wide.

The carriageway is un-line-marked and allows for a single travel lane in each direction. Kerb and channel is provided along the outer edge of each side of the carriageway. It has a speed limit of 50 km/h.

Figure 9 below shows the typical configuration of Lake Peninsula Boulevard.

Figure 9 Lake Peninsula Boulevard Facing South

Palm Avenue

Classification: Access Street Level 2

Palm Avenue is a local access road that accommodates a two-way sealed carriageway of approximately 7.3 metres width. Each side of the carriageway comprises a single travel lane with an unsealed shoulder.

Palm Avenue has a speed limit of 50km/h.

Figure 10 below shows the typical configuration of Palm Avenue.

Figure 10 Palm Avenue Facing North

Main Road

Classification: Connector Street Level 2

Main Road is the primary road leading to the Paynesville Town Centre joining with Paynesville Road via the provision of a round-a-bout at its northern end. It accommodates a carriageway of approximately 11.6 metres width.

Each side of the carriageway comprises a single travel lane, with an outer paved shoulder with kerb and channel. Kerbside parking is permitted along the paved shoulder in both directions.

Main Road has a posted speed limit of 60km/h.

Figure 11 below shows the typical configuration of Main Road.

Figure 11 Main Road Facing North

Fort King Road

Classification: Connector Street Level 1

Fort King Road is a local access road that provides the only point of connection between the residential dwellings on Fort King Island and the rest of Paynesville.

It accommodates a carriageway of approximately 11.6 metres width that comprises kerb and channel on the northern side and a gravel shoulder on its southern side.

It has a speed limit of 50km/h.

Figure 12 below shows the typical configuration of Fort King Road.

Figure 12 Fort King Road Facing North-East

Canal Road

Classification: Access Street Level 2

Canal Road is a local access road primarily providing access to surrounding residential dwellings and the Parkridge Retirement Village.

It accommodates a two-way carriageway of approximately 8.6 metres width, with kerb and channel provided on both sides of the carriageway.

It has a speed limit of 50km/h.

Figure 13 below shows the typical configuration of Canal Road.

Figure 13 Canal Road Facing East

Ashley Street

Classification: Access Street Level 2

Ashley Street is a local access road that accommodates a two-way carriageway of approximately 8.0 metres width.

Kerb and channel is provided along both sides of the carriageway and it has a posted speed limit of 50km/h apart from where school zones reduce the speed to 40km/h typically 8AM-9:30AM and 3PM-4:30PM School days.

Figure 14 below shows the typical configuration of Ashley Street.

Figure 14 Ashley Street Facing East

King Street

Classification: Connector Street Level 2

King Street is a local access road that provides the only form of connection for vehicles accessing Burrabogie Island on the eastern side of Paynesville.

King Street on the eastern side of Main Road accommodates a two-way carriageway of approximately 11.3 metres width. Each side of the carriageway comprises a single line-marked travel lane with a sealed outer shoulder with kerb and channel.

On the western side of Main Road, King Street accommodates a carriageway of approximately 8.1 metres width. The carriageway is un-line-marked but will allow for two-way traffic flow. Kerb and channel is provided along the outer edge of both sides of the carriageway. King Street has a posted speed limit of 50km/h.

Figure 15 below shows the typical configuration of King Street.

Figure 15 King Street Facing East

Newlands Drive

Classification: Access Street Level 2

Newlands Drive primarily functions as a local access road providing a connection to the Paynesville Town centre from the west. It accommodates a carriageway of approximately 9.9 metres width.

Each side of the carriageway comprises a single travel lane with a paved shoulder including kerb and channel where Kerbside parking is permitted.

It has a posted speed limit of 60km/h.

Figure 16 below shows the typical configuration of Newlands Drive.

Figure 16 Newlands Drive Facing East

The Esplanade

Classification: Connector Street Level 2

The Esplanade runs along the foreshore of the adjacent lake and provides access to the majority of the Paynesville retail tenancies.

It accommodates a sealed, two-way carriageway of approximately 11.8 metres width. Each side of the carriageway comprises a single travel lane with sealed shoulders and kerb and channel.

It has a posted speed limit of 50km/h which reduces to 40km/h towards the western end.

Figure 17 below shows the typical configuration of The Esplanade.

Figure 17 The Esplanade Facing East

Victoria Street

Classification: Connector Street Level 2

Victoria Street is a local residential street that includes parkland on its southern side and residential dwellings on the northern side.

It accommodates a sealed carriageway of approximately 8.6 metres width. Each side of the carriageway comprises a single travel lane with a sealed shoulder and kerb and channel. Kerbside parking is permitted along both sides of the carriageway.

It has a posted speed limit of 60km/h which reduces to 40km/h towards the eastern end.

Figure 18 shows the typical configuration of Victoria Street.

Figure 18 Victoria Street Facing East

5 EXISTING TRAFFIC CONDITIONS

5.1 TRAFFIC VOLUMES

In order to determine the existing traffic conditions within the study area, turning movement surveys were undertaken at fifteen (15) intersections including 4 intersections in Eagle Point and 11 intersections in Paynesville on Friday 23 January 2015 between 7:00am – 10:00am and 3:30pm – 6:30pm.

The surveys recorded the individual vehicle movements for all approaches at the intersection during 15 minute intervals.

The intersections surveyed in Paynesville are detailed as follows and the locations of the surveys are shown in Figure 19.

Paynesville Survey Locations

5. Paynesville Road/ Grandview Road
6. Grandview Road/ Bay Road
7. Paynesville Road/ Lake Peninsula Boulevard
8. Paynesville Road/ Palm Avenue
9. Main Road/ Fort King Road/ Canal Road
10. Main Road/ Ashley Street
11. Main Road/ King Street
12. Main Road / Newlands Drive
13. Wellington Street/ The Esplanade
14. Wellington Street/ Victoria Street
15. Wellington Street/ King Street

Figure 19 Turning Movement Survey Locations

The overall network AM and PM peak hours were determined by calculating the hour with the most movements through all intersections. Accordingly the AM peak hour was deemed to occur between 8:30am–9:30am while the PM peak hour occurred between 4:00pm – 5:00pm.

The AM and PM peak hour traffic volumes and distributions for Paynesville are shown in Table 11 and Table 12 in APPENDIX 1 with the distributions shown in Figure 20 to Figure 23 following.

Figure 20 Paynesville AM Peak Hour Traffic Volumes

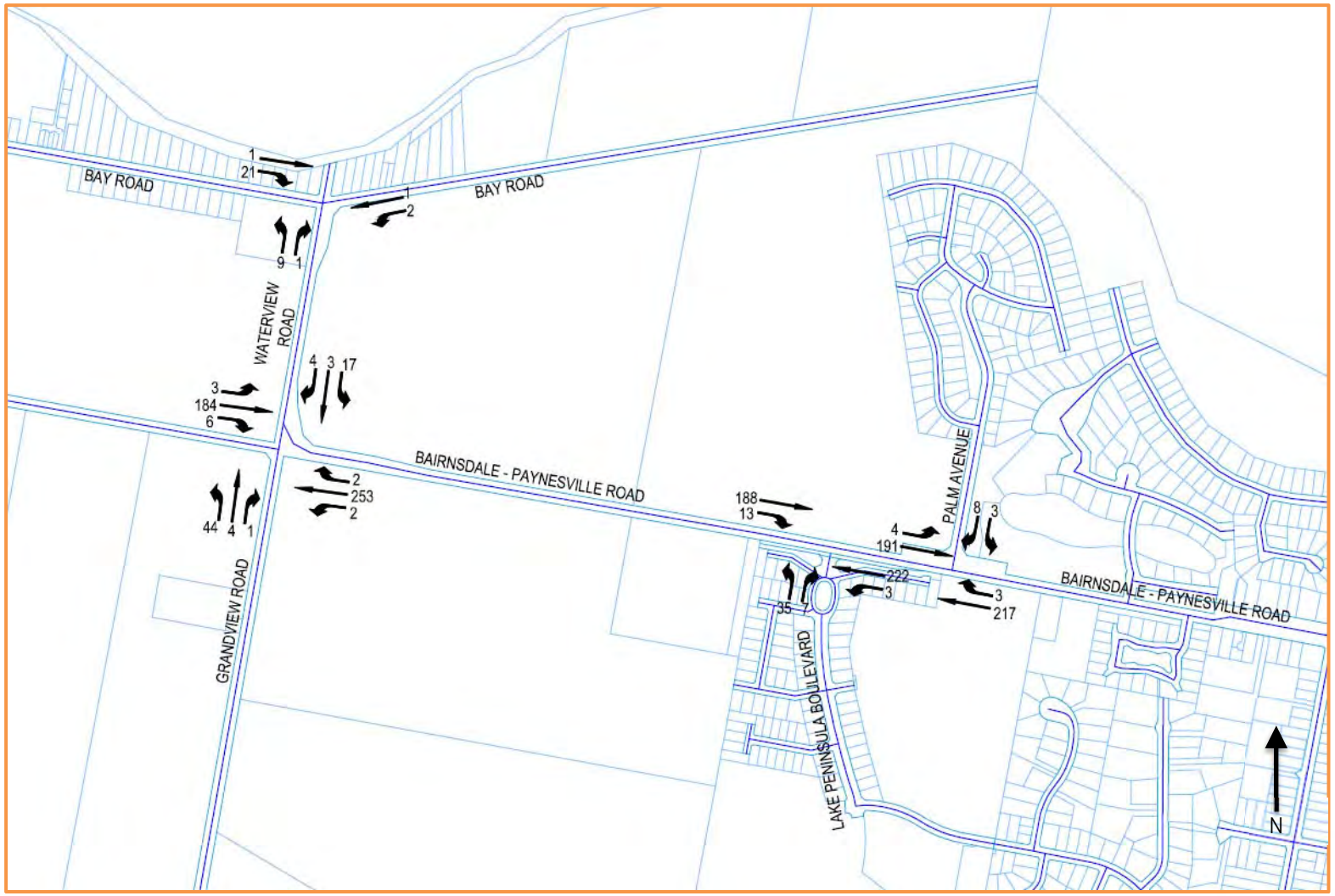


Figure 21 Paynesville AM Peak Hour Traffic Volumes

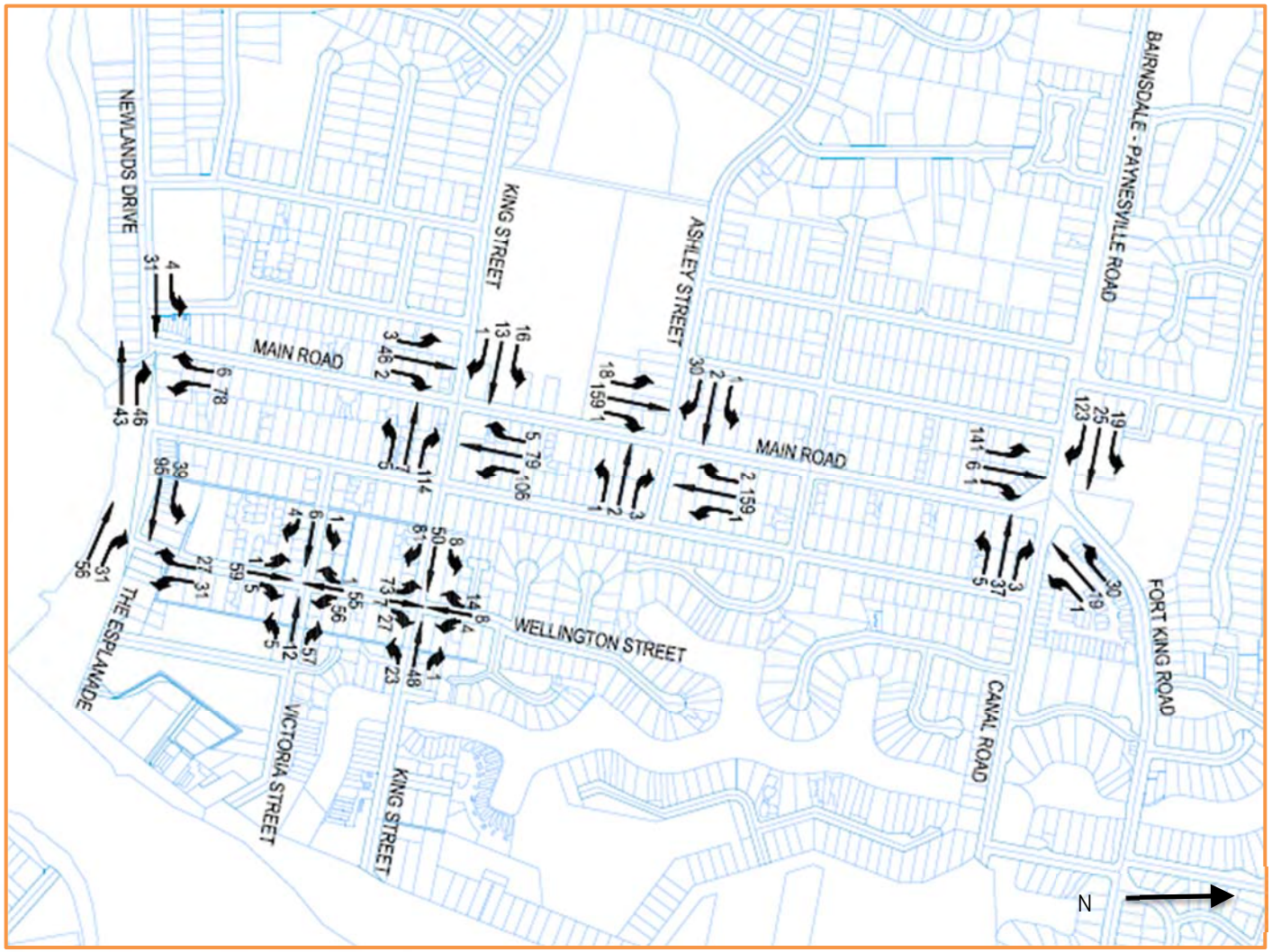


Figure 22 Paynesville PM Peak Hour Traffic Volumes

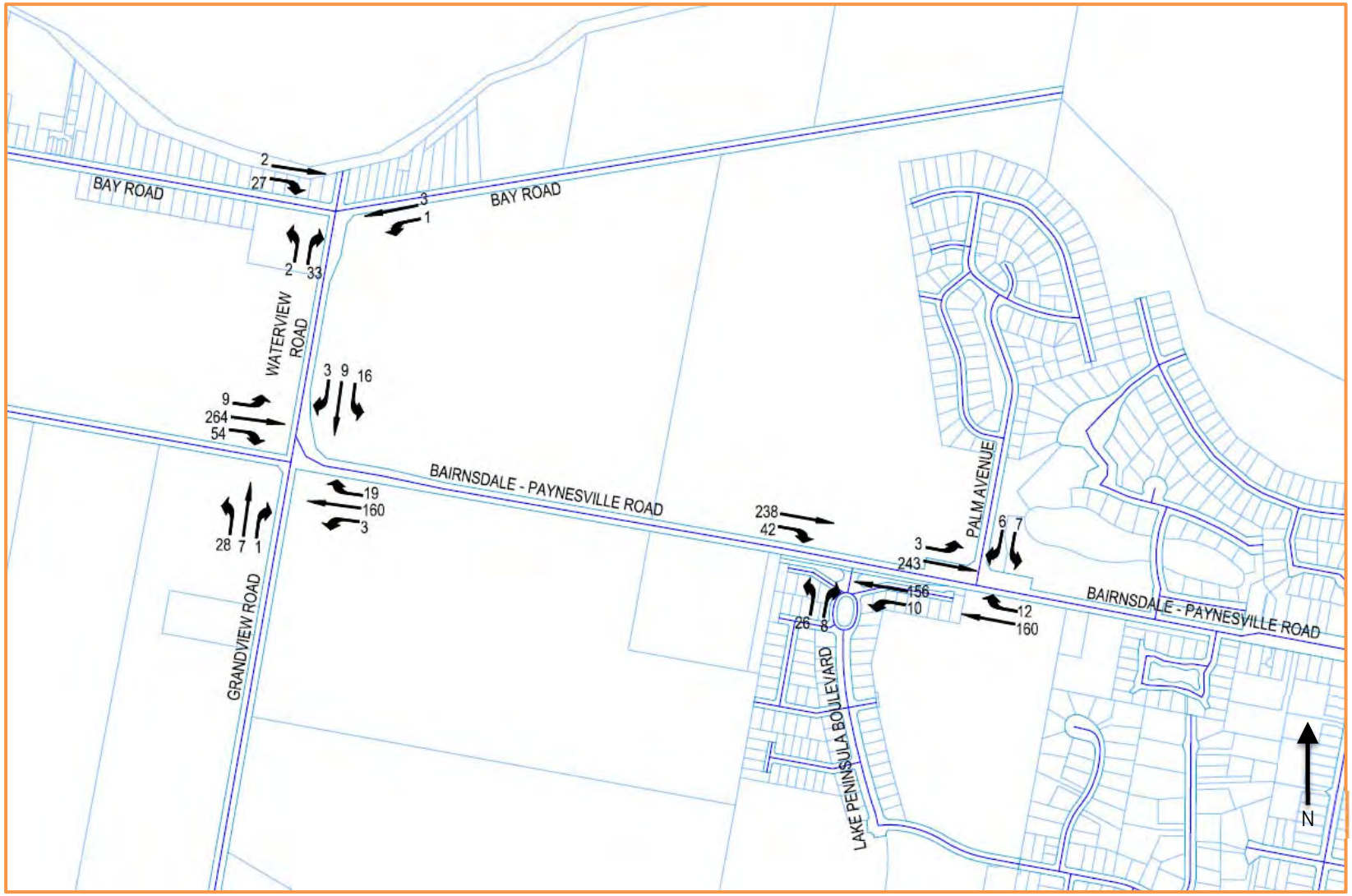
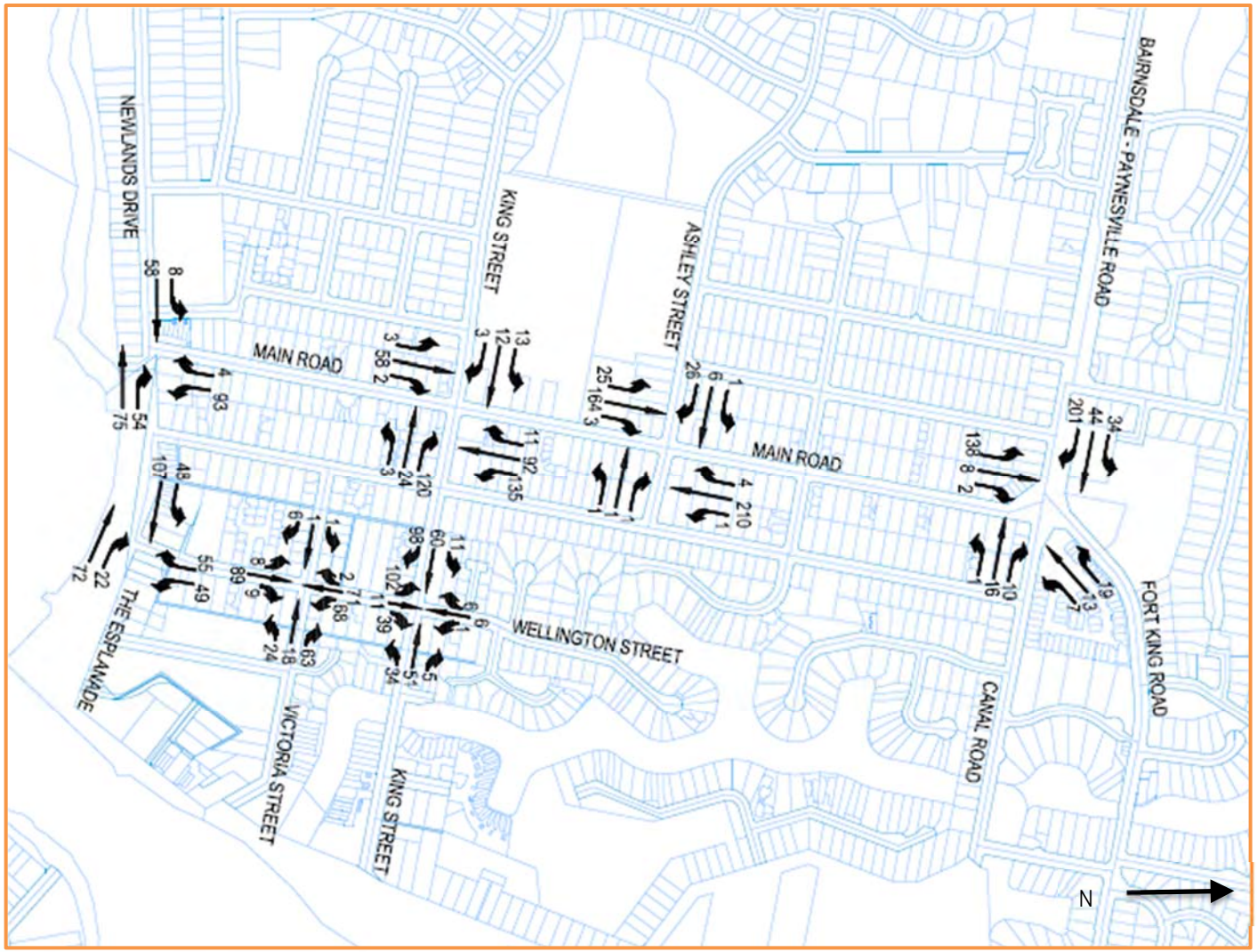


Figure 23 Paynesville PM Peak Hour Traffic Volumes



5.2 EXISTING INTERSECTION PERFORMANCE

Analysis has been performed on each of the intersections in Paynesville at which turn movement counts were undertaken in order to determine the existing performance of each intersection. The intersection analysis package Sidra v6.1 has been used to perform the analysis, using the network analysis component of the software.

SIDRA INTERSECTION 6.1 is a platoon based intersection modelling tool that allows for the capacity of an intersection or a number of intersections to be analysed in terms of a range of parameters, as described below:

Degree of Saturation (DoS) is the ratio of the volume of traffic observed making a particular movement compared to the maximum capacity for that movement. Various values of degree of saturation and their rating are shown in Table 3 below.

95th Percentile (95%ile) Queue represents the maximum queue length, in metres, that can be expected in 95% of observed queue lengths in the peak hour.

Average Delay (Av. Delay) represents the typical delay experience by a vehicle waiting to perform a turn movement at the intersection.

Table 3 Degree of Saturation ratings

Degree of Saturation	Rating
Up to 0.6	Excellent
0.6 to 0.7	Very Good
0.7 to 0.8	Good
0.8 to 0.9	Fair
0.9 to 1.0	Poor
Above 1.0	Very Poor

Table 4 Summary of Key SIDRA Outputs – Paynesville

No.	Intersection	Approach	AM Peak			PM Peak		
			Dos	Av. Delay (s)	95th%ile Queue (m)	Dos	Av. Delay (s)	95th%ile Queue (m)
05	Paynesville Rd/ Grandview Rd	South	0.05	9.5	1	0.04	9.4	1
		East	0.14	0.1	0	0.10	0.9	1
		North	0.03	9.6	1	0.04	10.3	1
		West	0.10	0.3	0	0.18	1.3	3
06	Grandview Rd/ Bay Rd	South	0.01	5.6	0	0.02	5.5	1
		East	0.00	5.2	0	0.00	4.7	0
		West	0.01	5.3	0	0.02	5.2	1
07	Paynesville Rd/ Lake Peninsula Rd	South	0.05	7.0	1	0.04	7.0	1
		East	0.12	0.1	0	0.08	0.3	0
		West	0.10	0.4	0	0.13	0.9	1
08	Paynesville Rd/ Palm Ave	East	0.12	0.1	0	0.10	0.6	1
		North	0.01	7.7	0	0.01	7.3	0
		West	0.10	0.1	0	0.13	0.1	0
09	Main Rd/ Fort King Rd/ Canal Rd	South	0.11	4.3	4	0.11	4.3	4
		East	0.04	5.2	1	0.03	6.5	1
		North	0.04	7.6	1	0.04	7.5	1
		West	0.11	7.6	4	0.18	7.5	7
10	Main Rd/ Ashley St	South	0.09	0.6	0	0.10	0.9	0
		East	0.01	9.6	0	0.00	9.8	0
		North	0.09	0.1	0	0.11	0.2	0
		West	0.05	9.9	1	0.05	10.5	1
11	Main Rd/ King St	South	0.03	0.6	0	0.03	0.5	0
		East	0.16	9.2	4	0.19	9.6	5
		North	0.10	3.3	0	0.13	3.5	1
		West	0.03	8.7	1	0.03	9.0	1
12	Main Rd/ Newlands Dr	East	0.05	2.9	2	0.07	2.5	2
		North	0.06	5.7	2	0.07	5.8	2
		West	0.02	0.6	0	0.04	0.7	0
13	Wellington St/ The Esplanade	East	0.05	2.3	1	0.05	1.5	1
		North	0.05	6.1	1	0.09	6.2	2
		West	0.07	1.6	0	0.08	1.7	0
14	Wellington St/ Victoria St	South	0.04	0.1	0	0.06	1.0	1
		East	0.07	6.0	2	0.10	6.2	3
		North	0.06	2.9	0	0.08	2.8	0
		West	0.01	5.4	0	0.01	6.3	0
15	Wellington St/ King St	South	0.06	5.2	1	0.09	5.2	2
		East	0.06	5.0	2	0.07	5.2	2
		North	0.02	4.0	0	0.01	3.3	0
		West	0.15	8.6	4	0.19	8.9	5

Table 4 provides a summary of the key SIDRA outputs for the Paynesville area. Review of these outputs indicate that with the current traffic volumes, the surveyed intersections are all operating within the excellent DoS range, with average delays typically of less than 10 seconds and with 95th percentile queue lengths of no more than 12.0m. This indicates that each of the surveyed intersections are currently functioning adequately and that they all have capacity to accommodate increased traffic volumes.

Further to the above, the latest update of SIDRA includes the ability to model intersection on a network basis rather than as a standalone intersection

Where a large road network is involved, this allows improved analysis of the capacity and functionality of each intersection as it is able to factor in the upstream and downstream effects of all of the surrounding intersections.

This allows the software to analyse whether there is any additional capacity in each of the intersections that may be generated by delays in prior intersections.

Based on using this method of analysis, Figure 24 and Figure 25 provide a representation of the Degrees of Saturation experienced throughout the entire street network for both the AM and PM peak periods.

The green solid line shown throughout both of the figures indicates that the network as a whole is functioning within the excellent range.

Figure 24 Degree Of Saturation – AM Peak Period

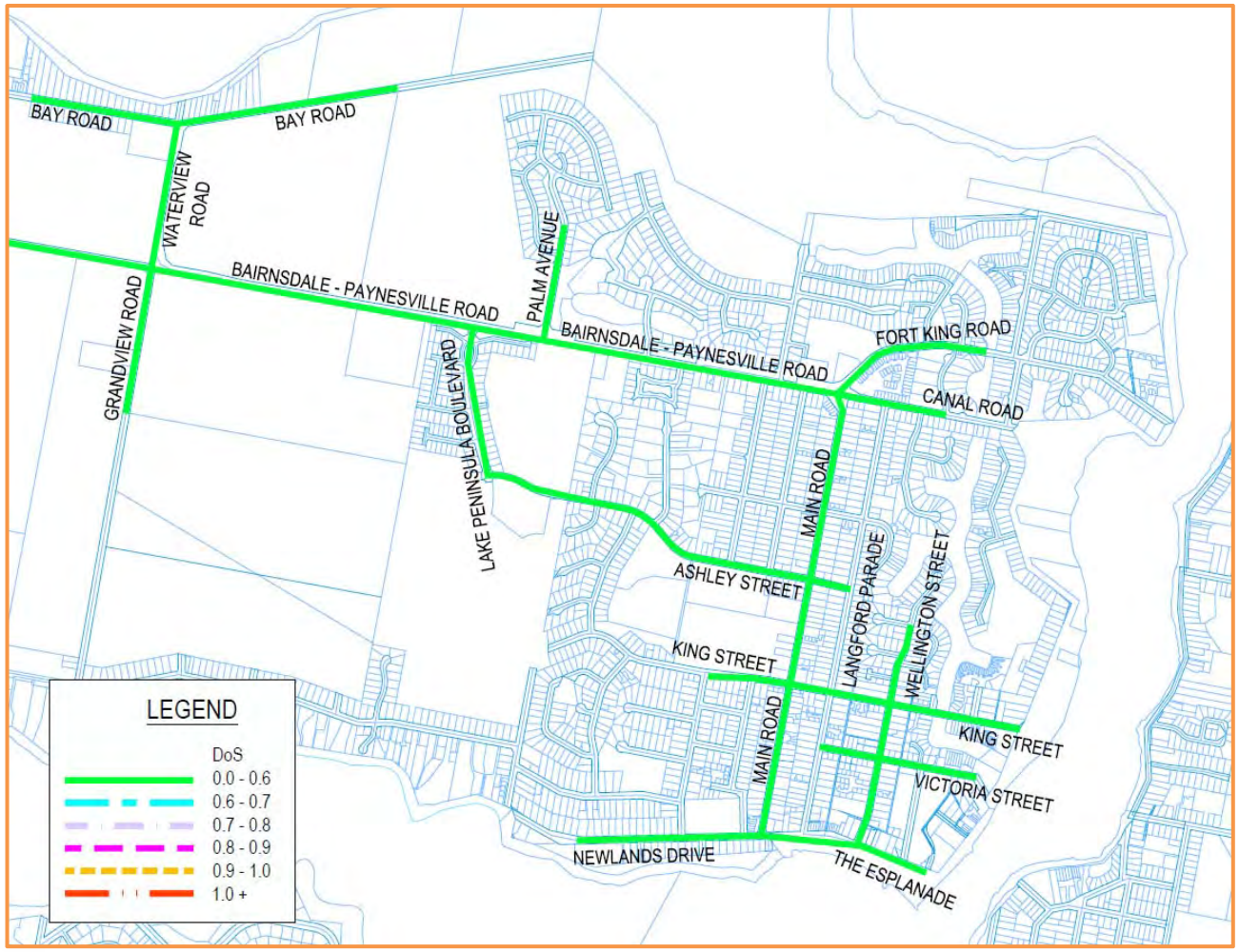
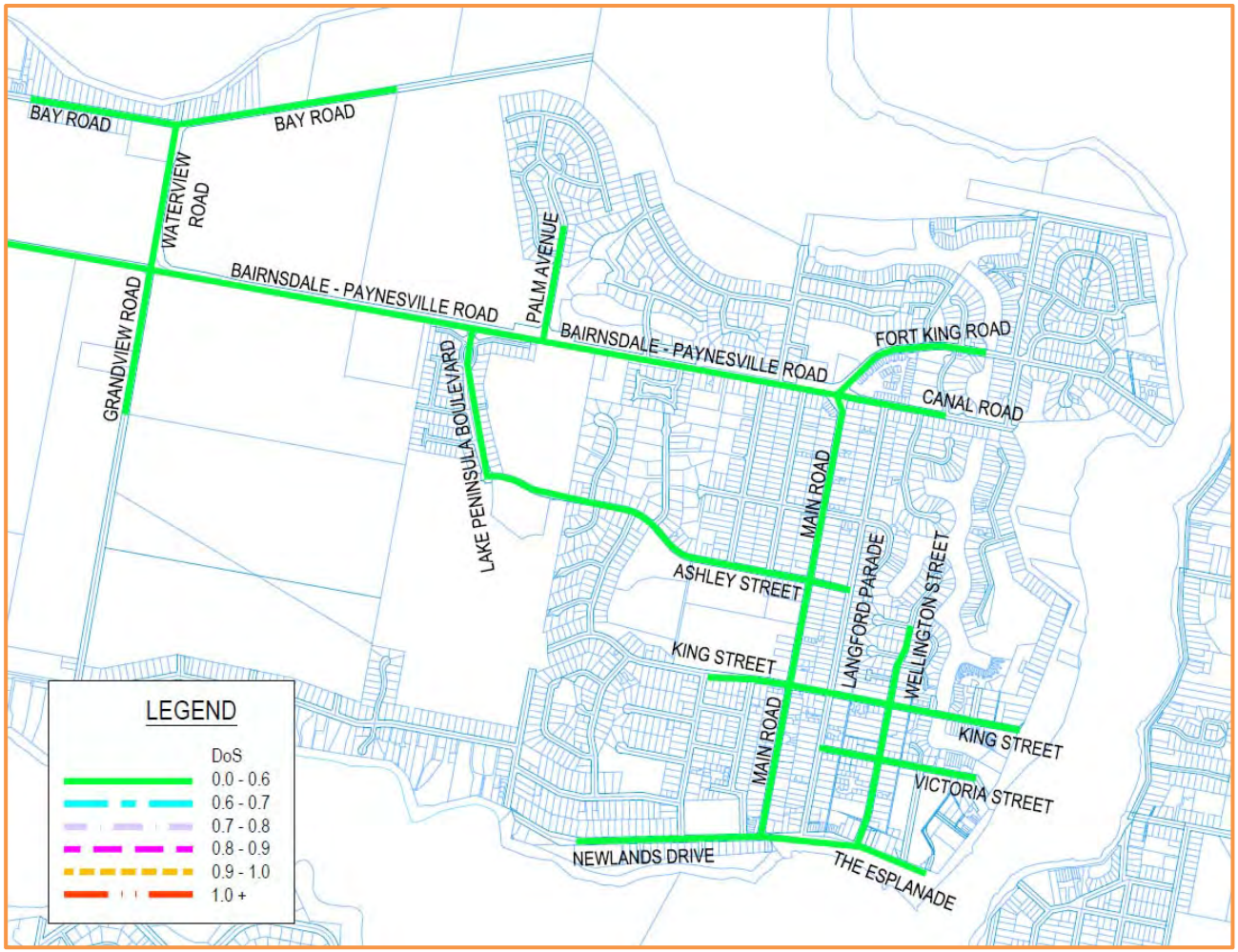


Figure 25 Degree Of Saturation – PM Peak Period



5.3 TUBE COUNTS

In addition to the turning movements counts detailed in section 5.1, seven day tube counts have also been undertaken for a number of the roads within the Paynesville and Eagle Point area. The tube counts were undertaken for a week long period spanning from Friday 23rd January to Thursday 29th January, 2015. This survey period encompasses a typical weekend and the Australia Day long weekend.

Due to the holiday nature of Eagle Point and Paynesville, it was anticipated that traffic volumes for the Australia Day long weekend would be greater than typically experienced, therefore additional surveys were also undertaken on the weekend of the 31st January & the 1st February, 2015, to use as a comparison of more typical weekend traffic volumes.

The tube counts recorded all vehicle movements in both directions along each surveyed section of road during the survey period. The roads surveyed are detailed as follows with the location of the tube counters shown in Figure 26.

Paynesville Tube Count Locations

8. Waterview Road
9. Bairnsdale – Paynesville Road
10. Main Road
11. Main Road
12. Victoria Street
13. The Esplanade
14. Newlands Drive
15. Grandview Road

Figure 26 Tube Count Locations

Table 5 shows a summary of the average number of vehicles per day observed during the survey period for Paynesville.

Full results of the tube count surveys are provided within APPENDIX 2.

Table 5 Tube Count Data Summary – Paynesville

Location No.	Road Name	Average 7-Day (vpd)	Average Weekday (vpd)	Average Long Weekend (vpd)	Average Typical Weekend (vpd)
8	Grandview Road – (North Paynesville Road)	647	605	764	556
9	Paynesville Road – (East Grandview Road)	5422	5569	5059	4273
10	Main Road – (South Paynesville Road)	3831	3816	3882	3021
11	Main Road – (North The Esplanade)	1908	1851	2069	1585
12	Victoria Street	1800	1740	1966	1542
13	The Esplanade	2693	2603	2923	2268
14	Newlands Drive	1373	1329	1491	1135
15	Grandview Road – (South Paynesville Road)	1019	1013	1026	816

5.4 TUBE COUNT DATA ANALYSIS

Analysis of the tube counts show, that as anticipated, typically there was an increase of between 20% – 40% in traffic volume along the surveyed roads over the long weekend when compared to a typical weekend.

In addition to this, the tube count data can also be used to analyse whether the classification of the roads that has been determined based on their width is adequate to support the traffic volumes that are experienced.

Table 1 provides a summary of how each of the roads have been classified based upon their width, and compares this to what the classification the experienced traffic volumes would require.

Review of this table shows that all of the survey roads are currently operating with traffic volumes significantly less than what is expected based on their classifications by width with respect to the Planning Scheme Classifications.

Classifications as per the IDM version 4.4.2 are less definite as the categories often do not match the existing roads either for width or volume.

This shows that given their current configurations, there is capacity for the number of vehicles travelling along each road to be increased.

Table 6 Road Classification – Based on existing volumes/width

No.	Road Name	Average Observed Vehicles per Day (Week Day)	Planning Scheme			IDM v4.4.2		
			Classification (Width)	Classification Vehicles	Classification (Observation)	Classification (Width)	Classification Vehicles	Classification (Observation)
8	Grandview Road – (North Paynesville Road)	647	Access Street Level 1	1000 – 2000 vpd	Access place	Access Street	1000 – 2500 vpd	Access Street
9	Paynesville Road – (East Grandview Road)	5422	Arterial Road	7000+ vpd	Collector Street Level 2	Connector Street Level 1	2500 – 6000 vpd	Connector Street Level 1
10	Main Road – (South Paynesville Road)	3831	Collector Street Level 2	3000 – 7000 vpd	Collector Street Level 2	Connector Street Level 1	2500 – 6000 vpd	Connector Street Level 1
11	Main Road – (North The Esplanade)	1908	Collector Street Level 2	3000 – 7000 vpd	Access Street Level 1	Connector Street Level 1	2500 – 6000 vpd	Access Street
12	Victoria Street	1800	Collector Street Level 2	3000 – 7000 vpd	Access Street Level 1	Connector Street Level 1	2500 – 6000 vpd	Access Street
13	The Esplanade	2693	Collector Street Level 2	3000 – 7000 vpd	Access Street Level 2	Connector Street Level 1	2500 – 6000 vpd	Connector Street Level 1
14	Newlands Drive	1373	Collector Street Level 2	3000 – 7000 vpd	Access Street Level 1	Connector Street Level 1	2500 – 6000 vpd	Access Street
15	Grandview Road – (South Paynesville Road)	1019	Access Street Level 1	1000 – 2000 vpd	Access Street Level 1	Access Street	1000 – 2500 vpd	Access Street

5.5 SPEED RESTRICTIONS

The tube count data collected in section 5.3 can also be used to determine the average and 85th percentile speeds at which vehicles are travelling along the surveyed roads.

Table 7 provides a summary of the posted speed limit for each of the surveyed roads and provides a comparison against the observed average and 85th percentile speeds.

The data shows that for all roads, the average vehicle speed is below the posted speed limit. Furthermore, the data also shows that for over 60% of the surveyed roads, even the 85th percentile speed was below the posted speed limit.

This indicates that with the current road configurations, drivers are typically adhering to the speed limits along the surveyed sections of road.

Table 7 Speed Restrictions

No.	Road Name	Speed Limit (km/h)	7-Day Average Speed (km/h)	7-Day 85th%tile Speed (km/h)
8	Grandview Road – (North Paynesville Road)	60	57.9	64.6
9	Paynesville Road – (East Grandview Road)	80	79.3	85.6
10	Main Road – (South Paynesville Road)	60	51.5	57.2
11	Main Road – (North The Esplanade)	60	48.5	54.0
12	Victoria Street	40	37.9	42.3
13	The Esplanade	50	42.6	48.7
14	Newlands Drive	60	49.8	57.4
15	Grandview Road – (South Paynesville Road)	80	60.7	67.0

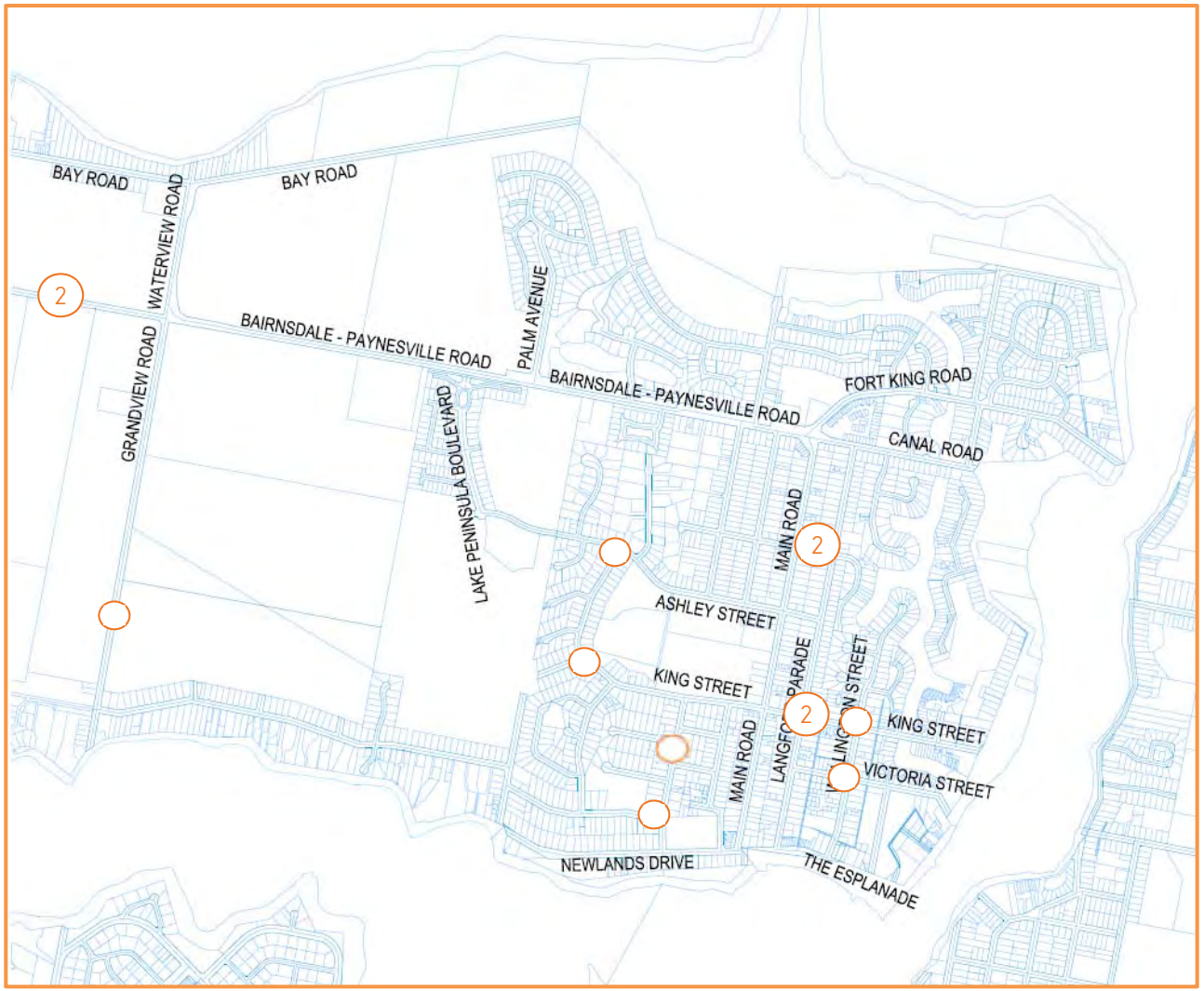
5.6 CRASH STATS

A review of the VicRoads CrashStats data for the Paynesville area has revealed that in the 5 year period from 2011 to 2016 there were 13 vehicle crashes on the surrounding street network.

Figure 27 provides an indication of the location of each of the 13 crashes. If multiple crashes have occurred along the same stretch of road or at the same intersection, this has been notated on the adjacent figure.

Analysis of the CrashStats data shows that the majority of the crashes occurred at an intersection and that the majority of crashes occurred during daylight hours on clear days. This indicates that weather and light conditions were probably not responsible for the crashes and that anecdotally driver error is to blame.

Figure 27 Crash Locations



6 PAYNESVILLE STRUCTURE PLAN

A draft structure plan, as shown in Figure 28, has been prepared for the Paynesville growth area.

The plan shows the intended ultimate layout for the growth area in relation to:

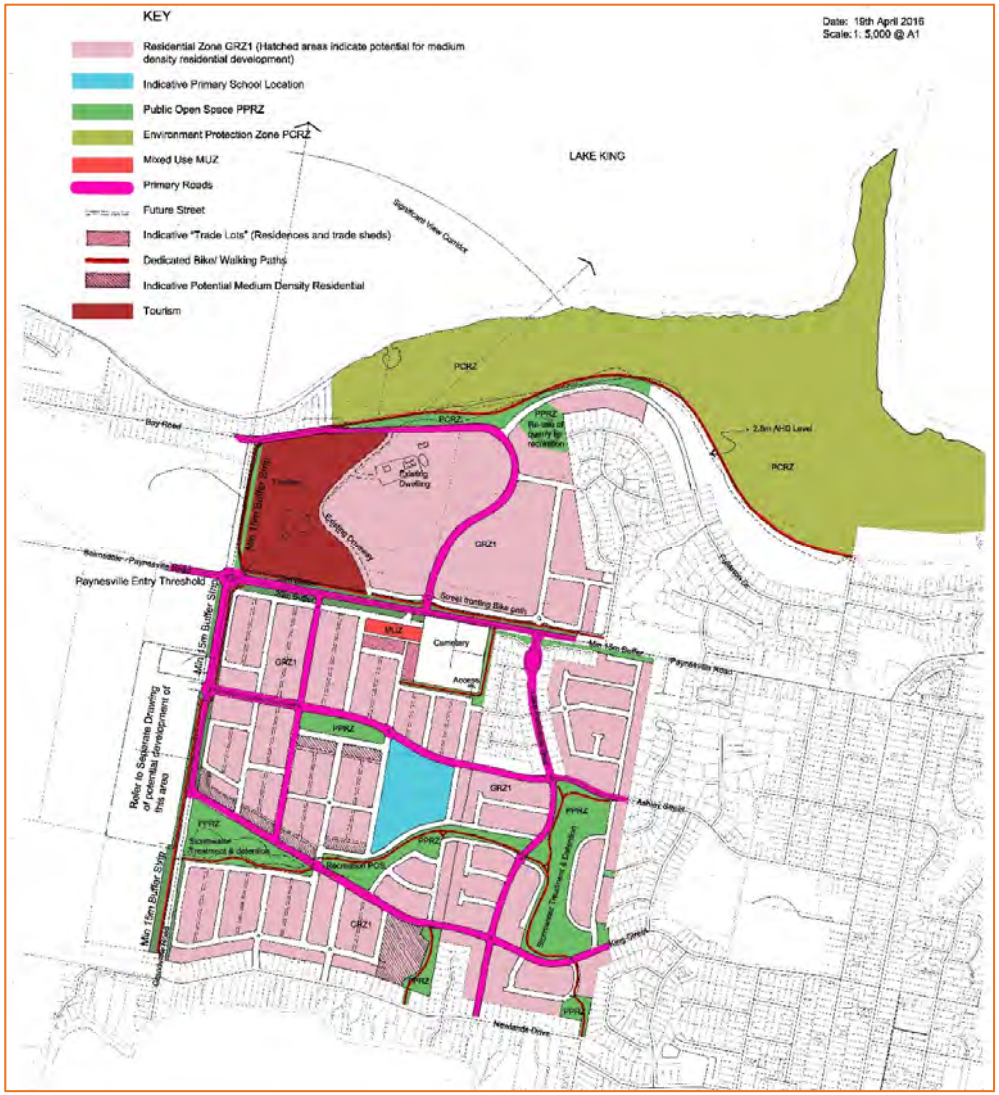
- Street alignment and connection to surrounding and existing areas;
- Potential road classifications;
- Location of residential areas;
- Location of public open spaces;
- Location of tourism areas; and
- Location of the future primary school.

Within some of the individual districts, the structure plan shows an indicative minor street layout where the majority of those indicative streets run north south in order to deliver the more efficient east west allotment orientation, and to provide potential aspects north towards the Lakes and south to water views and Newlands Arm. The plan also reflects the potential for larger lots to be created in the shorter term and re-subdivided into smaller lots in the longer term.

Subsequently, the following analysis has been undertaken in order to determine:

- The traffic volumes and distributions as will be generated by development of the growth area;
- Cross sections for future roads within and surrounding the growth area; and
- What categories of roads should be constructed throughout the area in order to accommodate future traffic volumes.

Figure 28 Draft Paynesville Structure Plan



7 ESTIMATED DWELLINGS/ LOTS IN GROWTH AREA

In order to determine the future traffic volumes and distributions of the Paynesville growth area, the draft structure plan has been divided into 11 separate districts as identified in Figure 29.

The number of lots for each of these areas have then been calculated within Table 8 based on the areas of each of these districts, and a lot yield rate of 10 dwellings per hectare has been adopted.

Table 8 Lot Yields

District	Area (Sqm)	Area (Hectares)	Dwellings/Lots
1	183,500	18.4	184
2	190,350	19.0	190
3	100,580	10.1	138
4	59,100	5.9	81
5	48,200	4.8	66
6	83,000	8.3	83
7	200,310	20.0	200
8	148,700	14.9	149
9	86,303	8.6	86
10	73,950	7.4	74
11	135,600	13.6	124
Total			1375

Figure 29 Paynesville Growth Area Districts

8 TRAFFIC GENERATION CASE STUDY

In order to determine the expected trip generation rates for each of the new lots within the Paynesville growth areas precinct, case studies of existing residential developments within the area were undertaken at Fort King Island, and Eagle Bay Village Estate. The location of these residential estates in respect to the wider Paynesville area are shown in Figure 30.

Both of these developments have been chosen for the case study as they each only have 1 road providing access to/from the area, thereby allowing counts of all daily movements to and from the areas to be undertaken.

Review of each of the residential areas, and the subsequent traffic volume counts undertaken provided the following case study information:

Eagle Bay Village

- 53 Occupied lots;
- Approximately 230 vehicle movements per day.
- Traffic generation rate of 4.5 daily vehicle movements per lot.

Fort King Road

- 224 Occupied lots;
- Approximately 870 vehicle movements per day.
- Traffic generation rate of 3.9 daily vehicle movements per lot.

Figure 30 Case Study Locations

The case study data shows that existing residential developments within the Paynesville area are currently generating in the order of 4 – 4.5 daily vehicle movements per residential lot. This rate is significantly lower than the conventional rate of 9–10 daily vehicle movements per dwelling as typically applied and the rate of 10 daily movements as outlined within the IDM.

As such, a rate of 7 daily vehicle movements per lot is considered conservatively adequate for use when calculating the traffic to be generated by the new lots within the Paynesville growth area.

9 TRAFFIC GENERATION JUSTIFICATION

The objective of the traffic modelling is to ensure that the road network is capable of meeting future traffic demand, however it is important that traffic generation is not overestimated and that no more road infrastructure is provided than will be required.

Over-design of the road system has the potential to conflict with the planning objectives for the area by creating excessive road pavement widths (thus reducing the available space for pedestrians and cyclists, landscape corridors and infiltration of surface water), encouraging higher traffic speed, and adding unnecessarily to the cost of initial development.

The risk of "under-design" within the Precinct Structure Plan is much less given the long period of development and opportunity to review actual traffic generation over time. Generous road reserves are proposed to accommodate local place-making objectives and to create spacious street corridors for multiple use (street trees, lighting, pedestrian/cycle movement, storm water management). In the unlikely event that traffic generation exceeds the predicted volumes, there will be time and capacity to upgrade the road network.

This outcome is unlikely given some of the social drivers of reduced vehicle use: greater number of multi-purpose (as opposed to single-purpose) trips, increased levels of home-based work, smaller household size, trends towards increased cycling and walking for health.

The IDM standard is 10 trips per day for residential dwellings, however the IDM specifically anticipates variations from this standard figure on an evidence base. Where actual measurement of traffic generation in a locality demonstrates a lower traffic generation figure, that data should be used as the primary evidence-based guide.

Evidence from traffic monitoring undertaken in Paynesville indicates a traffic generation rate of 4-4.5 vehicles per day.

The modelling adopts a traffic generation rate of 7 vehicles per day as a conservative assumption, well in excess of the measured actual rate. Given the benefits of providing a road network that is designed for optimum, rather than maximum volumes of traffic, and the long time period over which actual traffic volumes can be monitored, there is no tangible disadvantage in modelling and designing the road network based on this figure.

In addition to the traffic generation analysis, the following considerations were taken into account when determining the rate of 7 daily vehicle movements per dwelling:

The Paynesville development is expected to take place over a 40 – 50 year period. Traffic will therefore not be generated at its peak for a substantial period of time which may result in reductions to the number of typical daily vehicle trips generated per dwelling.

Not all owners will subdivide the land at the expected maximum density of 10 lots per hectare, either initially or in the ultimate form of development, and so the total potential maximum number of lots of 1,375 – on which the traffic analysis has been based – may never be achieved.

Due to the above considerations, there is capacity within the traffic model for the development to operate with traffic generation at a rate exceeding 4-4.5 vehicles per day without impacting on the capacity of the street network.

10 TRAFFIC MODELLING

In order to determine which road categories and cross section should be applied to each section of road within the Paynesville growth area, traffic models showing future distributions and volumes of traffic within the area have been prepared.

Key elements required for the preparation of the traffic models are the anticipated traffic volumes of the Paynesville growth area, and the distribution of traffic to/from this area.

The results of the traffic model, as well as the proposed road categories are included within APPENDIX 4. The traffic assessment is based on the ultimate fully developed residential density of the growth area.

10.1 DISTRIBUTION OF TRAFFIC

Following discussion with council officers, in order to provide a conservative assessment of traffic distribution, it has been assumed within the traffic model that vehicle movements form each of the 11 districts are evenly distributed with 50% of movements heading to/from Bairnsdale with the other 50% heading to/from Paynesville.

Within the catchment, traffic for each district has been distributed along the street network in such a manner that the majority of traffic (typically 60% – 75%) will use the main roads, with the remaining traffic (typically 25% – 40%) using the minor roads and connecting streets. Conservatively all traffic has been distributed to the external road network

10.2 ANTICIPATED TRAFFIC VOLUMES

Based on the growth area potentially accommodating 1375 lots/dwellings as calculated in section 7 and the trip generation rate of 7 daily vehicle movements per dwelling as derived through the case study data in section 8, it is estimated that once fully developed, the Paynesville growth area will generate a maximum of 9,625 daily vehicle movements.

The estimated traffic volumes for each of the 11 districts are provided within Table 9.

Table 9 Estimated Traffic Volumes

District	Dwellings/Lots	Vehicles Per Day
1	184	1288
2	190	1330
3	138	966
4	81	567
5	66	462
6	83	581
7	200	1400
8	149	1043
9	86	602
10	74	518
11	124	868
Total	1375	9625

In addition to these volumes, it is also estimated that the nearby Eagle Point growth area will add an additional 500 dwellings to the area.

Based on the previously used trip generation rate this will equate to an additional 3,500 vehicle movements per day. If these movement then follow the same distribution patterns as applied to the Paynesville growth area, it will result in an additional 1,750 moving through the Paynesville growth area and its surrounding street network.

Overall this will see a total of 11,375 additional vehicle movements travelling through the Paynesville area and surrounding street network.

10.3 TRAFFIC MODEL

Based on the preceding traffic distribution and volume estimations, a traffic model has been prepared showing the traffic volumes along each of the existing and proposed roads within the Paynesville growth area and surrounds. The results of this traffic model are shown in Figure 31, to Figure 33 following.

The model has been prepared using 'gates' which indicate the volume of traffic along a particular section of road.

Figure 31 shows the anticipated traffic generated by development of the growth area and what volumes of traffic it will generate along each section of road. This includes anticipated traffic from the future Eagle Point growth area.

Figure 32 shows the existing traffic volumes at each of the gates based on analysis of the traffic counts that have previously been undertaken.

Figure 33 shows the combined traffic volumes of the existing conditions and the additional traffic as estimated to be generated by development of the growth area.

Subsequently, the traffic volumes as presented in Figure 33 can then be used in order to determine which category each road can be classed as.

Figure 31 Estimated Traffic Volumes and Distributions

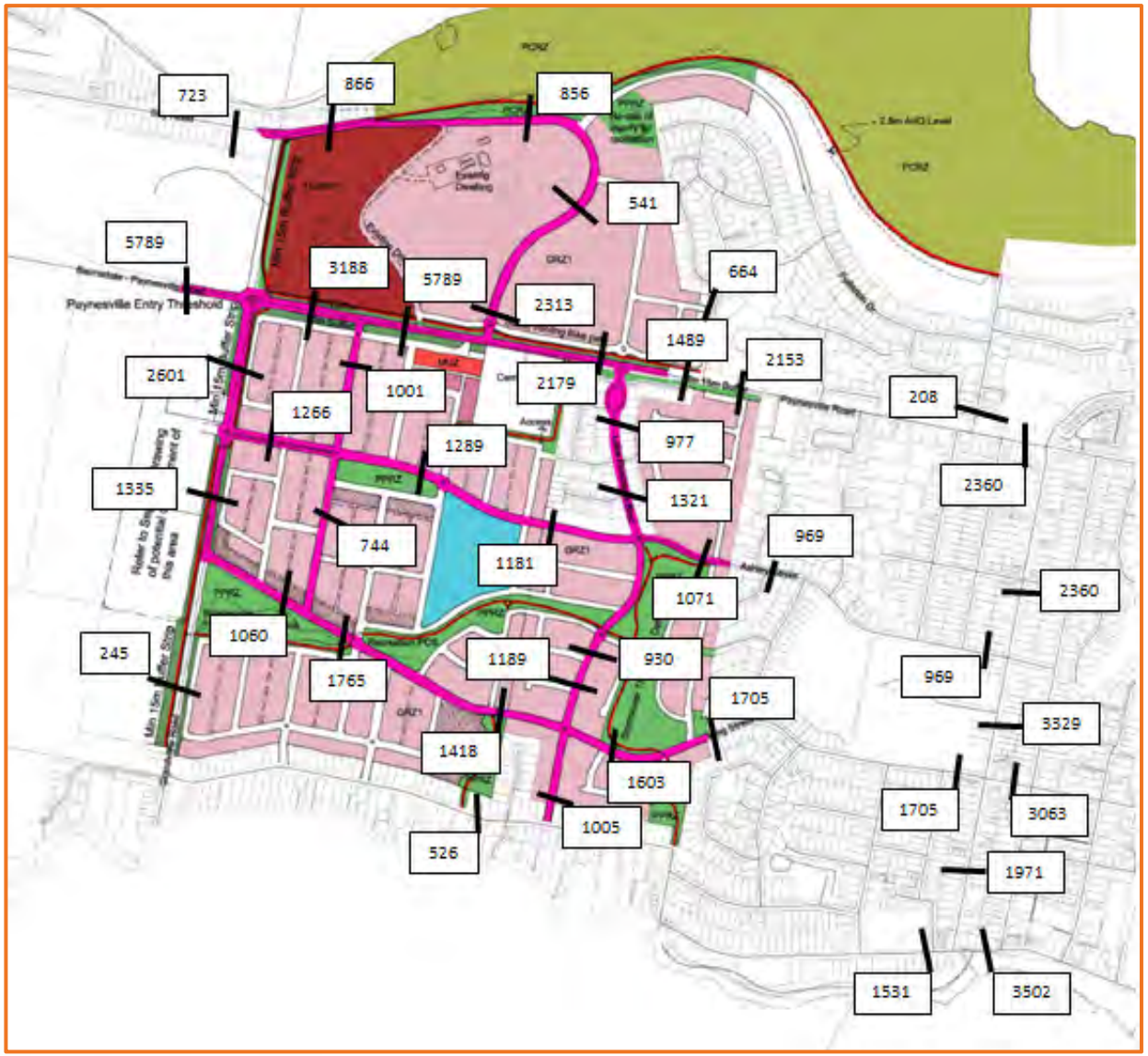
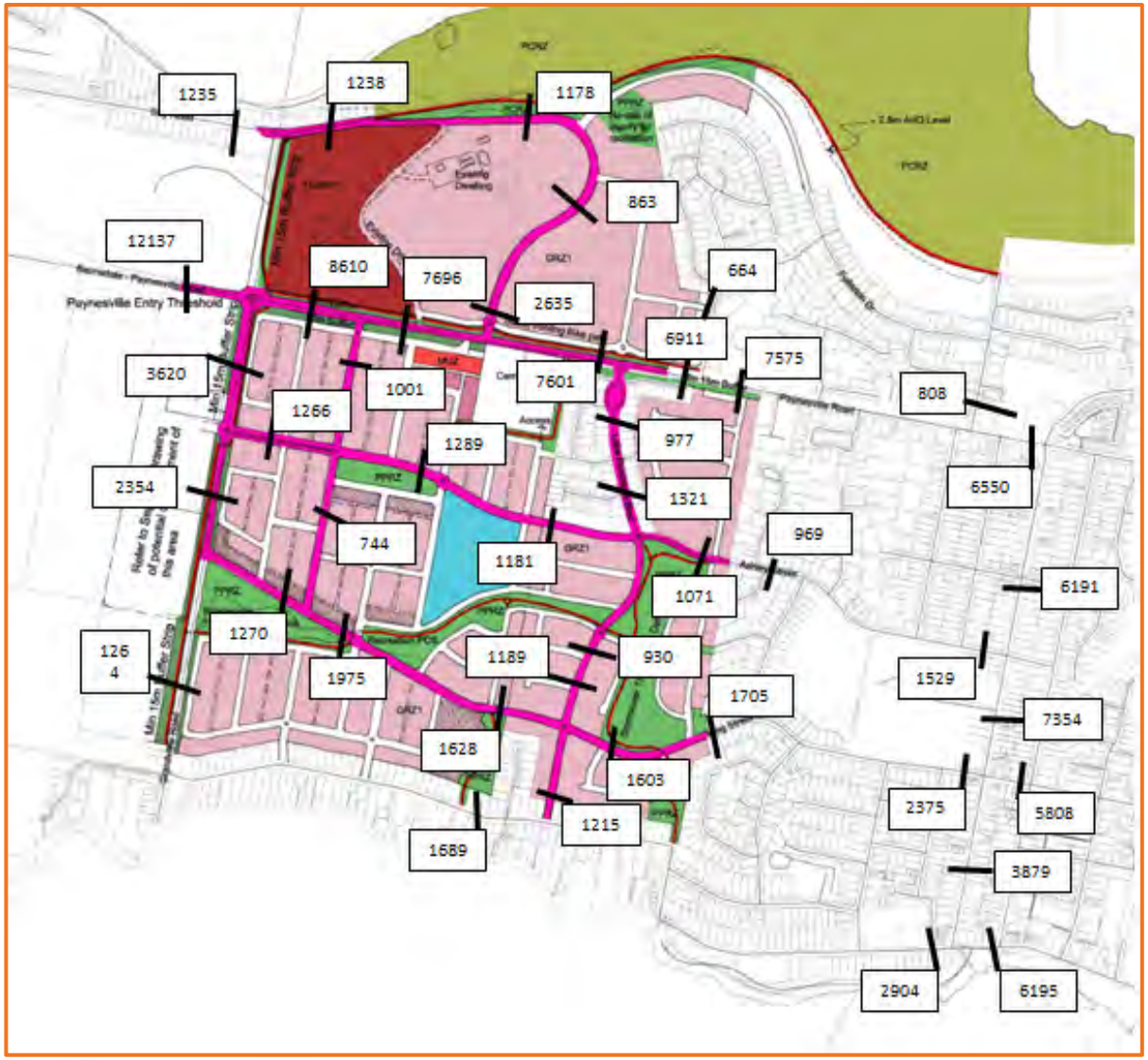


Figure 32 Existing Traffic Volumes and Distributions

Figure 33 Traffic Volumes and Distributions



10.4 ROAD CLASSIFICATIONS

Following on from the outputs of the traffic model, it is possible to assign each road a category based on the traffic volumes that they have been estimated to accommodate. The classification for each of the roads are identified within Figure 34 and Figure 35.

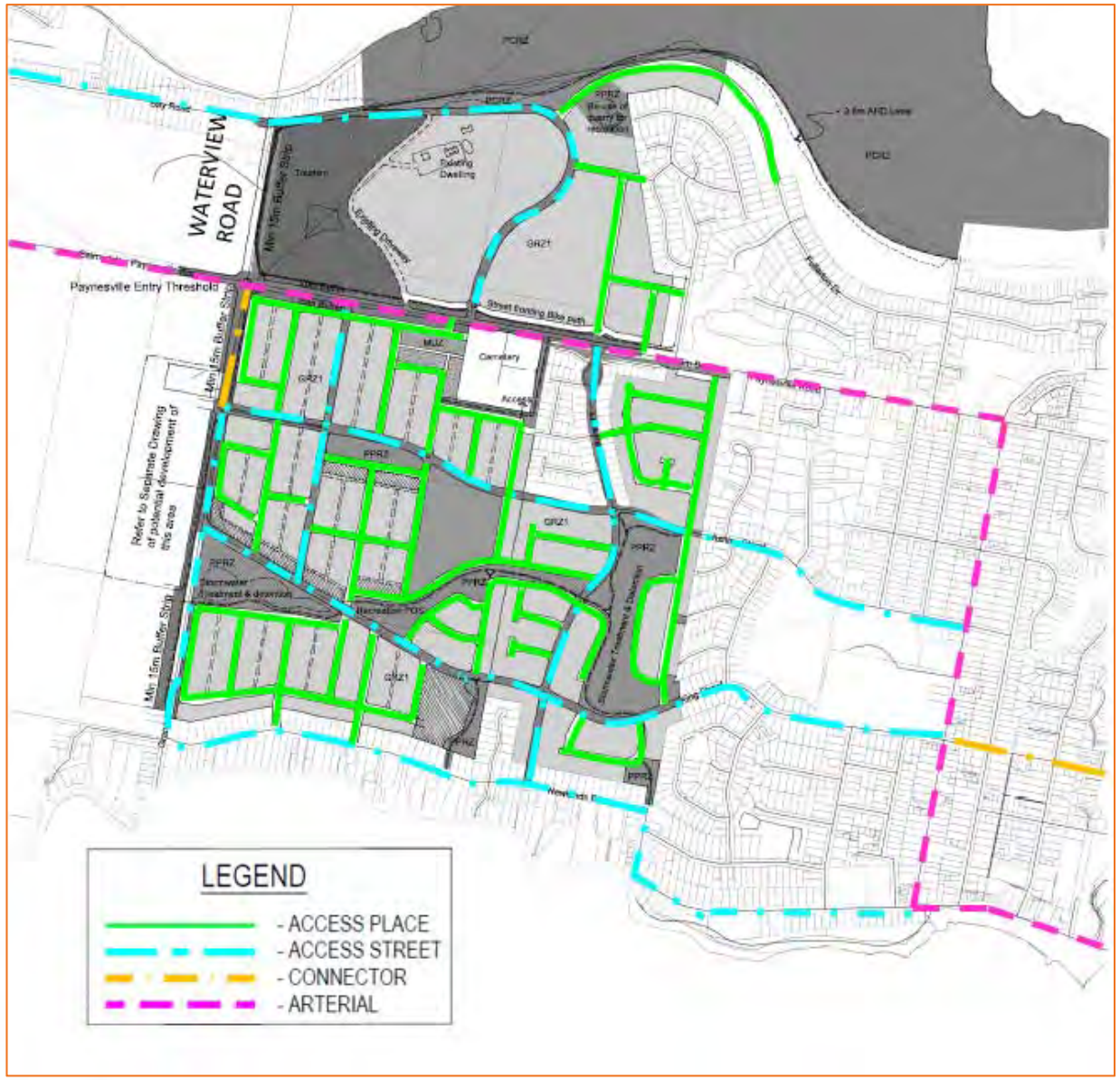
Figure 34 shows the category of each section of road based upon the traffic volumes expected at each point.

Figure 35 shows the categorisation of each length of road. Where a road may have several sections of different categories as identified in Figure 34, the highest ranked category of the road has been used.

These road classifications, along with the cross sections as developed within section 12 can then be used for the development of the precinct.

Figure 34 Road Categories

Figure 35 Road Categories



11 INFRASTRUCTURE

In order to accommodate the future traffic that is ultimately expected to be generated by the precinct it will be necessary for a number of existing roads and intersections outside of the structure plan to undergo upgrades.

This is typical for a structure plan to look at the traffic impacts on the adjacent road network and to minimise impacts on exiting residents.

Based on Section 9, the following intersections have been identified as being required to undergo an upgrade as part of ultimate precinct design and will be included within a Developer Contribution Plan (DCP):

- Intersection Bairnsdale–Paynesville Road and Grandview Road;
- Intersection Ashley Street and Main Road;
- Intersection King Street and Main Road;
- Intersection Grandview Road and the ultimate continuation of Ashley Street.

These intersections are to be upgraded in order to provide additional capacity within the street network and to encourage motorist to utilise key routes rather than residential streets.

In addition to the above, several roads have also been identified as ultimately needing to be upgraded, however are not included within the DCP:

- Bairnsdale–Paynesville Road between Grandview Road and Main Road;
- Main Road between Paynesville–Bairnsdale Road and The Esplanade;

Concept plans have been prepared for these proposed upgrades and are attached in APPENDIX 5.

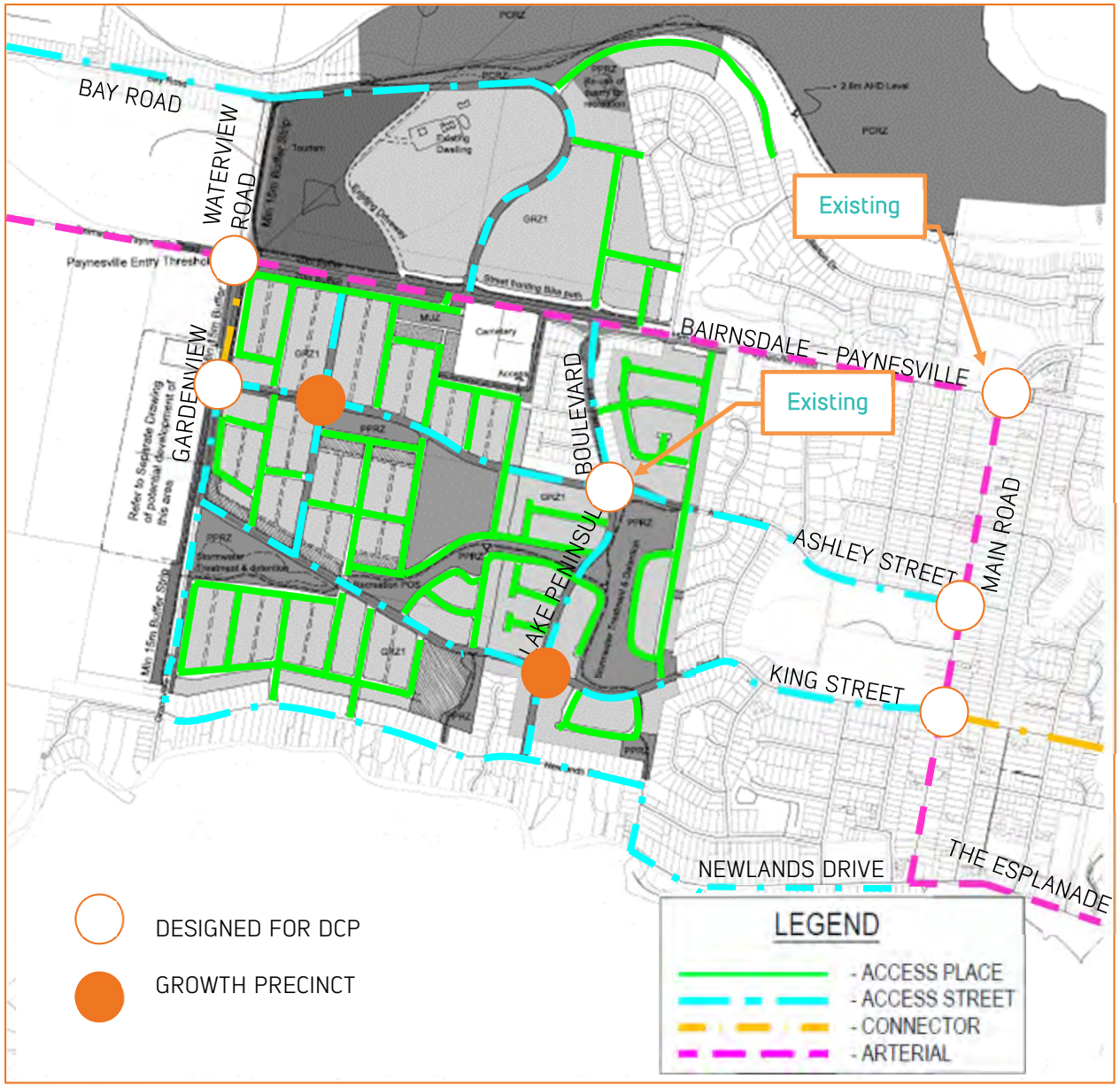
12 INTERSECTION ARANGEMENTS

Within the growth area, and for several of the roads surrounding the area that are to be upgraded to accommodate the additional traffic, it is suggested that the following intersection arrangements are used:

- Where an Arterial Road intersects with another Arterial Road or Connector Street, the intersection should be constructed in the form of a single lane roundabout.
- Where a minor street (Access Street, Place, or Lane) intersects with a major street (Arterial Road or Connector Street), the minor street, will intersect with the major street in the form of a give-way intersection with the major street having the right of way.
- Where an Access Street intersects with another Access Street, the intersection is to take the form of a single lane roundabout.

Figure 36 adjacent shows the proposed locations for the roundabouts as well as existing roundabouts already in the area. All other intersections are to be in the form of a give-way with the lower categorised road giving way to the higher category.

Figure 36 Roundabout Locations



13 PROPOSED ROAD CATEGORIES AND CROSS SECTIONS

Based on a review of the existing conditions around Paynesville, as well as reviewing both the East Gippsland Planning Scheme and the Infrastructure Design Manual 4.4.2, five road categories have been developed for use throughout the Paynesville growth area development.

These road categories, and the traffic volumes which they are to accommodate are listed in Table 10:

Table 10 Road Categories

Road Category	Traffic Volumes (Vehicles Per Day)
Access Lane	300
Access Place	300 – 1000
Access Street	1000 – 3000
Connector Street	3000 – 6000
Arterial Road	6000 +

Cross sections have been prepared for each of the above road categories. The cross sections have been designed in order to provide elements of both the Planning Scheme and IDM whilst still fitting in with the existing street network and road forms.

These cross sections are shown in Figure 37 to Figure 41 following with detailed cross sections provided within APPENDIX 3.

Figure 37 Access Lane

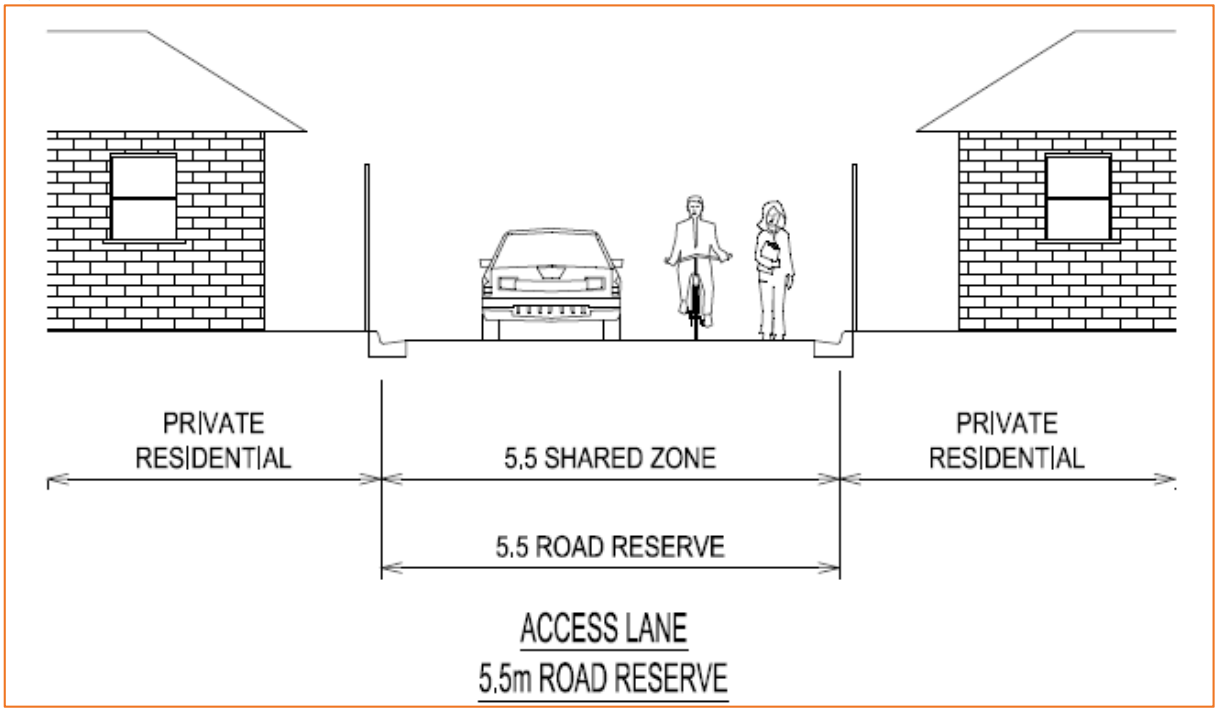
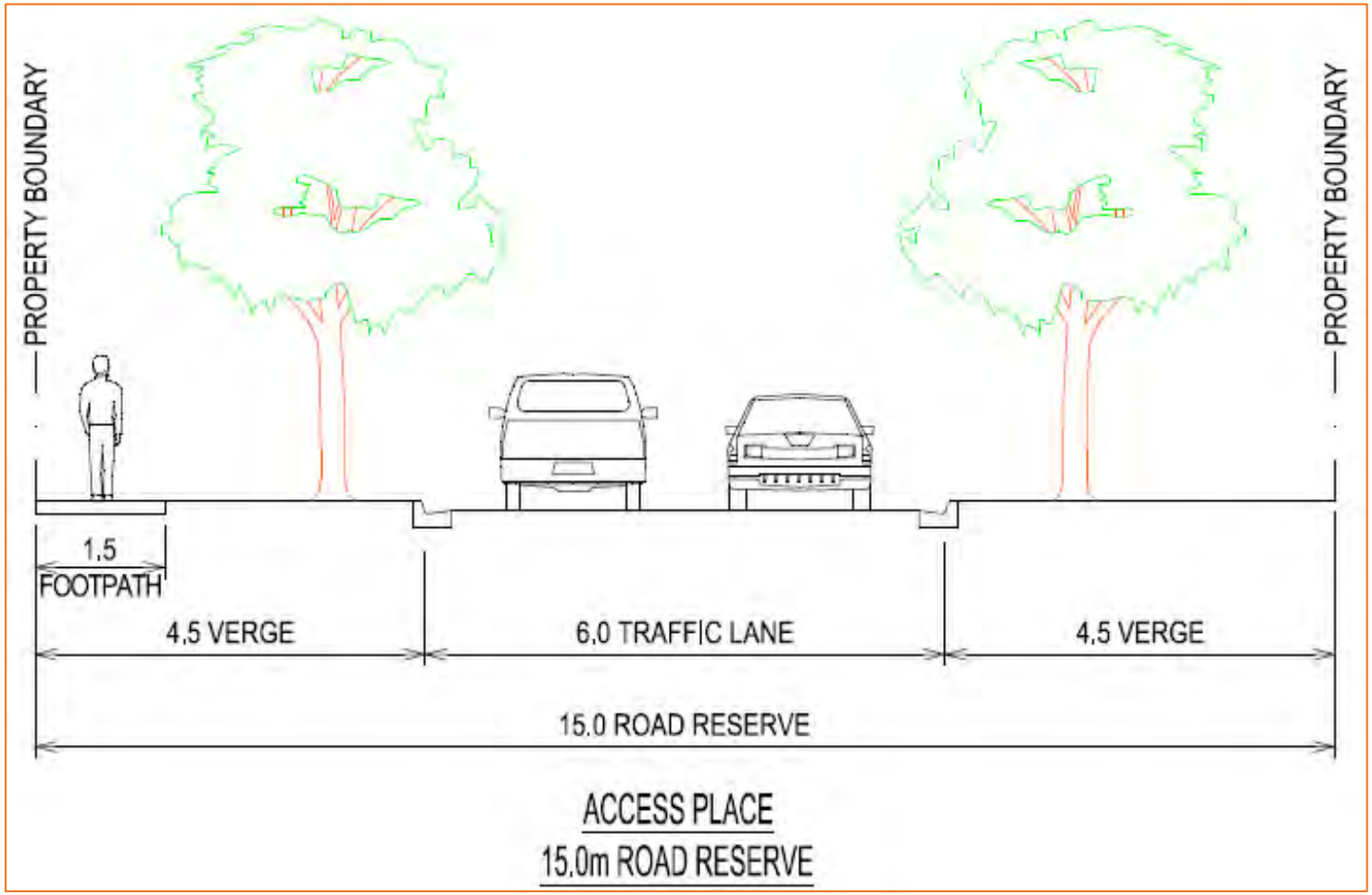
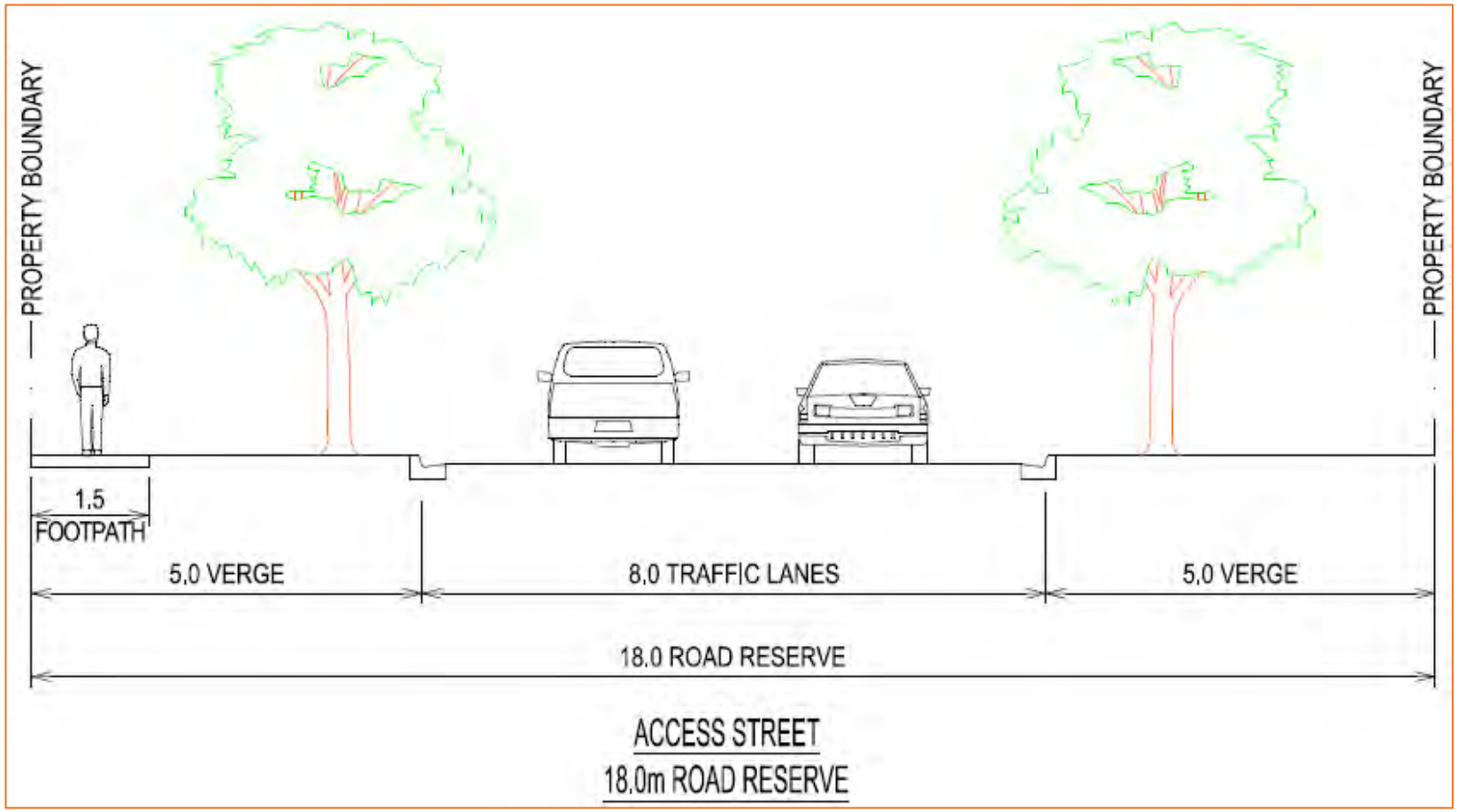


Figure 38 Access Place



NOTE: The structure plan incorporates a significant number of off-road bicycle and pedestrian paths in order to encourage cyclists and pedestrians away from road reserves.

Figure 39 Access Street

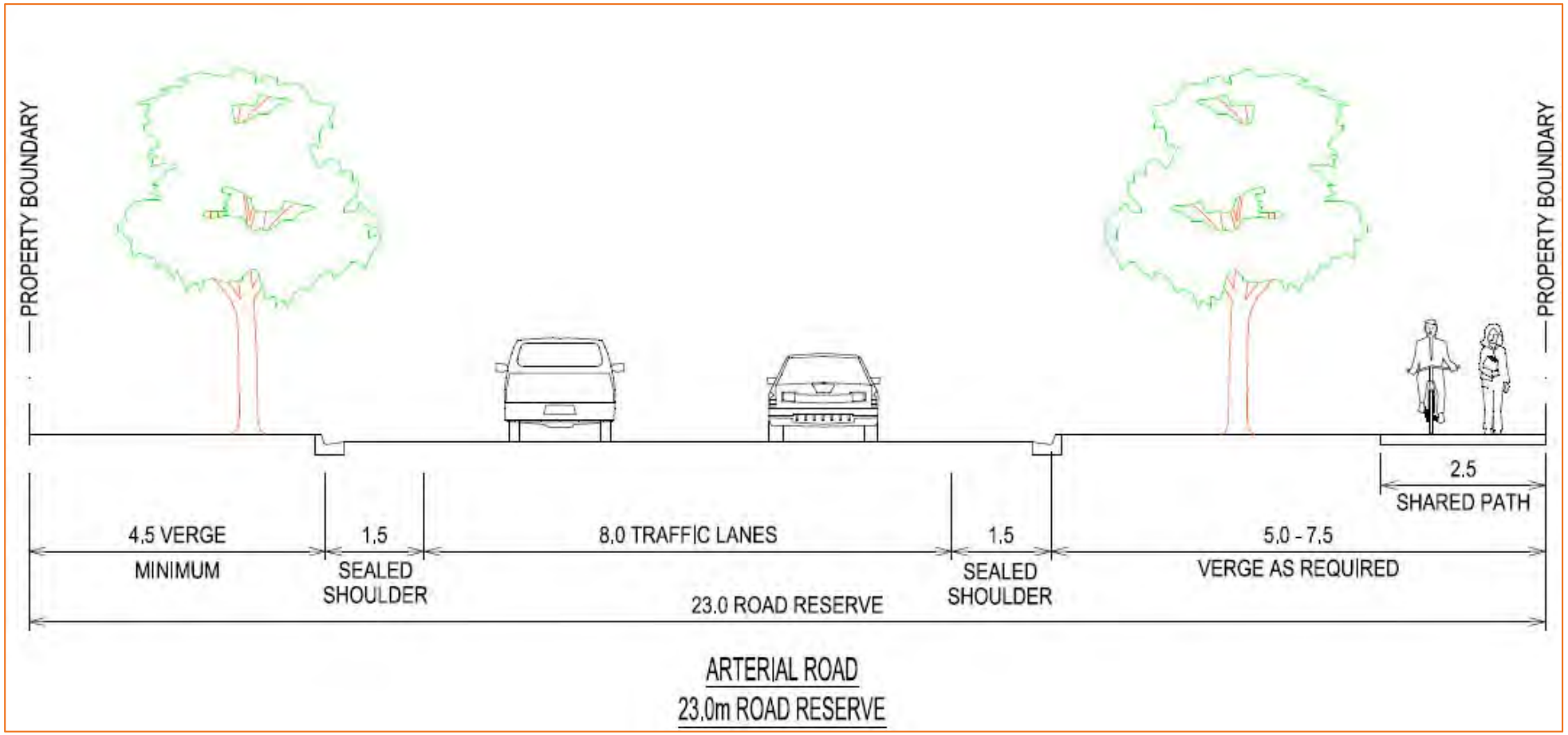


NOTE: The structure plan incorporates a significant number of off-road bicycle and pedestrian paths in order to encourage cyclists and pedestrians away from road reserves.

Figure 40 Connector Street

NOTE: The structure plan incorporates a significant number of off-road bicycle and pedestrian paths in order to encourage cyclists and pedestrians away from road reserves.

Figure 41 Arterial Road



NOTE: Shared path may be located on land adjoining the road reserve rather than within it resulting in a 20.5m road reserve.

14 ALTERNATIVE METHODS OF TRANSPORT

In conjunction with providing appropriate street forms throughout the precinct, consideration has also been given to the encouragement of use of alternative modes of transport within the development area.

These alternative modes of transport that are to be encouraged include walking, cycling, and public transport, all of which has been taken into consideration with the proposed street forms and precinct structure plan layout.

14.1 BIKE CONNECTIVITY

The precinct structure plan has been designed to accommodate future cyclist connectivity within the area via the provision of a number of both on and off street bicycle routes. Furthermore, all major street forms have been designed with the provision of shared paths to provide safe, off road cycling routes.

These routes will aim to encourage the use of cycling as an alternate means of transport throughout the area. Figure 42 shows the location of dedicated bike and walking paths within the precinct plan and wider surrounding area.

14.2 PEDESTRIAN CONNECTIVITY

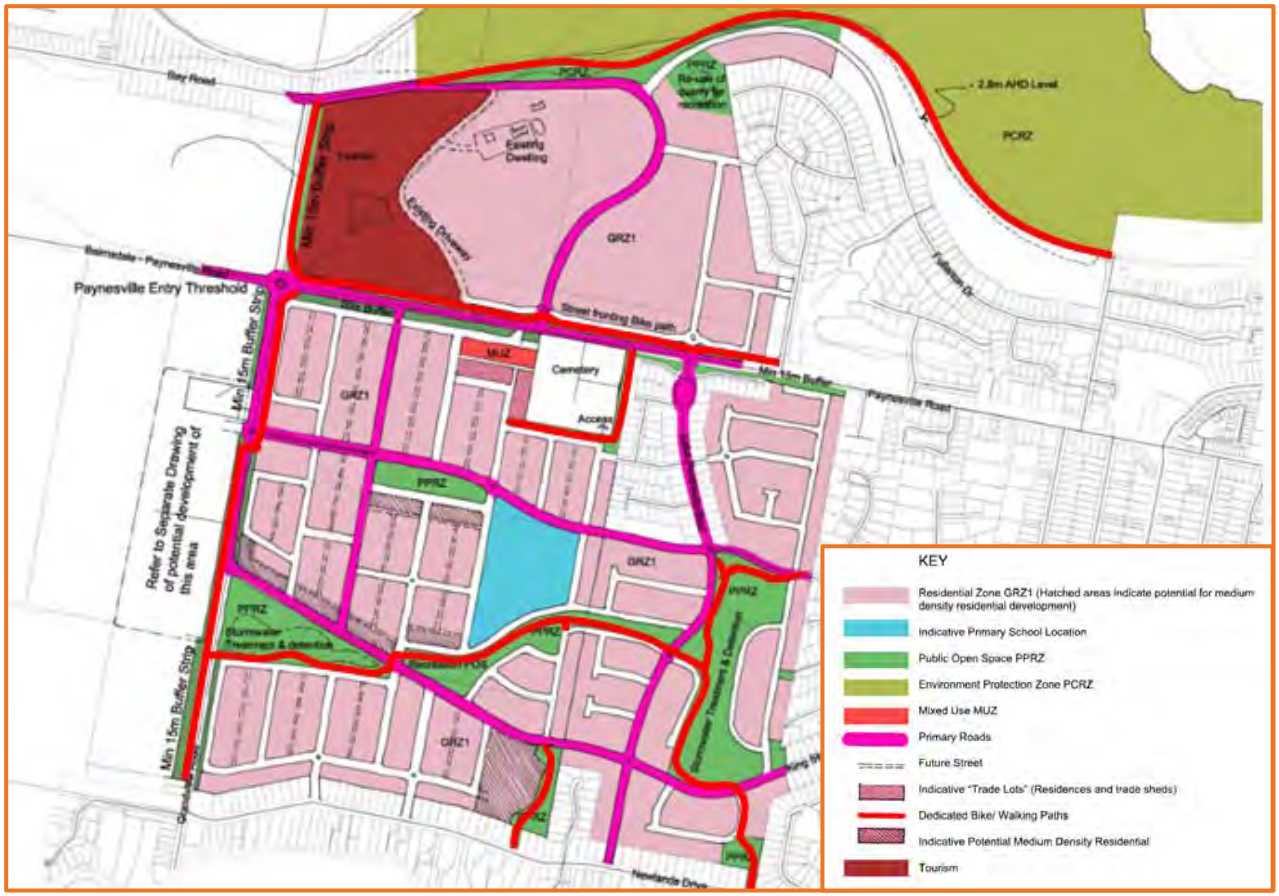
All street forms have been designed to encourage pedestrian use via the provision of pedestrian footpaths on the side of the road reserve.

These footpaths will connect to the existing pedestrian network providing connectivity throughout the precinct and the wider Paynesville area.

As previously mentioned, a number of off-road bicycle paths are to be provided throughout the precinct. In addition to providing cycling access these paths will also provide a convenient form of pedestrian access throughout the wider area.

Subsequently, as previously mentioned, Figure 42 shows the location of dedicated pedestrian and bicycle paths within the precinct plan with additional pedestrian paths also to be provided adjacent the proposed streets.

Figure 42 Bike/Pedestrian Connectivity Plan



14.3 BUS CONNECTIVITY

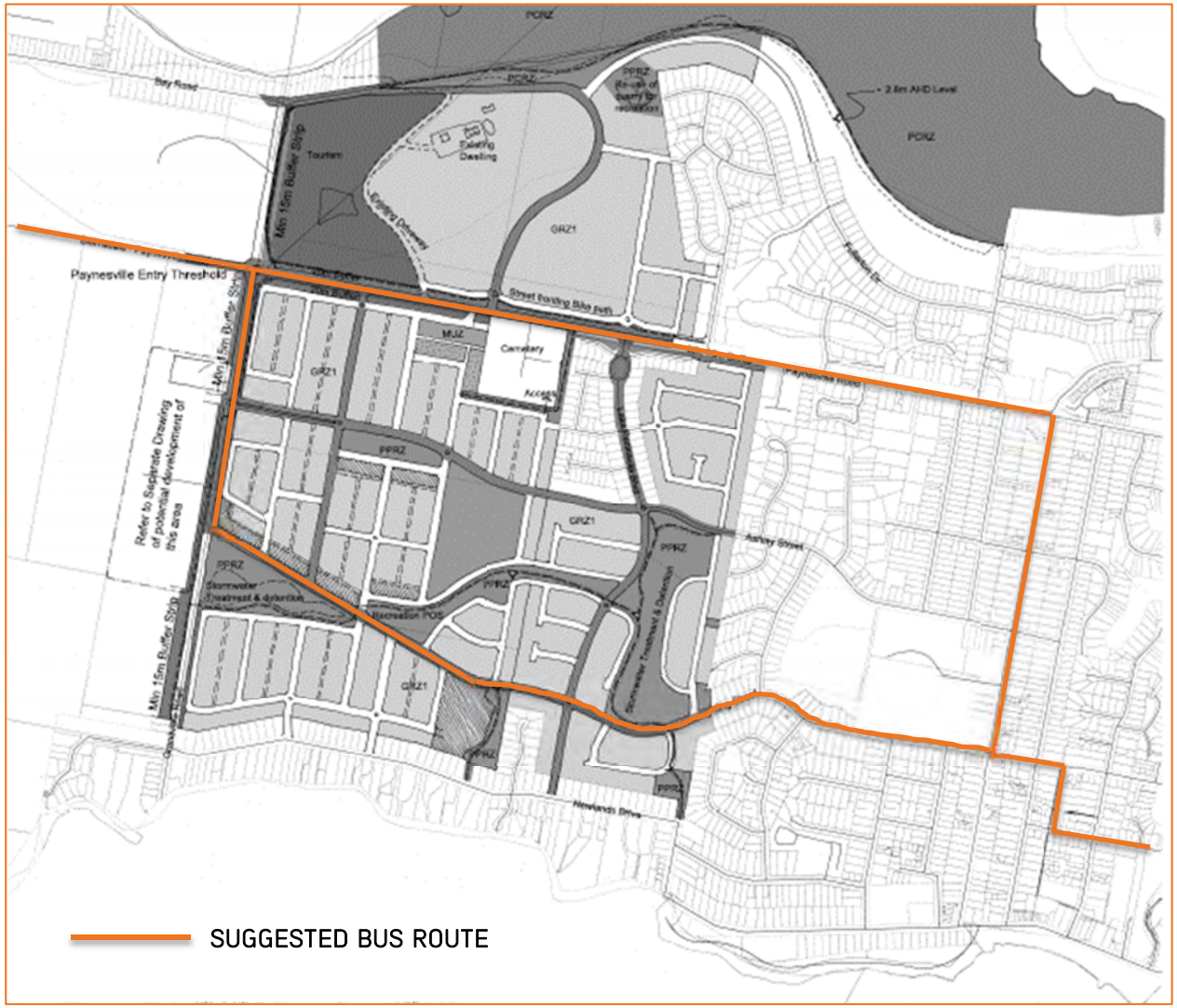
Bus connectivity is to be well facilitated throughout the precinct via the provision of street forms and intersections which have been designed in order to accommodate bus movements when future bus paths throughout the precinct are prepared.

Furthermore, the street forms as proposed will be adequate to accommodate alterations to accommodate bus stops as required.

In order to comply with the design requirements within the IDM and Planning Scheme, bus routes will need to be directed such that at least 90% of residents are no more than 400 metres from a bus route.

Subsequently, Figure 43 has been prepared showing a potential bus route for the growth precinct. The route will allow for the existing route to continue as per its existing path, with a new section provided through the development precinct.

Figure 43 Suggested Bus Route



15 TRAFFIC CALMING

Review of the existing street configuration within the Paynesville area has indicated that at present, the street alignment lends itself to vehicles using residential streets, rather than the main streets, when travelling to and from the town centre.

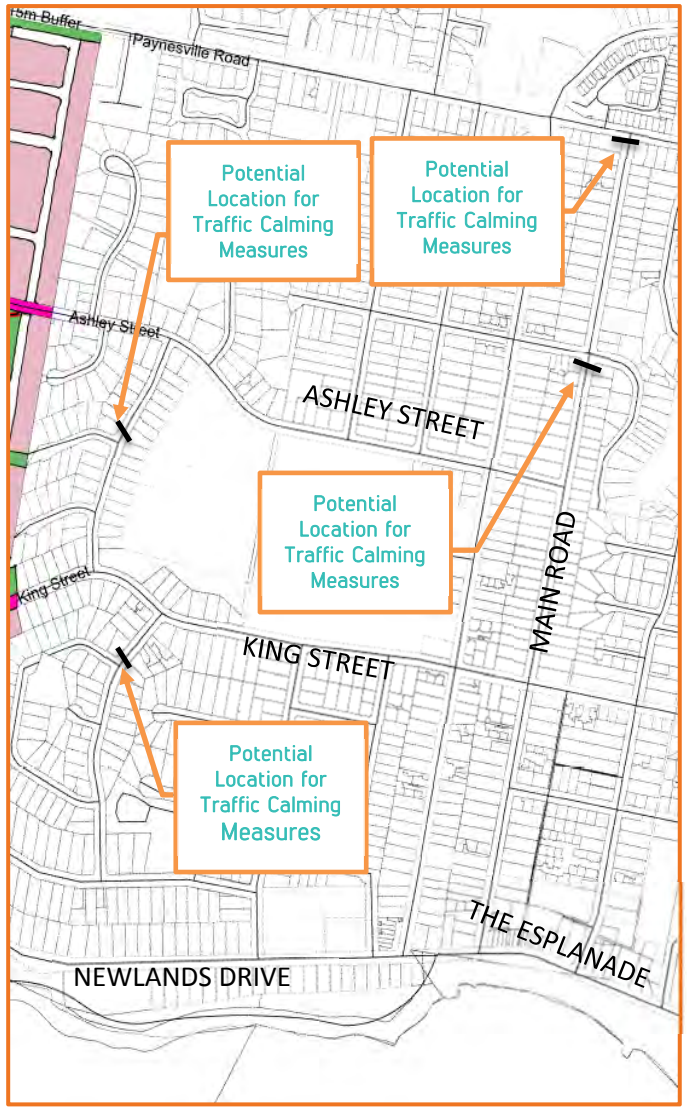
Subsequently, as the population within Paynesville grows, there is the possibility that additional vehicles will utilise these residential streets when travelling to and from the town centre.

In order to combat these impacts, the following mitigation is proposed.

- Residential streets near the growth area, other than King Street and Ashley Street, may require the use of traffic calming measures in order to reduce the likelihood that these streets are used for rat-running. The introduction of these measures will be based on monitoring of roads likely to be affected in order to determine if and when these measures should be implemented.
- In order to direct traffic onto Main Road, rather than surrounding street such as Langford Parade, it is suggested that traffic calming measures are used in order to restrict direct access to the town centre from these streets and to direct traffic back to the main streets proposed.
- Figure 44 following shows the potential location where traffic calming measures may be utilised within the area surrounding Paynesville. These measures will aim to reduce the likelihood that these routes can be used as potential shortcuts when travelling to/from the town centre, and will instead direct traffic back onto the main roads that are to be provided.
- Road widening to take place on main travel routes in order to encourage use of these roads over the use of residential streets.
- Modified cross sections can be used in locations where widening of road reserves are not practical in order to ensure that private property is not lost. Plans showing the impacts of the arterial road on Main Road and Paynesville Road are attached in APPENDIX 5.

Subsequently, there are expected to be adequate options available in order to mitigate the few potential impacts to the wider area that may be caused through development of the growth area.

Figure 44 Potential Location of Traffic Calming Measures



16 COSTING

SALT has been provided with costing for each intersection upgrades that have been recommended for inclusion within the DCP as part of the precinct structure plan.

These costings are as follows:

- Intersection Bairnsdale–Paynesville Road and Grandview Road;
  - $630,000
- Intersection Ashley Street and Main Road;
  - $250,000
- Intersection King Street and Main Road;
  - $280,000
- Intersection Grandview Road and the ultimate continuation of Ashley Street.
  - $380,000

Overall, these works equate to a total of $1,540,000. Further to the above, it is considered that an additional 20% contingency should be included to account for design costs, authority approvals, street lighting, additional conduits, and soil stability.

Subsequently, the works will come to a total expected cost of $1,848,000.

These upgrades will benefit both existing and future residents of Paynesville and subsequently funding for these works will come from local Council and the growth areas development. Sharing of costs for these works are to be detailed within the proposed DCP.

17 CONCLUSION

Based on the preceding traffic analysis, the following conclusions have been prepared in relation to the Paynesville Precinct Structure Plan:

- Based on a traffic generation rate of 7 daily vehicle movements per lot, the development precinct is ultimately anticipated to generate in the order of 11,375 additional traffic movements within the surrounding street network. This volume of traffic movements is based on growth in both the Paynesville and Eagle Point growth areas.
- In order to accommodate the additional traffic as anticipated to be generated, upgrades will be required to several existing roads and intersections within the area surrounding the development area.
- Five (5) street forms have been developed for use throughout the precinct. These forms have been designed based on review of the Planning Scheme, IDM, and existing street cross sections. Their locations have been determined based on anticipated traffic volumes to travel along each section.
- Costs for upgrades of roads and intersections outside of the precinct development area are to be covered via a development contribution scheme with payments shared between existing stakeholders including Council, the growth area precinct, and existing landholders.

APPENDIX 1 TRAFFIC DISTRIBUTIONS

Table 11 Paynesville AM Peak Hour Traffic Volumes

Intersection No.	APPROACH																TOTAL
	NORTH				EAST				SOUTH				WEST				
	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	
7	–	–	–	–	3	222	–	–	35	–	7	–	–	188	13	–	468
8	3	–	8	–	–	217	3	–	–	–	–	–	4	191	–	–	426
9	1	19	30	–	5	37	3	–	141	6	1	–	19	25	123	–	410
10	1	159	2	–	1	2	3	–	18	159	1	–	1	2	30	–	379
11	106	79	5	–	5	7	114	–	3	46	2	–	16	13	1	–	397
12	78	–	6	–	–	43	46	–	–	–	–	–	4	31	–	–	208
13	31	–	27	–	–	56	31	–	–	–	–	–	39	95	–	–	279
14	56	55	1	–	5	12	57	–	1	59	5	–	1	6	4	–	262
15	4	8	14	–	23	48	1	–	73	7	27	–	8	50	81	–	344

Table 12 Paynesville PM Peak Hour Traffic Volumes

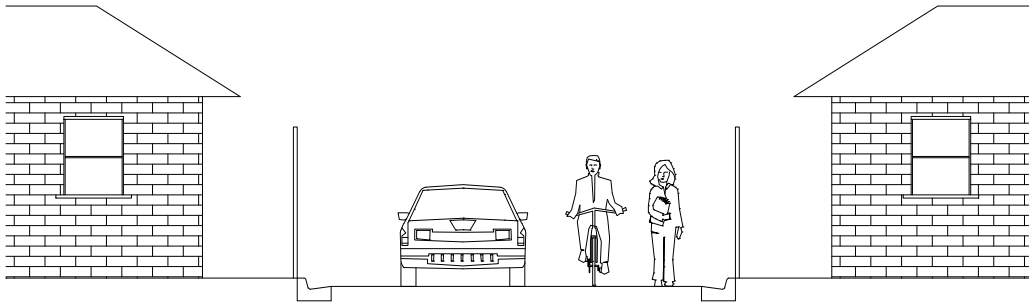
Intersection No.	APPROACH																TOTAL
	NORTH				EAST				SOUTH				WEST				
	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	
7	–	–	–	–	10	156	–	–	26	–	8	–	–	238	42	–	480
8	7	–	6	–	–	12	160	–	–	–	–	–	3	243	–	–	431
9	7	13	19	–	1	26	10	–	138	8	2	–	34	44	201	–	503
10	1	210	4	–	1	1	1	–	25	164	3	–	1	6	26	–	443
11	135	92	11	–	3	24	120	–	3	58	2	–	13	12	3	–	476
12	93	–	4	–	–	75	54	–	–	–	–	–	8	58	–	–	292
13	49	–	55	–	–	72	22	–	–	–	–	–	48	107	–	–	353
14	68	71	2	–	24	18	63	–	8	89	9	–	1	1	6	–	360
15	1	6	6	–	34	51	5	–	102	11	39	–	11	60	98	–	424

APPENDIX 2 TUBE COUNT DATA

Table 13 Paynesville – Tube Count Data

Location No.	Direction	Count Date							Total			Average			Typical Weekend (31/1 & 1/2) Comparison	
		Fri 23/01/15	Sat 24/01/15	Sun 25/01/15	Mon 26/01/15	Tues 27/01/15	Wed 28/01/15	Thurs 29/01/15	7-Day	Weekday	Long Weekend	7-Day	Weekday	Long Weekend	Total	Average
8	North	351	304	265	276	318	381	377	2272	1514	758	325	303	385	551	280
	South	352	300	270	271	316	371	375	2255	1509	746	322	302	379	541	276
	Total	**703**	**604**	**535**	**547**	**634**	**752**	**752**	**4527**	**3023**	**1504**	**647**	**605**	**764**	**1092**	**556**
9	West	2431	2953	2727	2813	2873	2466	2404	18667	13797	4870	2666	2760	2438	4192	2100
	East	2135	2903	2824	2947	3245	2738	2494	19286	14054	5232	2756	2809	2621	4330	2173
	Total	**4566**	**5856**	**5551**	**5760**	**6118**	**5204**	**4898**	**37953**	**27851**	**10102**	**5422**	**5569**	**5059**	**8522**	**4273**
10	North	1963	1880	1779	1786	1867	1850	1821	12946	9275	3671	1849	1855	1840	2957	1484
	South	1791	1905	1897	1952	2255	2159	1915	13874	9800	4074	1982	1961	2042	3062	1537
	Total	**3754**	**3785**	**3676**	**3738**	**4122**	**4009**	**3736**	**26820**	**19075**	**7745**	**3831**	**3816**	**3882**	**6019**	**3021**
11	North	920	751	784	762	789	892	757	5655	4006	1649	807	801	832	1309	662
	South	1173	991	949	998	1126	1278	1181	7696	5237	2459	1101	1050	1237	1833	923
	Total	**2093**	**1742**	**1733**	**1760**	**1915**	**2170**	**1938**	**13351**	**9243**	**4108**	**1908**	**1851**	**2069**	**3142**	**1585**
12	West	1092	1003	882	934	1180	1211	1212	7514	5091	2423	1073	1019	1216	1864	938
	East	659	711	689	721	834	782	708	5104	3614	1490	727	721	750	1200	604
	Total	**1751**	**1714**	**1571**	**1655**	**2014**	**1993**	**1920**	**12618**	**8705**	**3913**	**1800**	**1740**	**1966**	**3064**	**1542**
13	West	1288	1107	1110	1091	1188	1299	1069	8152	5784	2368	1165	1157	1191	1921	966
	East	1594	1367	1314	1292	1669	1850	1603	10689	7236	3453	1528	1446	1732	2592	1302
	Total	**2882**	**2474**	**2424**	**2383**	**2857**	**3149**	**2672**	**18841**	**13020**	**5821**	**2693**	**2603**	**2923**	**4513**	**2268**
14	West	808	726	658	710	765	860	732	5259	3667	1592	751	732	804	1221	617
	East	644	594	559	545	654	757	604	4357	2996	1361	622	597	687	1023	518
	Total	**1452**	**1320**	**1217**	**1255**	**1419**	**1617**	**1336**	**9616**	**6663**	**2953**	**1373**	**1329**	**1491**	**2244**	**1135**
15	North	551	601	563	561	611	587	557	4031	2887	1144	578	577	579	908	459
	South	371	472	442	428	477	475	408	3073	2190	883	441	436	447	702	357
	Total	**922**	**1073**	**1005**	**989**	**1088**	**1062**	**965**	**7104**	**5077**	**2027**	**1019**	**1013**	**1026**	**1610**	**816**

APPENDIX 3 ROAD CROSS SECTIONS



ACCESS LANE
5.5m ROAD RESERVE
SCALE 1:100

ACCESS LANE	Proposed	Planning Scheme	I.D.M.
DESCRIPTION:	A SIDE OR REAR LANE PRINCIPALLY TO PROVIDE ACCESS TO ONSITE PARKING FOR LOTS WITH PRIMARY FRONTAGE ON ANOTHER STREET.		
TRAFFIC VOLUME:	300 VEHICLES PER DAY	300 VEHICLES PER DAY	300 VEHICLES PER DAY
TARGET SPEED:	10 KM/H	10 KM/H	N/A
VERGE WIDTH:	NO VERGE REQUIRED	NONE	NONE
PARKING:	NOT PERMITTED	NO PARKING	KERBSIDE - ONE SIDE
PEDESTRIAN AND CYCLING PROVISION:	CARRIAGEWAY IS DESIGNED AS A SHARED ZONE AND IS TO BE APPROPRIATELY SIGNED AS SUCH	SHARED CARRIAGEWAY	SHARED CARRIAGEWAY

SALT 3

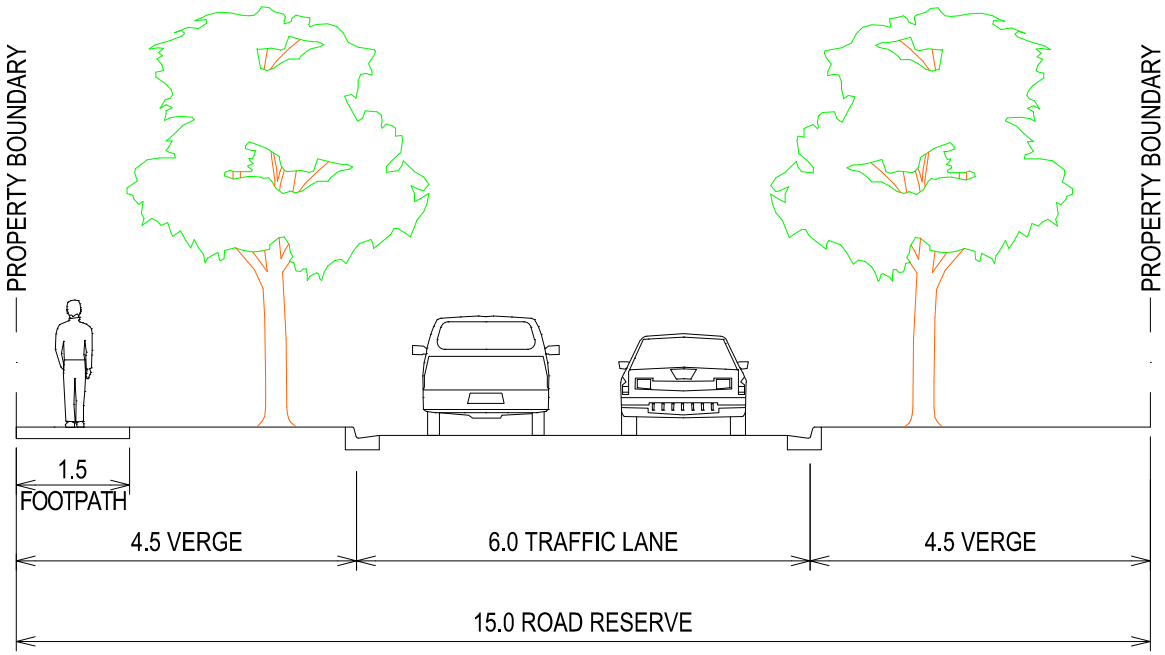
15001 SK005

ACCESS LANE
TYPICAL CROSS
SECTION

C.H. 22.01.2016

0 1 2 4m

SCALE 1:100 @A4



ACCESS PLACE
15.0m ROAD RESERVE
SCALE 1:100

ACCESS PLACE	Proposed	Existing	Planning Scheme	I.D.M.
DESCRIPTION:	A MINOR STREET PROVIDING LOCAL RESIDENTIAL ACCESS TYPICALLY OFF A LARGER ACCESS STREET			
TRAFFIC VOLUME:	300 - 1000 VEHICLES PER DAY	300 - 1000 VEHICLES PER DAY	300 - 1000 VEHICLES PER DAY	300 VEHICLES PER DAY
TARGET SPEED:	15 KM/H	40KM/H	15KM/H	N/A
VERGE WIDTH:	4.5m WIDE VERGE ON BOTH SIDES	4.5m MINIMUM ON BOTH SIDES OF THE CARRIAGEWAY	7.5m MIN TOTAL VERGE WIDTH ACROSS CARRIAGEWAY	3.5m MIN PER SIDE
PARKING:	KERBSIDE ON ONE SIDE OF THE ROAD	KERBSIDE AS REQUIRED	KERBSIDE AS REQUIRED - ONE SIDE ONLY	KERBSIDE AS REQUIRED - ONE SIDE ONLY
PEDESTRIAN AND CYCLING PROVISION:	1.5m WIDE FOOTPATH ON 1 SIDE OF THE CARRIAGEWAY. CYCLISTS TO BE ACCOMMODATED ON ROAD.	PATH ON ONE SIDE	FOOTPATHS ON BOTH SIDES	FOOTPATH ON BOTH SIDES

SALT 3

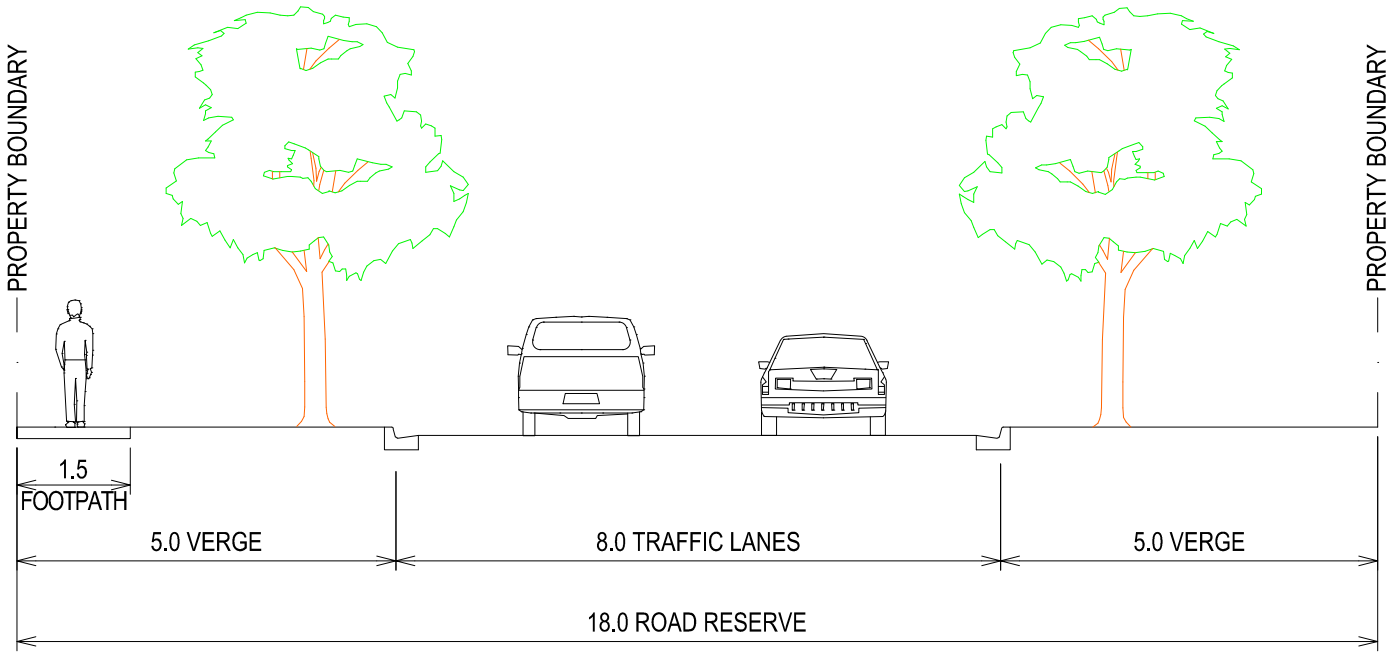
15001 SK006

ACCESS PLACE
TYPICAL CROSS
SECTION

C.H. 22.01.2016

0 1 2 4m

SCALE 1:100 @A4



ACCESS STREET
18.0m ROAD RESERVE
SCALE 1:100

ACCESS STREET	Proposed	Existing	Planning Scheme	I.D.M.
DESCRIPTION:	A STREET PROVIDING LOCAL RESIDENTIAL ACCESS WITHIN A LOW SPEED ENVIRONMENT			
TRAFFIC VOLUME:	1000 - 3000 VEHICLES PER DAY	1000 - 3000 VEHICLES PER DAY	1000 - 3000 VEHICLES PER DAY	1000 - 2500 VEHICLES PER DAY
TARGET SPEED:	40 KM/H	40KM/H	30KM/H - 40KM/H	N/A
VERGE WIDTH:	4.5m WIDE VERGE ON BOTH SIDES	4.5m BOTH SIDES OF CARRIAGEWAY	4.5m MINIMUM ON BOTH SIDES OF THE CARRIAGEWAY	AS REQUIRED
PARKING:	KERBSIDE ON BOTH SIDES OF THE ROAD	KERBSIDE AS REQUIRED	KERBSIDE	KERBSIDE AS REQUIRED
PEDESTRIAN AND CYCLING PROVISION:	1.5m WIDE FOOTPATH ON 1 SIDE OF THE CARRIAGEWAY. CYCLISTS TO BE ACCOMMODATED ON ROAD.	PATH ON ONE SIDE	FOOTPATHS ON BOTH SIDES	FOOTPATH ON BOTH SIDES

SALT³

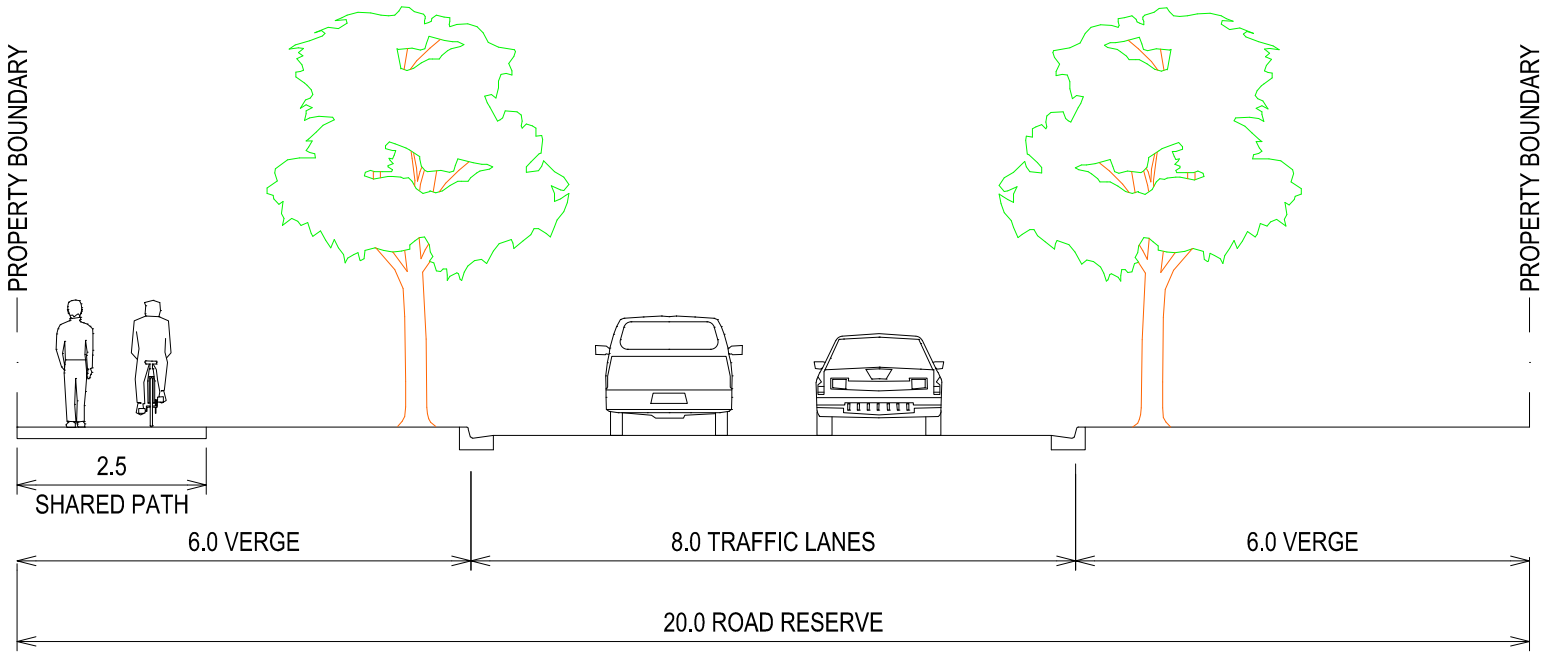
15001 SK007

ACCESS STREET
TYPICAL CROSS
SECTION

C.H. 22.01.2016

0 1 2 4m

SCALE 1:100 @A4



CONNECTOR STREET WITH INDENTED PARKING
20.0m ROAD RESERVE
SCALE 1:100

CONNECTOR STREET	Proposed	Existing	Planning Scheme	I.D.M.
DESCRIPTION:	A STREET THAT CARRIES HIGHER VOLUMES OF TRAFFIC & TYPICALLY CONNECTS ACCESS PLACES & STREETS BETWEEN NEIGHBOURHOODS			
TRAFFIC VOLUME:	3000 - 6000 VEHICLES PER DAY	3000 - 6000 VEHICLES PER DAY	3000 - 7000 VEHICLES PER DAY	2500 - 6000 VEHICLES PER DAY
TARGET SPEED:	50 KM/H (REDUCED TO 40KM/H AT SCHOOLS)	60 or 50 KM/H (REDUCED TO 40KM/H AT SCHOOLS)	60 or 50 KM/H (REDUCED TO 40KM/H AT SCHOOLS)	N/A
VERGE WIDTH:	MINIMUM 6.0m ON BOTH SIDES OF THE CARRIAGEWAY	6.0m BOTH SIDES OF CARRIAGEWAY	6.0m MINIMUM ON BOTH SIDES OF THE CARRIAGEWAY	6.0m MINIMUM ON BOTH SIDES OF THE CARRIAGEWAY
PARKING:	KERBSIDE PARKING ON BOTH SIDES OF THE ROAD	KERBSIDE AS REQUIRED	KERBSIDE OR INDENTED AS REQUIRED	KERBSIDE AS REQUIRED
PEDESTRIAN AND CYCLING PROVISION:	2.5m WIDE SHARED PATH ON ONE SIDE OF THE CARRIAGEWAY.	PATH ON ONE SIDE	SHARED PATH ON BOTH SIDES OR FOOTPATH AND BIKE LANES	SHARED PATH BOTH SIDES

SALT³

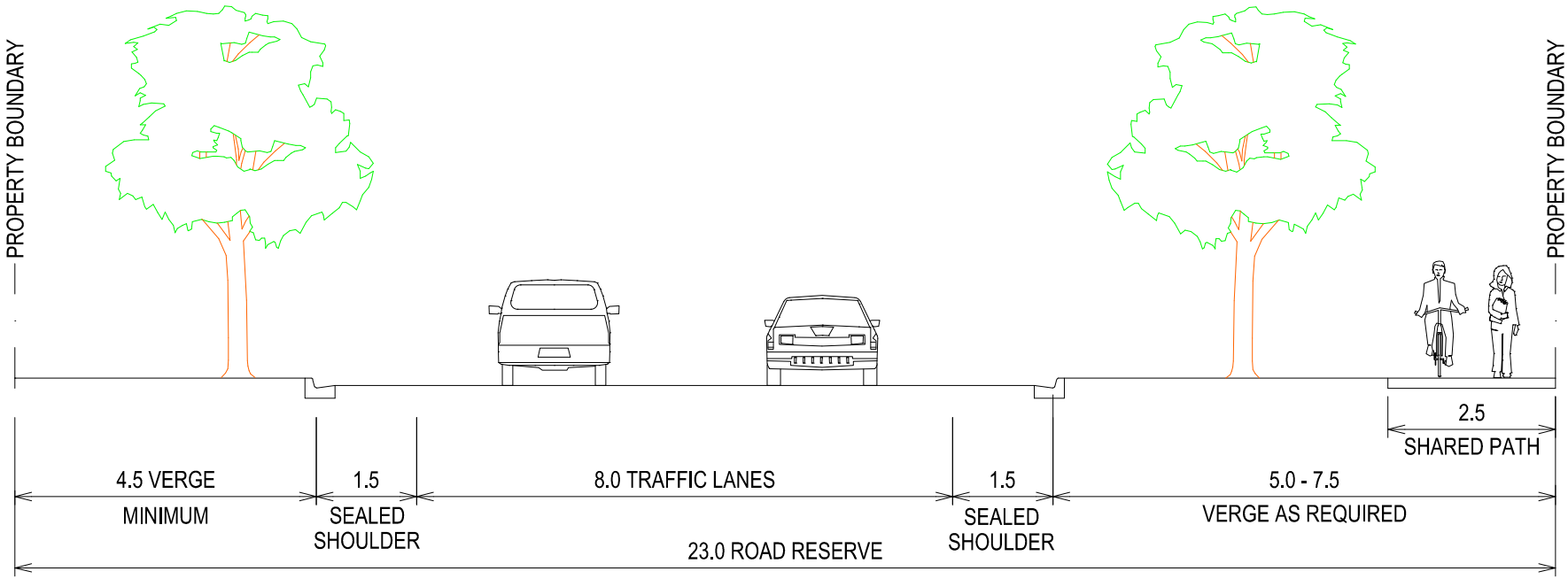
15001 SK008

CONNECTOR ROAD
TYPICAL CROSS
SECTION

C.H. 22.01.2016

0 1 2 4m

SCALE 1:100 @A4



ARTERIAL ROAD
23.0m ROAD RESERVE
SCALE 1:100

ARTERIAL ROAD	Proposed	Existing	Planning Scheme	I.D.M.
DESCRIPTION:	A MAIN THOROUGHFARE PROVIDING CONNECTION BETWEEN TOWNS AND THE WIDER SURROUNDING AREA			
TRAFFIC VOLUME:	6000+ VEHICLES PER DAY	6000+ VEHICLES PER DAY	7000+ VEHICLES PER DAY	6000 - 12000 VEHICLES PER DAY
TARGET SPEED:	AS REQUIRED	60KM/H - 80KM/H AS REQUIRED	AS REQUIRED	N/A
VERGE WIDTH:	4.5m MINIMUM ON ONE SIDE, 5.0m - 7.5m OTHER SIDE OF THE CARRIAGEWAY AS REQUIRED	4.5m ONE SIDE, MINIMUM 7.5m OTHER SIDE	AS REQUIRED	6.0m MINIMUM ON BOTH SIDES OF THE CARRIAGEWAY
PARKING:	KERBSIDE AS REQUIRED	KERBSIDE AS REQUIRED	KERBSIDE AS REQUIRED	KERBSIDE AS REQUIRED
PEDESTRIAN AND CYCLING PROVISION:	2.5m WIDE SHARED PATH TO BE PROVIDED ON ONE SIDE OF THE CARRIAGEWAY.	NO PATH AS YET	3.0m SHARED PATH EITHER SIDE OR AS REQUIRED	SHARED PATH BOTH SIDES

SALT³

15001 SK009

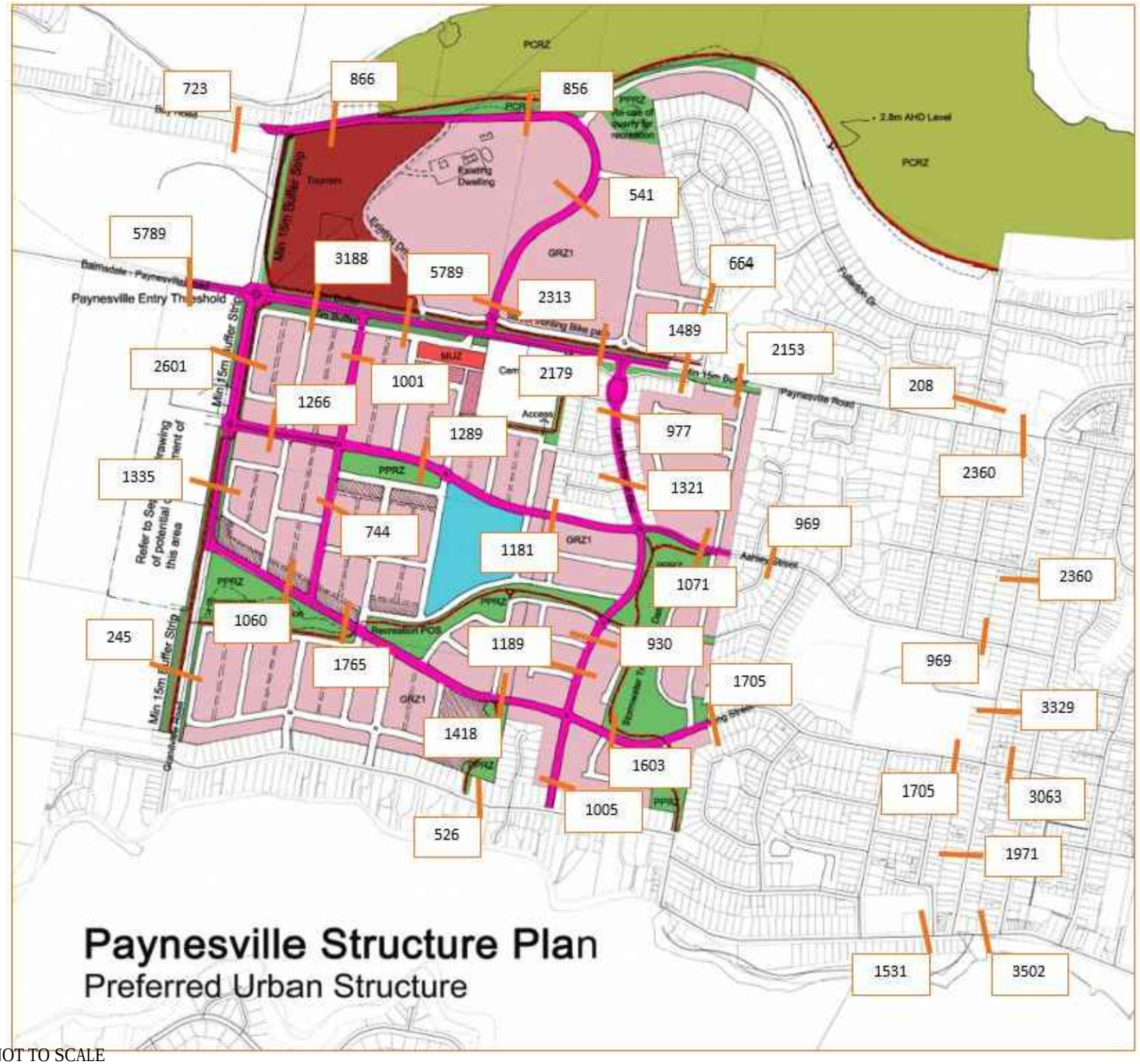
ARTERIAL ROAD
TYPICAL CROSS
SECTION

C.H. 22.01.2016

0 1 2 4m

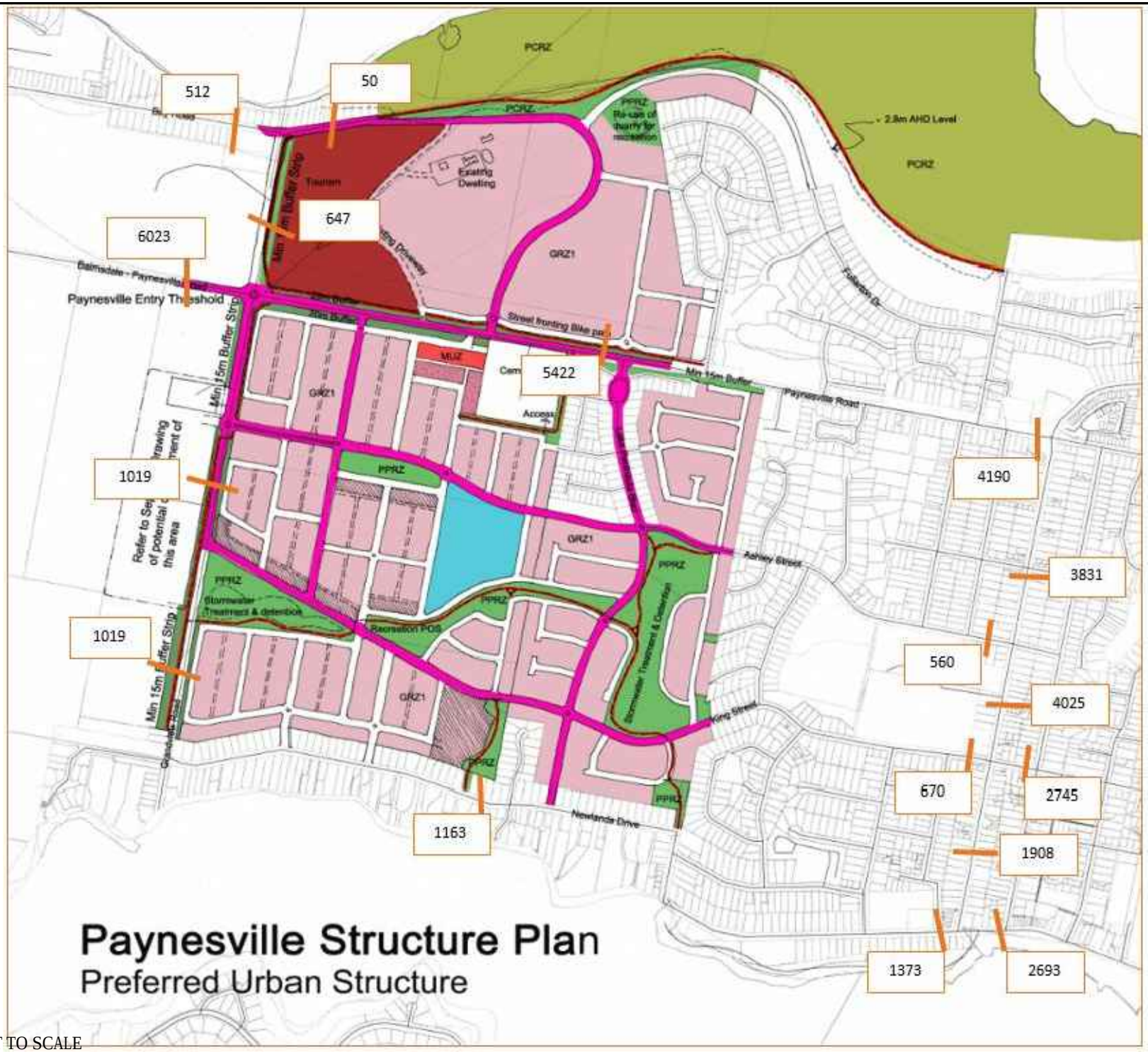
SCALE 1:100 @A4

APPENDIX 4 TRAFFIC MODEL RESULTS



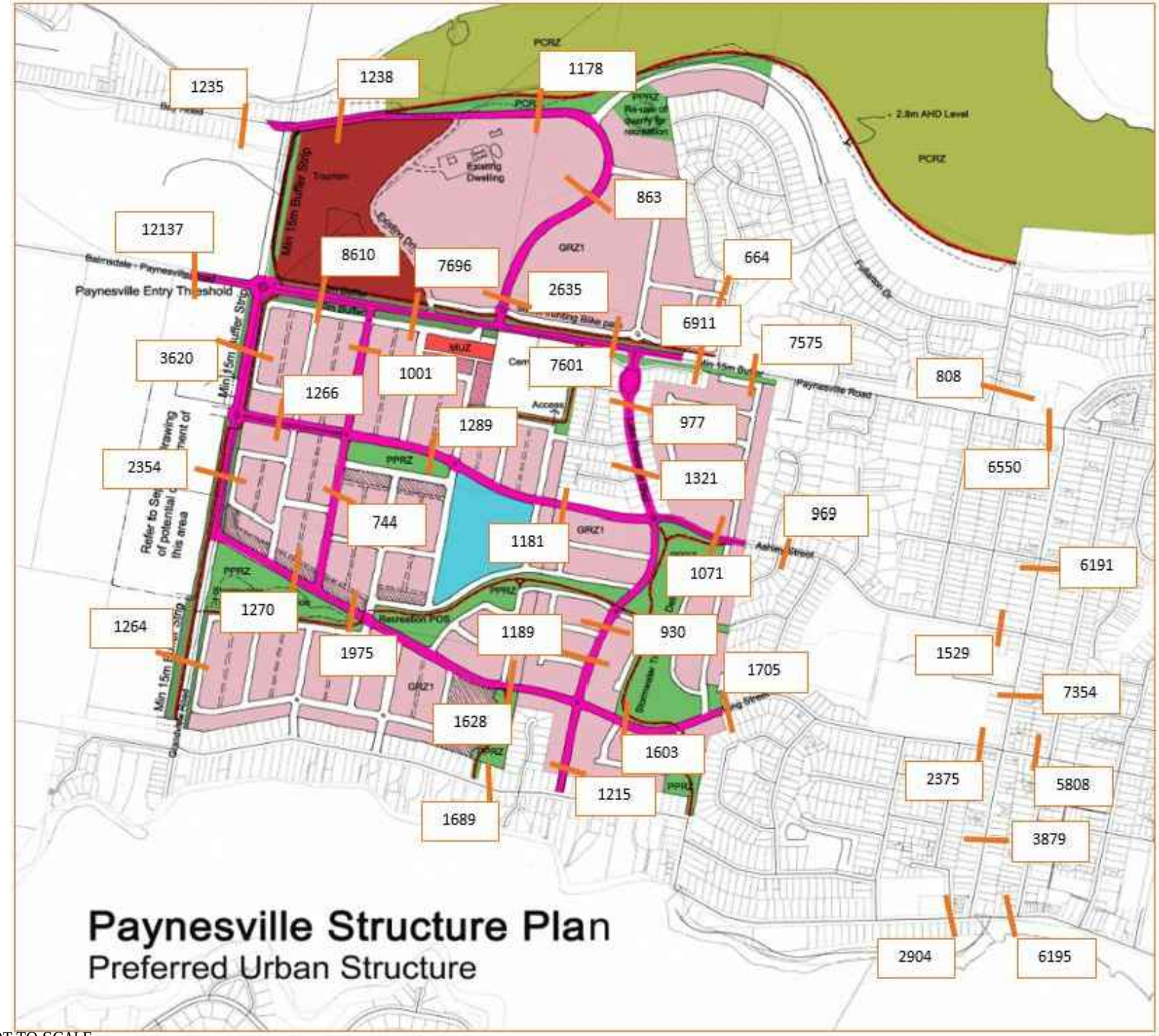
NOT TO SCALE

ESTIMATED TRAFFIC VOLUMES AND DISTRIBUTIONS - PAYNESVILLE AND EAGLE POINT



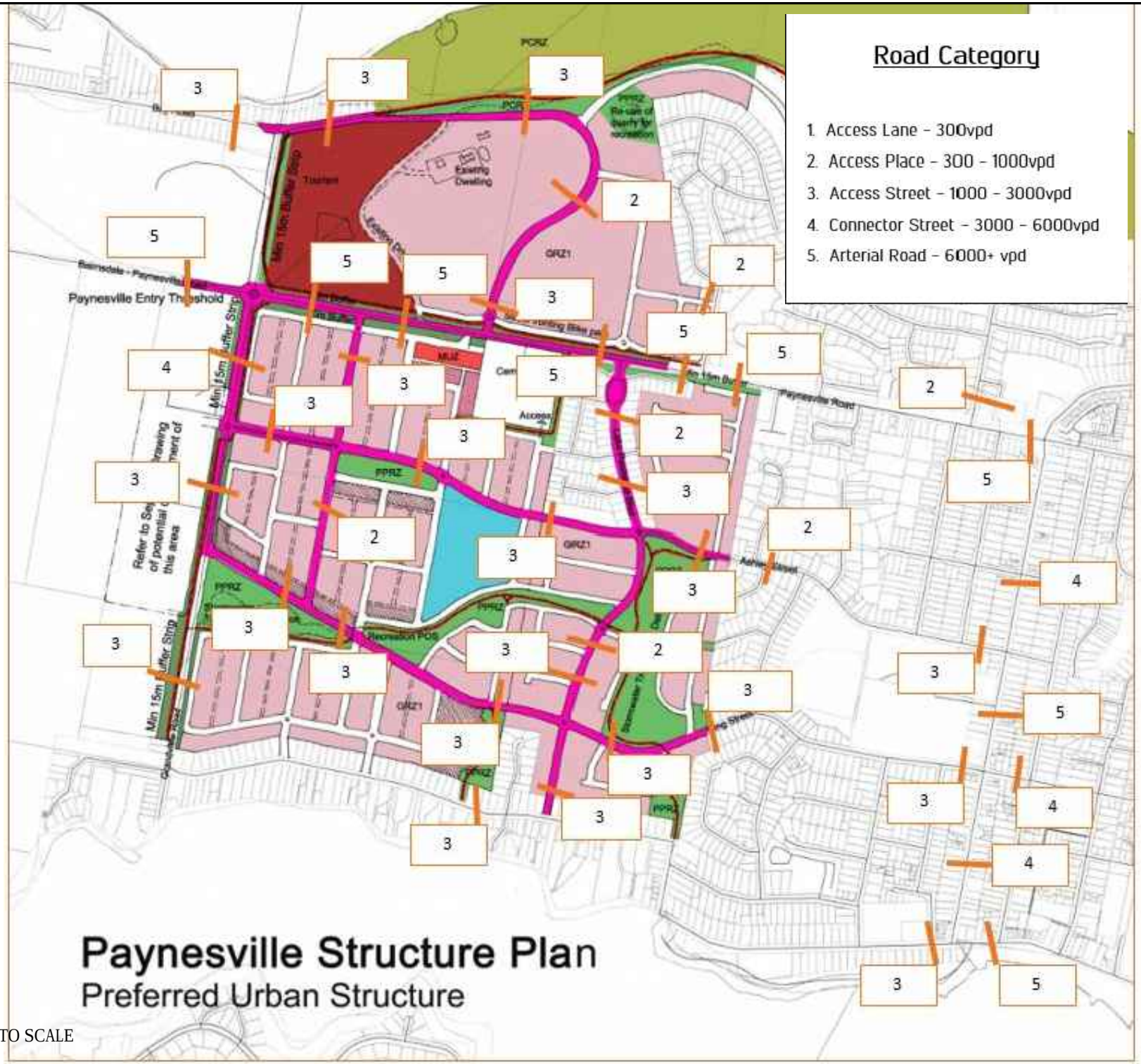
NOT TO SCALE

EXISTING TRAFFIC VOLUMES AND DISTRIBUTIONS - PAYNESVILLE AND EAGLE POINT



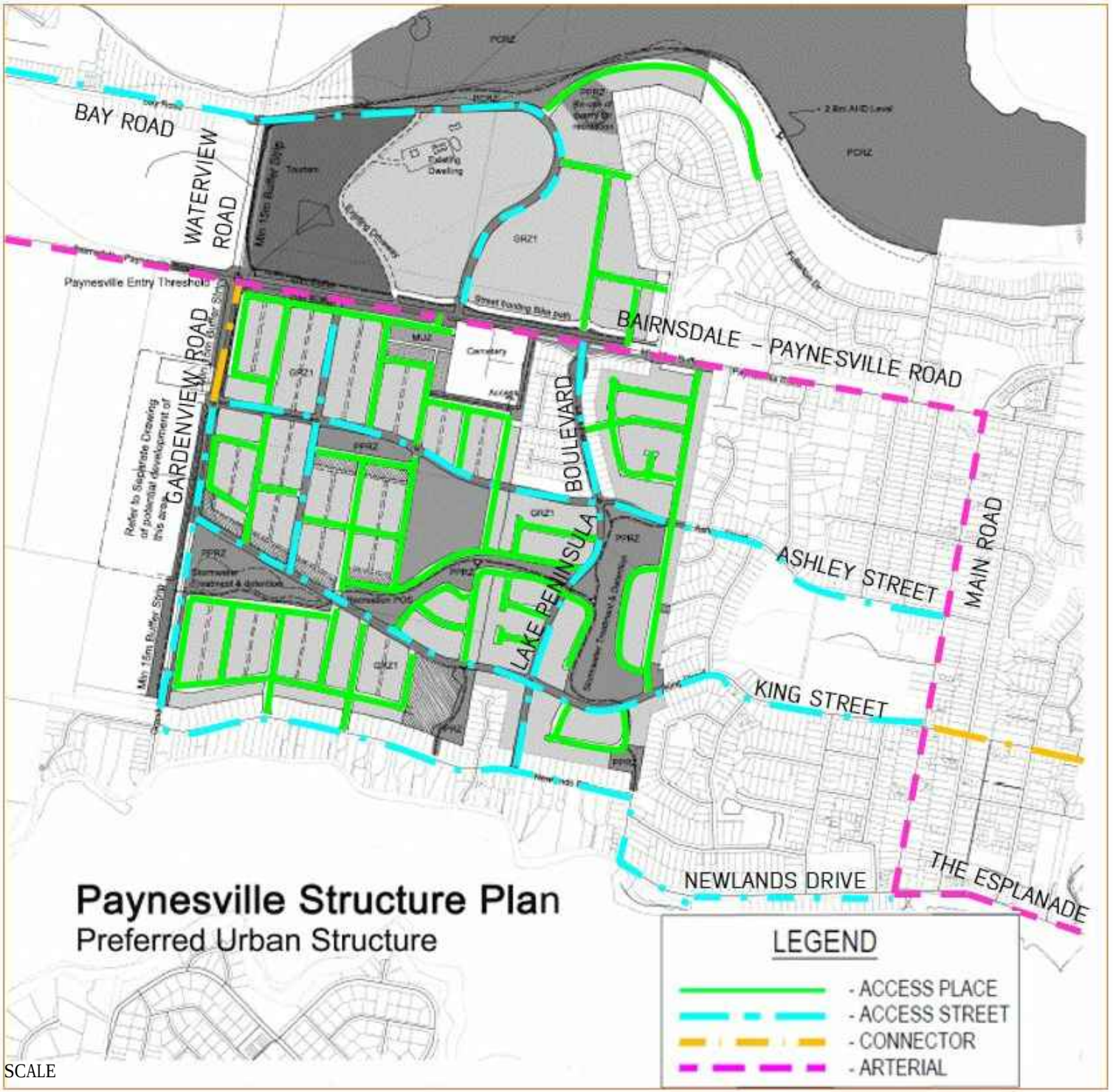
NOT TO SCALE

ANTICIPATED FUTURE TRAFFIC VOLUMES AND DISTRIBUTIONS - PAYNESVILLE AND EAGLE POINT



NOT TO SCALE

PROPOSED ROAD CATEGORIES - BASED ON ESTIMATED TRAFFIC VOLUMES



NOT TO SCALE

PROPOSED ROAD CATEGORIES - BASED ON ESTIMATED TRAFFIC VOLUMES

APPENDIX 5 PROPOSED UPGRADES

FIGURE 1

7.5m VERGE INCLUDING 2.5m SHARED PATH
1.5m SEALED SHOULDER
8.0m CARRIAGEWAY
1.5m SEALED SHOULDER
4.5m VERGE

PAYNESVILLE ROAD

CONTINUED BELOW - FIGURE 2

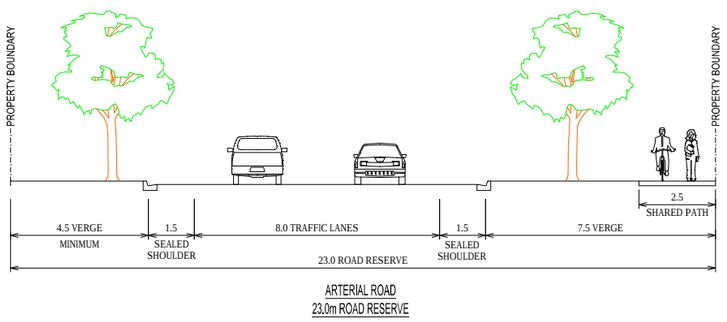
CONTINUED ABOVE - FIGURE 1

FIGURE 2

7.5m VERGE INCLUDING 2.5m SHARED PATH
1.5m SEALED SHOULDER
8.0m CARRIAGEWAY
1.5m SEALED SHOULDER
4.5m VERGE

PAYNESVILLE ROAD

CONTINUED SK011 - FIGURE 3



15001 SK010

PAYNESVILLE ROAD
PROPOSED 23.0m ARTERIAL ROAD RESERVE
ALIGNMENT AND IMPACT
C.H. 27.01.2016

0 20 40m

SCALE 1:1000 @A3

N

SALT 3

CONTINUED SK010 - FIGURE 2

FIGURE 3

7.5m VERGE INCLUDING 2.5m SHARED PATH
1.5m SEALED SHOULDER
8.0m CARRIAGEWAY
1.5m SEALED SHOULDER
4.5m VERGE

PAYNESVILLE ROAD

CONTINUED BELOW - FIGURE 4

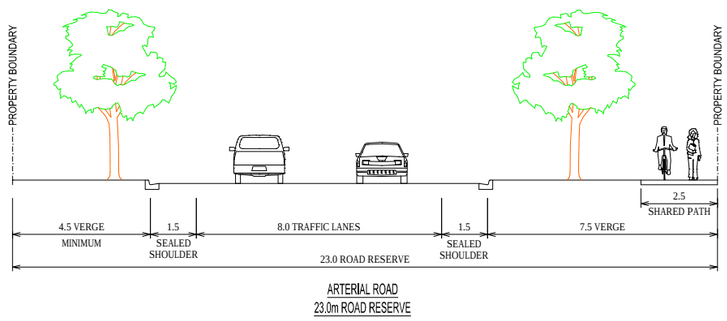
CONTINUED ABOVE - FIGURE 3

FIGURE 4

7.5m VERGE INCLUDING 2.5m SHARED PATH
1.5m SEALED SHOULDER
8.0m CARRIAGEWAY
1.5m SEALED SHOULDER
4.5m VERGE

PAYNESVILLE ROAD

CONTINUED SK012 - FIGURE 5



15001 SK011

PAYNESVILLE ROAD
PROPOSED 23.0m ARTERIAL ROAD RESERVE
ALIGNMENT AND IMPACT
C.H. 27.01.2016

0 20 40m

SCALE 1:1000 @A3

N

SALT 3

CONTINUED SK011 - FIGURE 4

FIGURE 5

7.5m VERGE INCLUDING 2.5m SHARED PATH
1.5m SEALED SHOULDER
8.0m CARRIAGEWAY
1.5m SEALED SHOULDER
4.5m VERGE

PAYNESVILLE ROAD

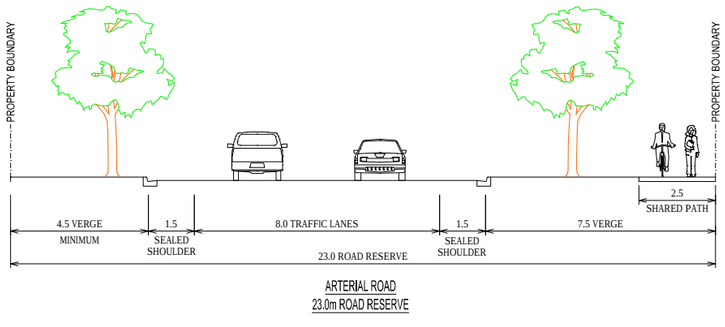
CONTINUED BELOW - FIGURE 6

CONTINUED ABOVE - FIGURE 5

FIGURE 6

7.5m VERGE INCLUDING 2.5m SHARED PATH
1.5m SEALED SHOULDER
8.0m CARRIAGEWAY
1.5m SEALED SHOULDER
4.5m VERGE

PAYNESVILLE ROAD



ARTERIAL ROAD
23.0m ROAD RESERVE

15001 SK012

PAYNESVILLE ROAD
PROPOSED 23.0m ARTERIAL ROAD RESERVE
ALIGNMENT AND IMPACT
C.H. 27.01.2016

0 20 40m

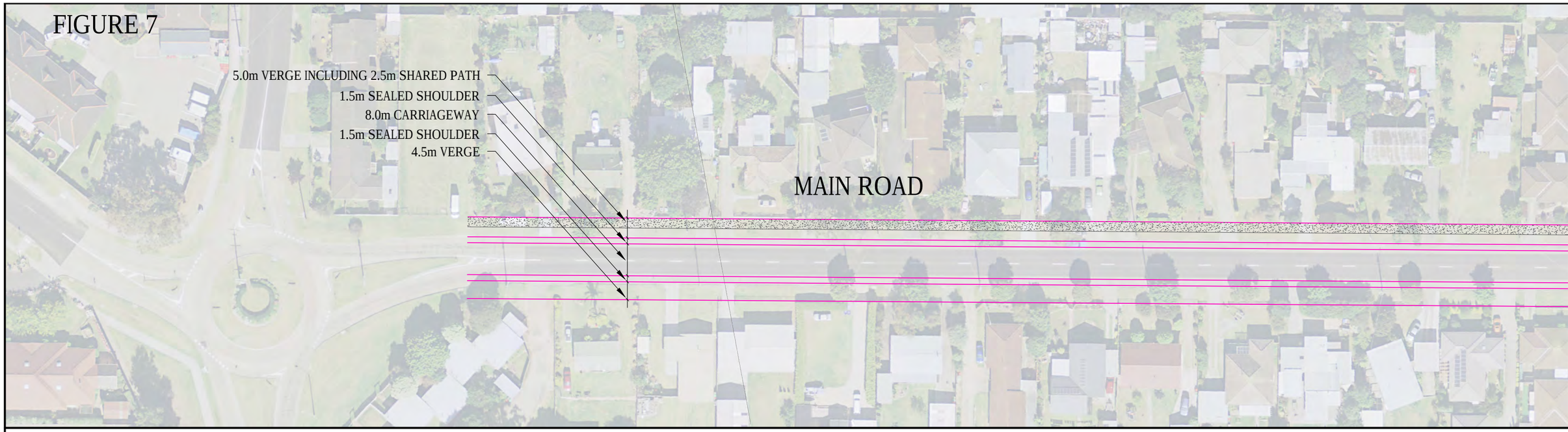
SCALE 1:1000 @A3

N

SALT 3

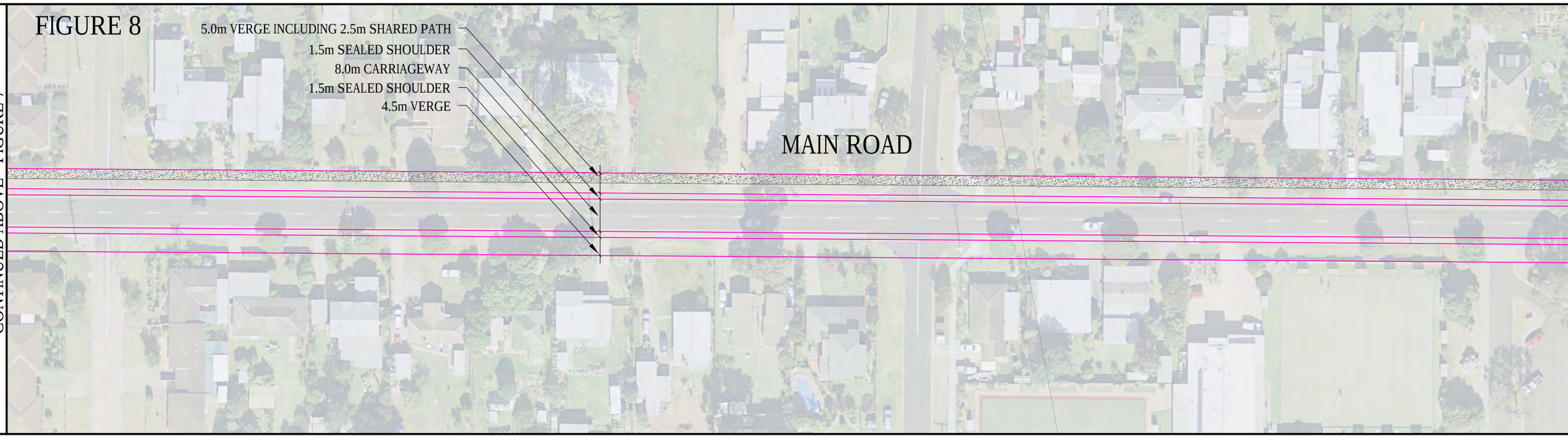
CONTINUED BELOW - FIGURE 8

FIGURE 7

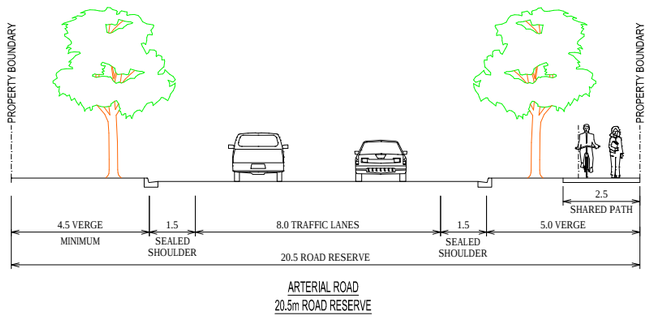


CONTINUED ABOVE - FIGURE 7

FIGURE 8



CONTINUED SK014 - FIGURE 9



15001 SK013

MAIN ROAD
PROPOSED 20.5m ARTERIAL ROAD RESERVE
ALIGNMENT AND IMPACT
C.H. 27.01.2016

0 20 40m

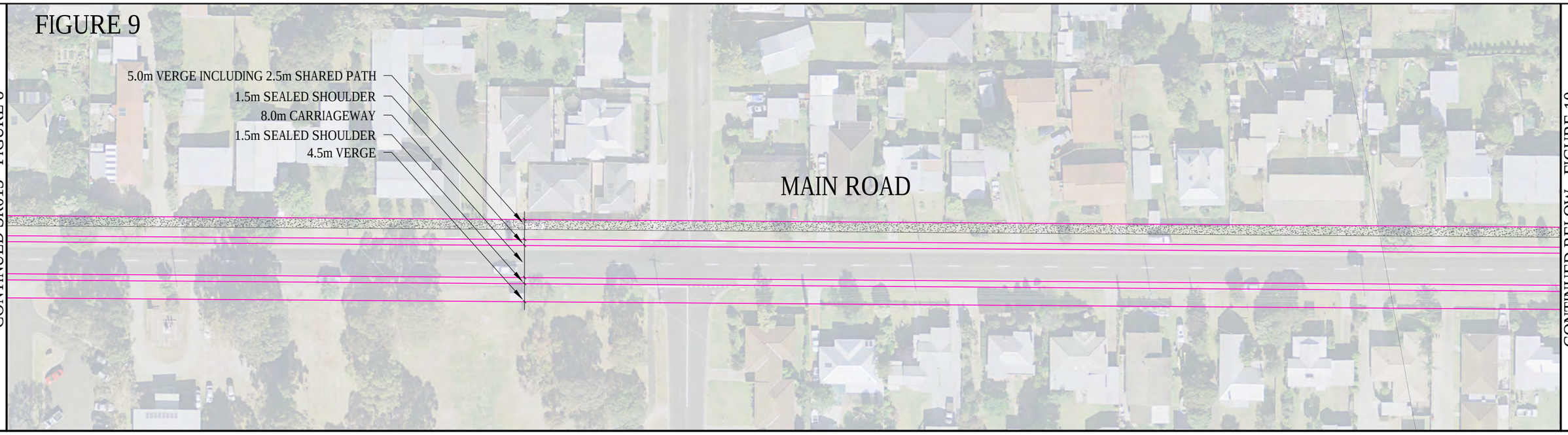
SCALE 1:1000 @A3

N

SALT 3

CONTINUED SK013 - FIGURE 8

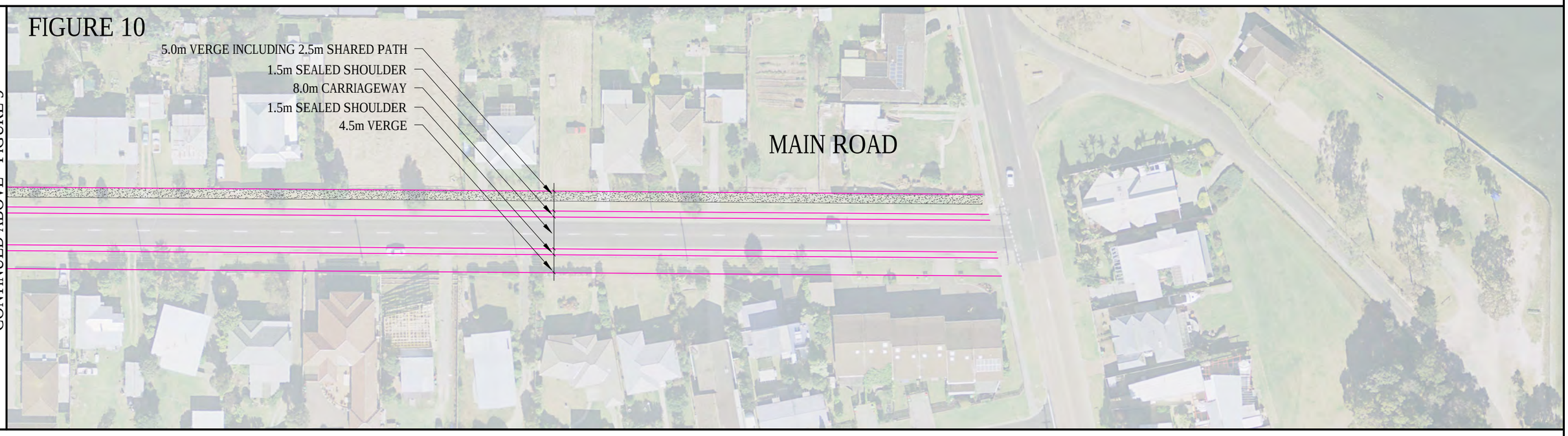
FIGURE 9

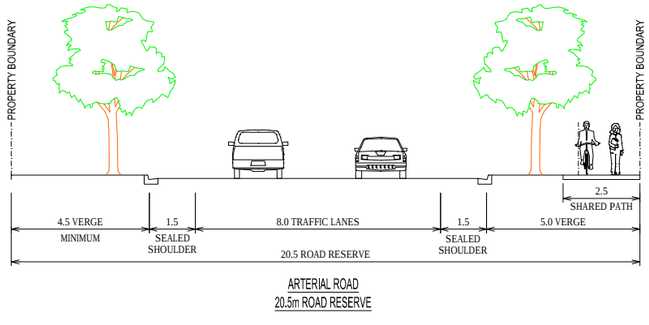


CONTINUED BELOW - FIGURE 10

CONTINUED ABOVE - FIGURE 9

FIGURE 10





15001 SK014

MAIN ROAD
PROPOSED 20.5m ARTERIAL ROAD RESERVE
ALIGNMENT AND IMPACT
C.H. 27.01.2016

0 20 40m

SCALE 1:1000 @A3

N

SALT³

NOTES

1. DESIGN BASE AERIAL PHOTO SUPPLIED BY EAST GIPPSLAND SHIRE COUNCIL
2. THIS S DESIGN IS A CONCEPT PLAN AND IS FOR GUIDANCE ONLY.
3. FINAL DESIGN IS SUBJECT TO A DETAILED FEATURE SURVEY.
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SIGN SCHEDULE

# 3	KEEP LEFT	R2-3(L)
# 5		R1-3
# 7		D4-1-3
# 9		D4-V105

WATERVIEW ROAD
BAIRNSDALE-PAYNESVILLE ROAD
GRANDVIEW ROAD
EXISTING TITLE BOUNDARY
MATCH INTO EXISTING EDGE OF BITUMEN
PROPOSED EDGE OF BITUMEN
PROPOSED FACE OF KERB
PROPOSED LINEMARKING
EXISTING POWER POLE TO BE RELOCATED
MATCH INTO EXISTING LINEMARKING
PROPOSED EDGE OF BITUMEN
EXISTING TITLE BOUNDARY

Rev.	Date	Description	Drn.	Des.	Appr.
P1	30.05.2016	ISSUED FOR INFORMATION	C.I.	C.I.	J.B.

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Ph: +61 3 9633 1900
melbourne@salt3.com.au

EAST GIPPSLAND
39 Williams Parade
Bairnsdale VIC 3875
Ph: +61 3 5152 7422
eastgippsland@salt3.com.au

www.salt3.com.au
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Checked:
Authorised:

Client: EAST GIPPSLAND SHIRE COUNCIL
Project: PAYNESVILLE PRECINCT STRUCTURE PLAN
INTERSECTION ARRANGEMENTS
Title: BAIRNSDALE-PAYNESVILLE RD AND GRANDVIEW RD/WATERVIEW RD INTERSECTION ROUNDABOUT CONCEPT DESIGN

Status: PRELIMINARY
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Date	Scale	Size
30.05.2016	1:500	A1

Project Number	Sheet Number	Revision
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SIGN SCHEDULE

# 3	KEEP LEFT	R2-3(L)
# 5		R1-3
# 7		D4-1-3
# 9		D4-V105

MAIN ROAD

ASHLEY STREET

MATCH INTO FACE OF KERB
EXISTING CROSSOVER TO BE EXTENDED
PROPOSED FACE OF KERB
PROPOSED PEDESTRIAN CROSSING
PROPOSED PEDESTRIAN PATH
PROPOSED LINEMARKING
PROPOSED PEDESTRIAN CROSSING
PROPOSED FACE OF KERB
PROPOSED LINEMARKING
PROPOSED PEDESTRIAN PATH
PROPOSED PEDESTRIAN CROSSING
PROPOSED FACE OF KERB
PROPOSED LINEMARKING
MATCH INTO FACE OF KERB
MATCH INTO FACE OF KERB
PROPOSED LINEMARKING
PROPOSED FACE OF KERB
PROPOSED PEDESTRIAN CROSSING
MATCH INTO EXISTING PEDESTRIAN PATH
EXISTING POWER POLE TO BE RELOCATED
PROPOSED PEDESTRIAN CROSSING
PROPOSED LINEMARKING
PROPOSED FACE OF KERB
MATCH INTO FACE OF KERB
MATCH INTO FACE OF KERB
PROPOSED FACE OF KERB
PROPOSED PEDESTRIAN CROSSING
MATCH INTO EXISTING PEDESTRIAN PATH
PROPOSED LINEMARKING
MATCH INTO EXISTING PEDESTRIAN PATH
PROPOSED PEDESTRIAN CROSSING
PROPOSED LINEMARKING
PROPOSED FACE OF KERB
MATCH INTO FACE OF KERB

Rev.	Date	Description	C.I. Drn.	C.I. Des.	J.B. Appr.
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Bairnsdale VIC 3875
Ph: +61 3 5152 7422
eastgippsland@salt3.com.au

www.salt3.com.au
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INTERSECTION ARRANGEMENTS
Title: MAIN RD AND ASHLEY ST INTERSECTION
ROUNDABOUT CONCEPT DESIGN

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# 7		D4-1-3
# 9		D4-V105

KING STREET

MAIN ROAD

Rev.	Date	Description	C.I. Drn.	C.I. Des.	J.B. Appr.
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INTERSECTION ARRANGEMENTS

Title: MAIN RD AND KING ST INTERSECTION
ROUNDABOUT CONCEPT DESIGN

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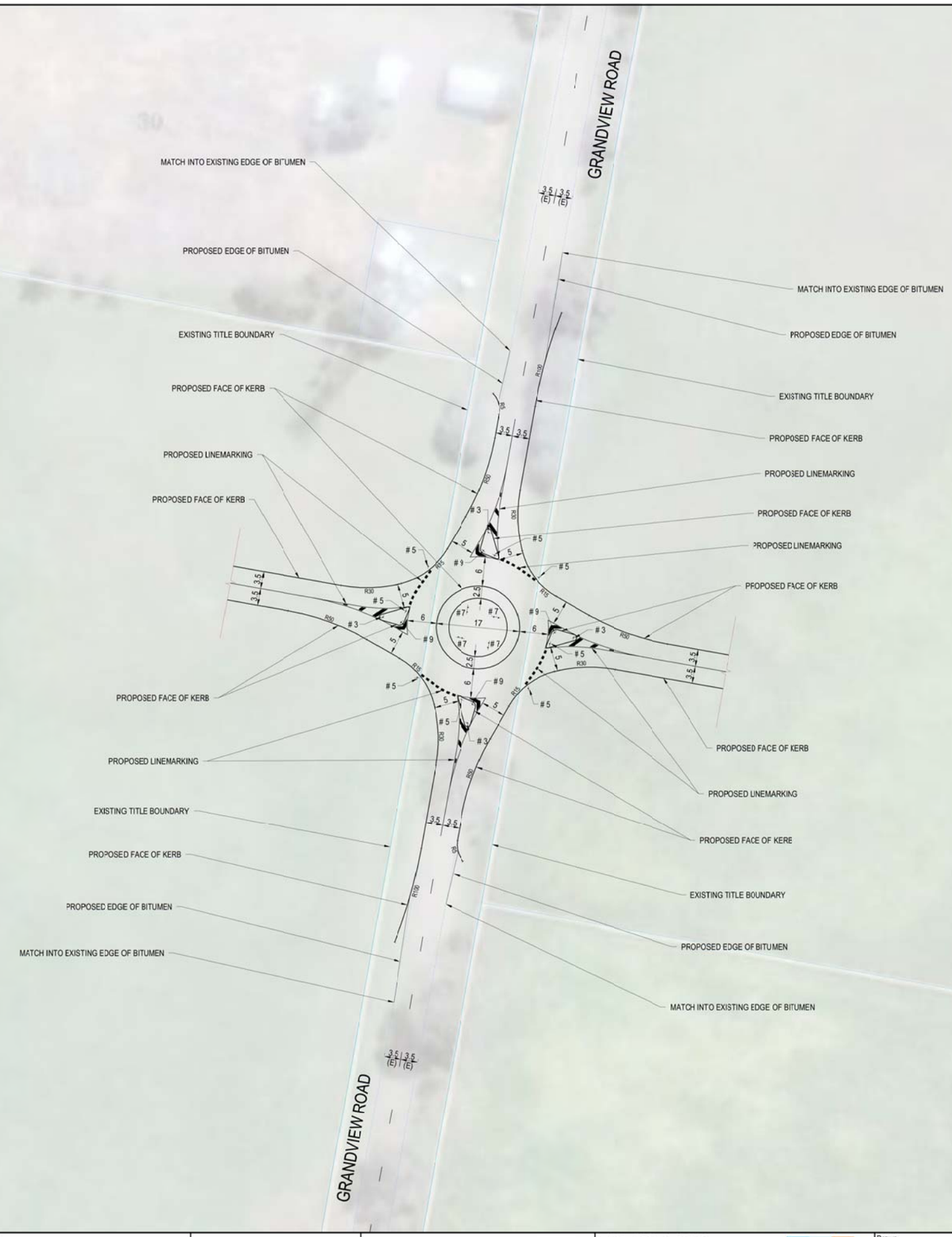

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3289 Wellington Pde South
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Ph: +61 3 9633 1900
melbourne@salt3.com.au

EAST GIPPSLAND
39 Williams Parade
Bairnsdale VIC 3875
Ph: +61 3 5152 7422
eastgippsland@salt3.com.au

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INTERSECTION ARRANGEMENTS

Title: GRANDVIEW RD ROUNDABOUT
CONCEPT LAYOUT DESIGN

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Social Infrastructure Development for the Paynesville Development Structure Plan

Prepared by Bruce Smith
Senior Social Planner
East Gippsland Shire Council
February 2016

Social Infrastructure Development for the Paynesville Development Structure Plan

Introduction

The metrics used in these calculations are those which have been used by previous assessments and are based on suburban greenfield sites. No comparative rural or regional metrics are available and therefore we need to adjust for a range of different variables in order to get a realistic assessment of the requirement for new infrastructure. Many rural and regional areas have historic infrastructure such as schools, extensive sporting and meeting venues (local halls). The need to establish new facilities is less a demand as the potential for existing social infrastructure to be extended, improved and made more accessible. Healthy by Design guidelines would stress the need for greater opportunities for active and passive recreation and the importance of linkages between residential and social infrastructure. Walking distances between residences and recreation and transport opportunities needs to be kept to reasonable minimums (500 metres) and where major social infrastructure are at greater distances but still within the community, defined shared pathways with maximum passive surveillance should become part of the partnership between Council the community and the developer.

Analysis framework

Using common benchmarking ratios for infrastructure development provides an opportunity to define the level of support a community requires as part of population growth, stimulated by housing developments. Population growth is dependant on lot sizing which determines the lot yield for each development. A further determining factor is the uptake rate of the lots and the period of time it takes to fully develop the site. Urbis (2011)[1] have carried out a number of assessments of uptake in both urban and regional centres and use a specific economic model to describe and map the uptake growth over the period of the development.

Discussion

Urbis use economic modelling which suggests in most cases there is a pattern of uptake growth followed by a period of decline in sales. They propose 5-6 years of growth followed by 2-3 years of decline. The first five years of the sale of lots commences slowly and generally takes 5 years to reach the average uptake of the development. This is generally attributed to the lack of appropriate infrastructure and developed amenity to attract a developing community.

[1] Urbis (2011) *Urban Development Area – Take Up Rate Analysis*

In the Paynesville development the average over 40 years is 72.1 lots /annum. By the end of the fifth year there would be, using the above modelling, 144 lots sold. Designing for a community of 2885 people over 40 years often means that there are a number of social infrastructure developments that are staged to meet financial commitments from the developer. This is especially true for large greenfield sites where this are substantial costs.

Regardless of the need for developers to manage their financial commitments, the most successful developments are those which develop a “community” in the early stages of the development. This becomes an essential part of the marketing for the development and can increase the take up rate of lots.

Assessment Results and Recommendations

In the case of the Paynesville development, as shown in the tables below, there are a number of large scale recreation and service organisations within 14 kilometres of the site, in Bairnsdale. Other services and infrastructure which are part of the Paynesville community are still within the ratios and indicate that there is little need for building duplications of services that are less than 2 kilometres away There are some site specific infrastructure identified within the assessment such as passive open space and playgrounds, but the key issue with this development is the need to provide linkages to local schools, children’s services, social and medical support, community meeting facilities and an array of retail and sporting options. Assumptions that every family has and can afford to run two vehicles perpetuates our reliance on this form of transport, when there could be better public transport, improved cycle pathways and walking tracks.

Recommendation 1

Developer contribution is often seen as only providing facilities within a development but in this case their could be an argument made for contribution towards a public transport service node and the connectivity and linkage projects that will avoid unnecessary duplication of costly infrastructure. Costs would be determined as part of the development plan.

Recommendation 2

Developer contribution would also be appropriate to support a long day care service by funding a feasibility study for the Paynesville Child Care Centre to access federal funding to run long day care. The provision of such services has become critical to the contemporary family dynamic, where both parents are in employment. Cost for such a study including development of a centre business plan would be approximately $30,000.

Recommendation 3.

Passive spaces that provide opportunities for social connection, seating, walking and shade at the neighbourhood level would be provided to a minimum total of 2.8 ha. There is a requirement based on the population levels to also provide the equivalent to four playgrounds within the site. In order for there to be a high level of amenity and interconnectivity, the configuration of the open space and playground requirements should form part of the detailed site development plan. Costing would therefore reflect the configurations and no attempt has been made to quantify costs for this work.

Design Considerations for an Active and Connected Community

Based on the Healthy by Design Guidelines[2] the following should guide the development of public spaces and facilities. Adopting these parameters will enable the community to thrive, be connected and address a range of active and passive opportunities that promote important health and wellbeing outcomes. In particular the Healthy by Design planning around public spaces is reproduced here to clearly define the intention to create healthy, supportive environments.

Design objective

To provide a range of public open spaces within walking distance from dwellings. To clearly define walking and cycling routes that pass through open spaces and incorporate these routes into the broader walking and cycling network.

Design considerations

Provide open spaces within safe, comfortable walking distances

• Locate public open spaces within a maximum of 500 metres walking distance from dwellings. This will ensure equitable distribution of open space in an area and allow easy access for most people.

• Provide large local parks (1 hectare minimum) within 500 metres safe walking distance from all dwellings, and small local parks within 150 to 300 metres safe walking distance of all dwellings (as per ResCode).

Connect to the broader walking and cycling network

• Connect walking and cycling routes within open spaces with the broader network

• Ensure that feature parks and parks located on busy roads can be accessed via pedestrian crossings leading to or near park entrances

[2] National Heart Foundation of Australia (Victorian Division) 2004, Healthy by Design: a planners' guide to environments for active living, National Heart Foundation of Australia (Victorian Division).

Encourage active recreation

• Provide a range of facilities to create active recreation opportunities for children and youth. For example, children's play equipment, basketball rings and playground markings
to encourage activities like hopscotch.

• Provide exercise and training equipment along walking paths to encourage more vigorous activity.

• Feature park attractions such as community gardens. These provide a sense of community spirit and local ownership, particularly in areas of higher density housing.

• Design a variety of paths that allow recreational walking around parks or direct passage through parks.

Create pleasing places to be

• Landscape open spaces and other public places to provide pleasant places for people to sit, meet and talk.

• Plant tall trunk, broad leaf, broad canopy trees to provide useful shade for park users and an aesthetically pleasing environment.

. Avoid planting trees that require frequent watering and pruning. Consider drought resistant plants.

• Select appropriate species and locate trees to maximise access to shade throughout the day, winter and summer. Chose low maintenance varieties.

• Provide natural shade or structured shelter within activity centres and open spaces to promote sitting, meeting and talking and to provide protection from weather extremes.

• Maintain open spaces to a high standard to ensure pedestrian spaces are clean and usable.

Promote safety and amenity

• Align the edges of parks with streets to facilitate natural surveillance from nearby housing, businesses or people passing by.

• Avoid solid fencing or walls along park perimeters.

• Plan multiple entry and exit points.

• Locate clustered activities (e.g. cafés and restaurants) within or on the edge of parks or open space.

Provide for comfort and convenience

• Provide drinking fountains in parks and open spaces.

• Provide secure trip end bicycle parking facilities for people riding to parks and open spaces.

• Assess the need for public toilet provision at local destinations.

Facility	Benchmark	Existing Comm'ty 2011 (a)	Projected Comm'ty 2036 (b)	New Dev't Scenario 1 2016-2036 @ average takeup rate 72.1 /annum (c)	Total Proj'd (b) + (c)	New Dev't Scenario 2 Total (Average take up rate over 40 years) (d)	Total Proj'd (b) +(d)	New Dev't Scenario 3 Take up rate in first five years (e)	Required Investment
Early Learning Centres/ Children's Services									
Kindergarten (place)	1 place: 2.2 children aged 4 years (assumes 90% of demand is met by dedicated Council preschools)[1]	3498x0.7/100 =24.5	4945x0.7/100=34.6	1445x0.7/100=10.1	6390x0.7/100=44.7	2885x0.7/100=19.1	7830 x0.7/100 =54.8	302.4 x 0.7/100=2.1	Current number of places (42) is adequate
Maternal and Child Health (session)	1 EFT Nurse: 140 infants (0 year olds) Equivalent of 1 session: 14 infants (0 year olds)	3498x0.9/100 = 31.4	4945x0.9/100=44.5	1445 x0.9/100=13	6390x0.9/100=57.4	2885x0.9/100=24.5	7830x0.9/100 = 70.47	302.4x0.9/100= 2.7	No local provision
Long day child care (place)	1 place: 4.8 children aged 0-6	3498x5.2/100 =181.9	4945x5.2/100=257.1	1445x5.2/100=75.1	6390x5.2/100=331.8	2885x5.2/100=141.6	7830x5.2/100 = 407.16	302.4 x5.2/100=15.7	No local provision
Occasional care	1 place: 28 children aged 0-6	3498x5.2/100 = 181	4945x5.2/100=257.1	1445x5.2/100 =75.1	6390x5.2/100=331	2885x5.2/100=141.6	7830x5.2/100 =407.16	302.4 x5.2/100=15.7	Current number of places (30) is adequate
Community Facilities									
Neighbourhood community centre	1 centre: 3,500-15,000 residents	3498	4945	1445	6390	2885	7830	302	Existing
Multipurpose community centre	1 centre: 20,000-30,000 residents	3498	4945	1445	6390	2885	7830	302	Existing
Community meeting room/hall	1 room: 6,000-10,000 residents	3498	4945	1445	6390	2885	7830	302	Existing
Youth space/facility	1 venue: 1: 20,000 residents	3498	4945	1445	6390	2885	7830	302	Bairnsdale
Cultural Facilities									
Centre based library	1 static library: 30,000 residents	3498	4945	1437	6382	2885	7830	302	Existing
Community arts venue	1 venue: 60,000 residents	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Museum	1 venue: 30,000-130,000 residents	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Art Gallery	1: 30,000-150,000 residents	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Performing arts venue	1: 50,000-200,000 residents	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Civic/cultural space	1: 25,000 residents	3498	4945	1437	6382	2885	7830	302	Bairnsdale

Facility	Benchmark	Existing Comm'ty 2011 (a)	Projected Comm'ty 2036 (b)	New Dev't Scenario 1 2016-2036 @ average takeup rate 72.1 /annum (c)	Total Proj'd (b) + (c)	New Dev't Scenario 2 Total (Average take up rate over 40 years) (d)	Total Proj'd (b) +(d)	New Dev't Scenario 3 Take up rate in first five years (e)	Required Investment
Active Recreation Facilities									
District park	1 park: 3,000-5,000 residents. Min of 8ha	3498	4945	1437	6382	2885	7830	302	Existing
Sub-regional park	1 park: 30,000+ residents. Min of 8ha	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Football field	1 field: 5,000 residents	3498	4945	1437	6382	2885	7830	302	Existing
Cricket field	1 field: 4,000 residents	3498	4945	1437	6382	2885	7830	302	Existing

Facility	Benchmark	Existing Comm'ty 2011 (a)	Projected Comm'ty 2036 (b)	New Dev't Scenario 1 2016-2036 @ average takeup rate 72.1 /annum (c)	Total Proj'd at 2036 (b) + (c)	New Dev't Scenario 2 40 yearTotal (Average take up rate) (d)	Total Proj'd (b) +(d)	New Dev't Scenario 3 Take up rate in first five years (e)	Required Investment
Soccer field	1 field: 5,000 residents	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Netball Court	1 Court: 7000 residents	3498	4945	1437	6382	2885	7830	302	Existing
Hockey		3498	4945	1437	6382	2885	7830	302	N/A
Tennis court	1 court: 3,000 residents	3498	4945	1437	6382	2885	7830	302	Existing
Lawn bowls green	1 green: 10,000 residents	3498	4945	1437	6382	2885	7830	302	Existing
Field for lower profile sports	1 field: 15,000 residents	3498	4945	1437	6382	2885	7830	302	Existing
Indoor multipurpose court	1 court: 10,000 residents	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Indoor aquatic/leisure centre	1 venue: 60,000 residents	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Passive Open Space									
Passive space	1ha: 1000 people	3498	4945	1437	6382	2885	7830	302	2.8 ha.
Informal park	Within 500m of every household								
Local/neighbourhood park	1 park: 750-3,000 people, generally min of 1ha	3498	4945	1437	6382	2885	7830	302	1 ha.
District park	1 park: 3,000-5,000 residents. Min of 2ha	3498	4945	1437	6382	2885	7830	302	Existing
Sub-regional park	1 park: 30,000+ residents. Min of 5ha	3498	4945	1437	6382	2885	7830	302	Existing
Regional park	1 park: 200,000 or 20min drive. Min of 5-10ha	3498	4945	1437	6382	2885	7830	302	Bairnsdale
Playgrounds									
Playgrounds	Within 500m of every household								
Playground	1 playground: 250 children aged 0-12 years	350	731	172	798	360	979	38	4 x Playground
Education Facilities									
Government primary students	55% of children aged 5-11	104.5	191	55.3	246.3				Determined by Department of Education and Training
Government secondary students	47% of children aged 12-17	92.1	143	41.8	184.8				
Catholic primary students	25% of children aged 5-11	47.5	86.5	25.1	111.6				
Catholic secondary students	25% of children aged 12-17	49	76.5	22.3	98.8				
Independent school students	10% of children aged 12-17	19.6	30.6	8.9	39.7				

Memo

To:	Tim Weight & Martin Richardson	**From:**	Greg Hansell
Organisation:	Tim Weight Consulting & The Right Man	**Date:**	21/03/2016
Job Title:	Paynesville Structure Plan – completion project		
Subject:	Paynesville Growth Area Structure Plan – High Level Hydrological Analysis		

1. INTRODUCTION

A concept level hydrological analysis of the Paynesville Growth Area Structure Plan has been completed to provide the following high level information:

- Estimate of stormwater detention requirements,
- Estimate of stormwater treatment requirements, and
- Estimate of stormwater conveyance requirements.

The following sections outline the review of previous work and the concept level analysis completed.

1.1 Summary of Previous Report

The Surface Water Management Strategy and Functional Design of Wetland/Retarding System (Final Report) prepared by Neil M Craigie and Pat Condina (Craigie 2008) for the Lake Peninsular Estate includes relevant stormwater information for a significant portion of the site.

The relevant information for this study have been summarised in the points below:

- The report study area included a total site area of 52.36 ha (red outline in Figure 1.1)
- The Lake Peninsular Estate stormwater retardation system was designed with the following external catchments:
  - 27.8 ha from the west in current (undeveloped) conditions (blue outline)
  - 4 ha from the south (existing conditions) (green outline)
- The limitations for peak discharge were reported as being from the receiving stormwater pipe network and not the 'existing' peak discharge. The receiving stormwater network capacity was reported as follows:
  - Ashley Street pipeline of 1050 mm diameter with an on-grade (0.5%) capacity of 2.0 m^3/s
  - King Street pipeline of 1050 mm diameter with an on-grade (0.76%) capacity of 2.4 m^3/s
- The report included relationships between average imperviousness of development and the corresponding detention volume required which was derived from various RORB hydrologic

model studies. Two data points were provided, and for the purpose of this preliminary analysis the relationship was assumed to be linear (refer to Figure 1.2).

- The detention capacity of the wetland/retention system was assessed by Craigie (2008) to include ultimate development of external catchments in addition to the Lake Peninsular Estate development, and the wetland was found to:
    - Have sufficient airspace to provide the required additional storage capacity for the increase in runoff; and
    - The peak discharge to both Ashley Street and King Street remain within the capacity of the receiving stormwater pipe with the increased runoff.
- MUSIC modelling was undertaken to size the wetland for compliance with best practice management standards. The wetland design consisted of an extended detention depth of 500 mm and surface area of 1.75 ha (shown as 1.9 ha on figures), assuming undeveloped western external catchments, developed southern external catchments and full development of the Lake Peninsula Estate.
- The wetland was capable of meeting best practice discharge water quality objectives for the Lake Peninsula Estate, however did not achieve objectives for the ultimate developed external catchments. Therefore water quality treatment of the external catchments will be required.

In summary:

- The 'as designed' wetland system is capable of attenuating flows associated with development of the 27.8 ha of the western external catchment to within capacity of the receiving stormwater system in addition to the Lake Peninsular Estate runoff.
- The 'as designed' wetland does not have sufficient capacity to treat runoff from the developed external catchments without changes to the wetland design.

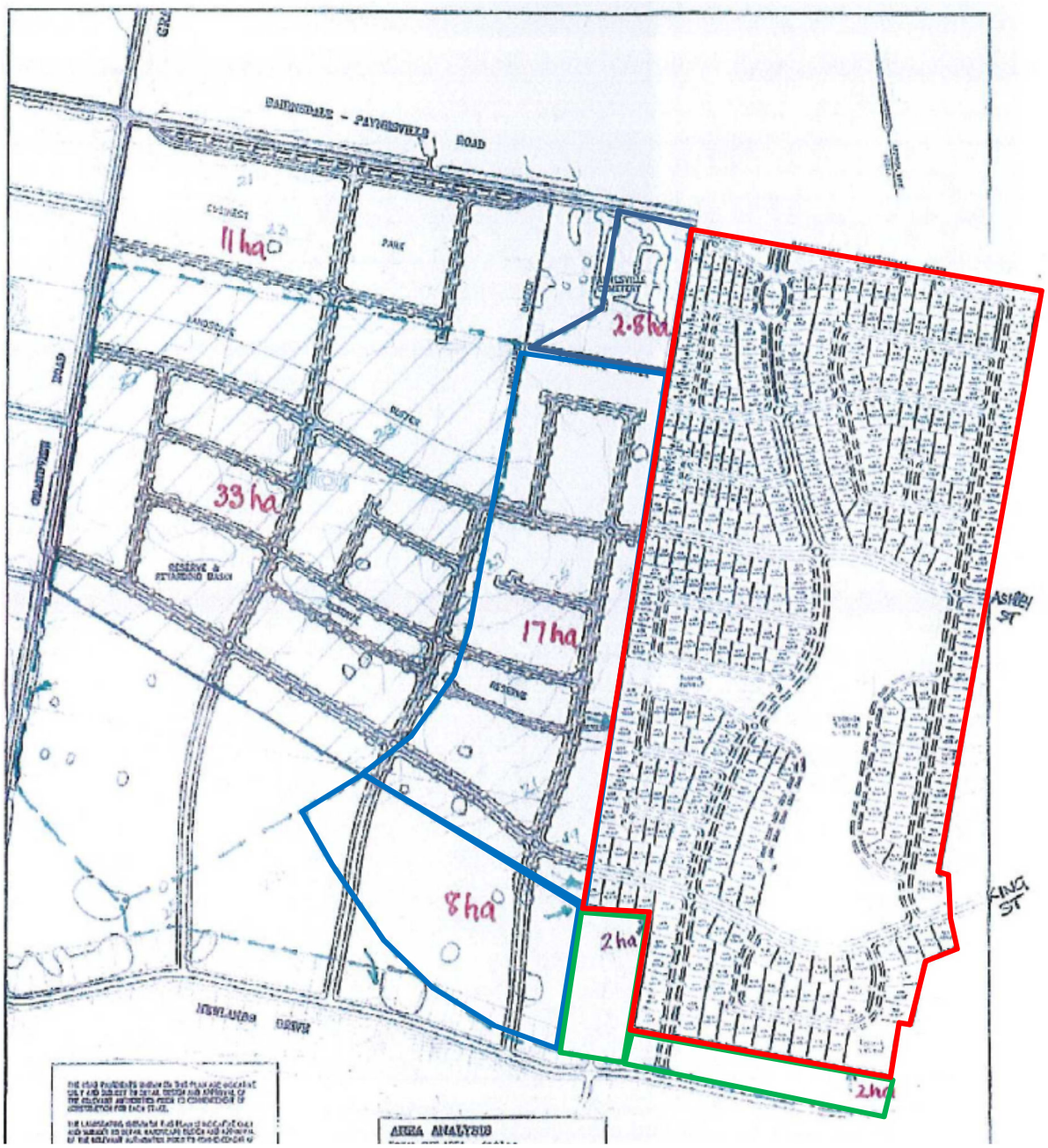


Figure 1.1 Lake Peninsular Estate

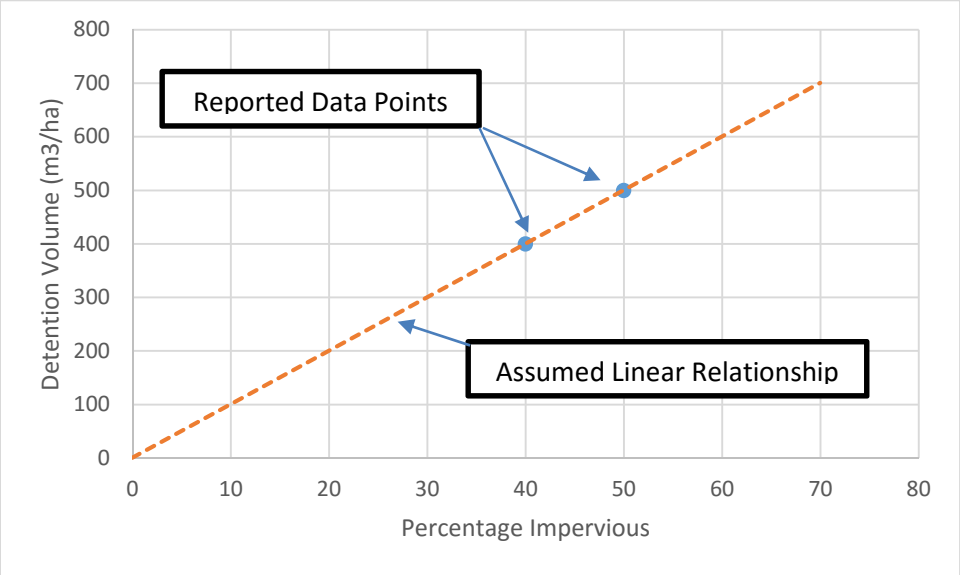


Figure 1.2 Derived Relationship between Fraction Impervious and Detention Volume

2. CATCHMENT DESCRIPTION

2.1 Existing Conditions

The study area is largely undeveloped, with the majority of the site consisting of rural landuses. The only constructed development within the study area consists of a portion of Stage 1 of the Lake Peninsular Estate and existing cemetery. A number of farm dams are also present. Grades on the site are generally low across the site, however the northern end of the study area does slope at grades up to approximately 10%.

The existing catchment delineation was established using ARCGIS software and LiDAR survey data, with boundaries checked and manually adjusted where necessary. The resulting catchment delineation is provided in Figure 2.1 below. The following comments are made regarding the existing catchment delineation:

- W1 discharges to the Grandview Road reserve. Currently only a single Φ300mmRCP moves flow from the east to the west under Grandview Road.
- There are no clear concentrated flow discharge points from N1, N2 and N3b catchments. It is likely these discharge over a broad area onto Bay Road.
- There are no clear concentrated flow discharge locations from E1. It is likely that this catchment discharges over Palm Avenue over a broad area.
- Sub-Catchments E2a, E3a and E4a discharge into the Lake Peninsula Estate site.
- A small sub-catchment, S1, appears to discharge to Newlands Drive through private properties.

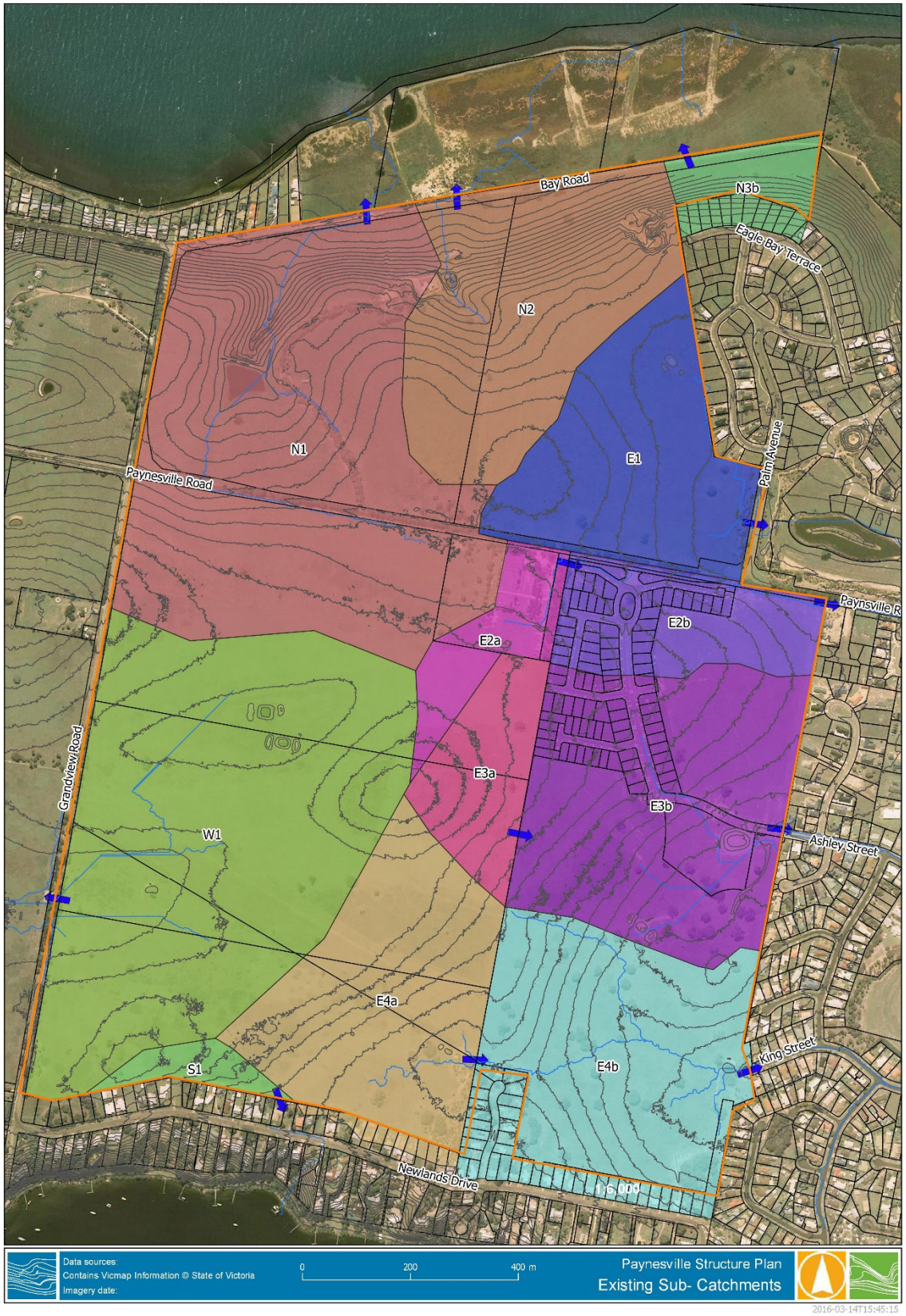


Figure 2.1 Existing Sub-Catchments and Discharge Locations

2.2 Developed Conditions

The existing conditions sub-catchments were adjusted to suit the supplied Structure Plan. No design surface has been prepared for the Structure Plan layout, therefore the catchment delineation was based on the 'best estimate' of the future landform and has been provided in Figure 2.2. The following points are noted in regard to the developed conditions layout:

- W1 contains a low-point which presently contains two farm dams. This are will require filling to become free-draining to suit the proposed layout.
- The catchment divides may be adjusted through bulk earthworks to allow some flexibility in siting and sizing water quantity and quality treatment devices.
- Catchment E4a has been sized as indicated for the purposes of determining preliminary stormwater management device sizes. It is likely that if the provided layout is adopted, that approximately 4.5 ha (or 20% of this catchment) will be diverted to Newlands Drive. This is due to the existing topography and north/south orientation of the access roads.
- The exact flow connection points to the Lake Peninsular Estate from E2a, E3a and E4a will be established at a later design phase. For the purposes of concept level design, the exact locations are not considered critical.

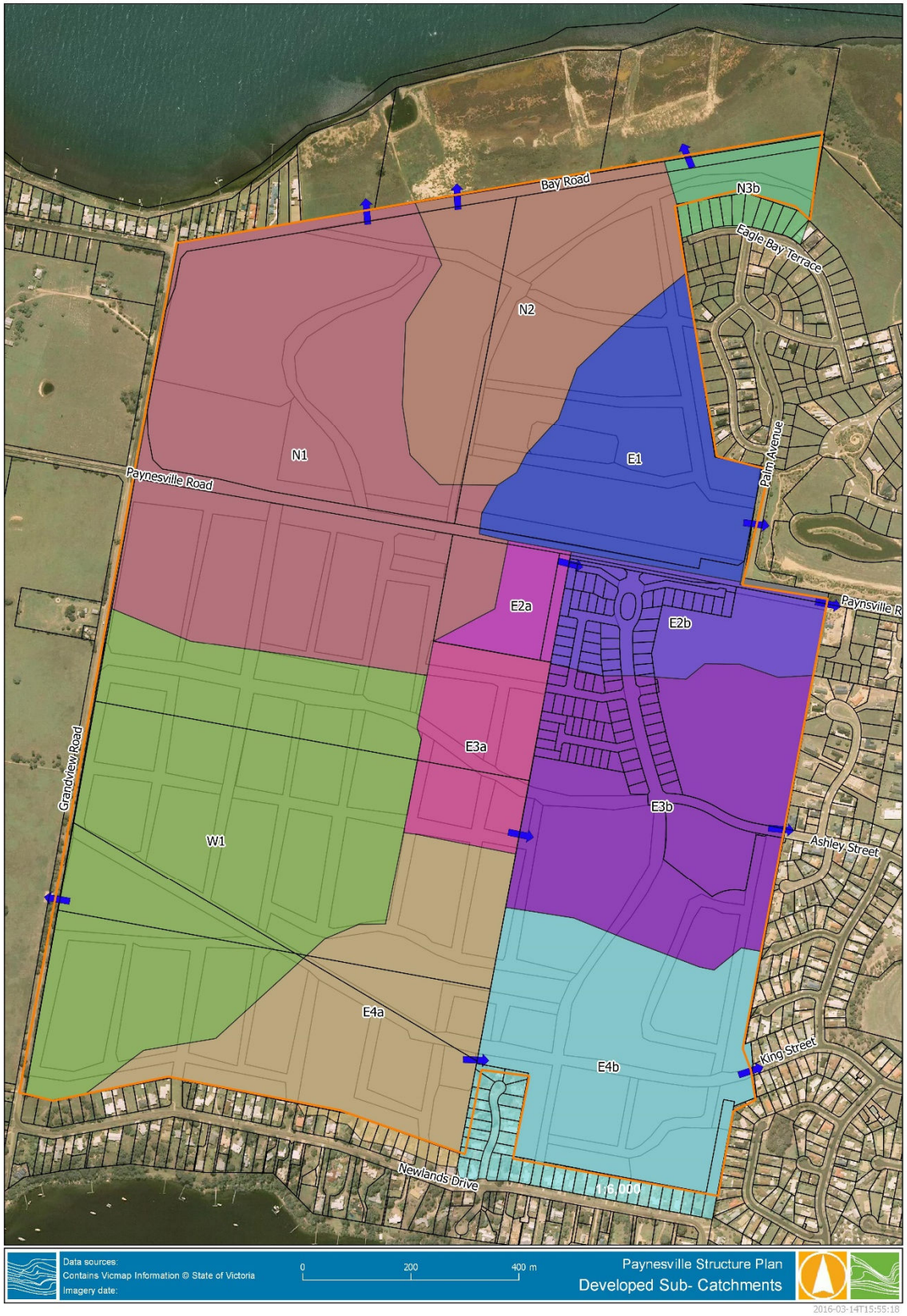


Figure 2.2 Developed Sub-Catchments and Discharge Locations

3. CONCEPT SIZING

Concept level sizing of water quality and quantity management devices, including checks on the existing designs for Lake Peninsular Estate were completed.

3.1 Assumptions

For the purposes of conceptual level device sizing, the following assumptions have been made:

- Catchment delineation will be as per Figure 2.2.
- Catchments which discharge to the north can be treated in a single wetland system on the northern side of Bay Road. It is understood that this land is not owned by Council and will be subject to future negotiations. Catchments discharging north include:
    - N1
    - N2
    - N3b
    - E1 – Note that earthworks will be required to achieve the majority of E1 to discharge to the north. This will result in improved drainage conditions on Palm Avenue.
- The fraction impervious for the developed scenario were adopted as per Table 3-1.

Table 3-1 Assumed Fraction Impervious per Landuse

Landuse	Fraction Impervious
Major road	0.9
MUZ	0.7
Open Space	0.1
PU2Z	0.7
PU5Z	0.6
Res_1	0.6
Roads	0.9
Tourism	0.7

3.2 Detention

Stormwater detention requirements were calculated for the west, east and north lumped catchments as indicated in Figure 3.1. We note that stormwater detention is unlikely to be required for the north catchment, as this catchment does not discharge to any critical stormwater infrastructure. The volumes were calculated as follows:

- The catchments were 'lumped' as indicated in Figure 3.1. This assumes that bulk earthworks will be designed to achieve similar catchment delineation as indicated.
- The ultimate fraction impervious for each lumped catchment was derived through GIS analysis.
- The correlation between fraction impervious and required detention volume reported by Craigie (2008) (refer to Figure 1.2) was used to establish an estimated detention volume for each lumped catchment.
- The detention volumes were compared to results from alternative concept level methodologies through Rational Method calculations and Boyd's Equation. The Craigie (2008)

methodology resulted in a more conservative result and was adopted for this concept level study.

- The required footprint for each detention basin was then estimated using simple geometry calculations, assuming:
    - Regular rectangular shape with 3:1 length to width ratio
    - Trapezoidal cross-sections with side slopes of 1:6
    - Maximum depth of 1.5 m

The resulting basin volumes and surface areas are provided in Table 3-2 and represented in Figure 3.1**Error! Reference source not found.**.

The estimated detention volume for the eastern catchment was compared to the peak storage reported by Craigie (2008). Our estimated volume was considered consistent with the value reported by Craigie (2008) of 55,950 m^3. Therefore the proposed wetland system for the Lake Peninsula Estate has sufficient volume to attenuate flows for the developed eastern catchment to the capacity of the receiving stormwater network.

Table 3-2 Concept Level Detention Basins

Catchment	Approx. Detention Volume (m^3)	Approx. Peak Surface Area (m^2)
West	26,600	20,500
North	50,500	37,500
East	49,200	36,500

Due to the proximity of the north catchment discharge point to the Gippsland Lakes system, there is little risk of adverse impacts to downstream residences. It is therefore proposed that no stormwater detention be provided for the north catchment, with only water quality and erosion protection measures to be provided at the catchment outlet. The East Catchment Management Authority (EGCMA) have been approached for preliminary comment on this approach, with feedback received indicating a 'no attenuation' approach may be acceptable providing water quality impacts and erosion potential is managed (pers comm Adam Dunn (EGCMA) and Simon Hoff (WT) 2016).

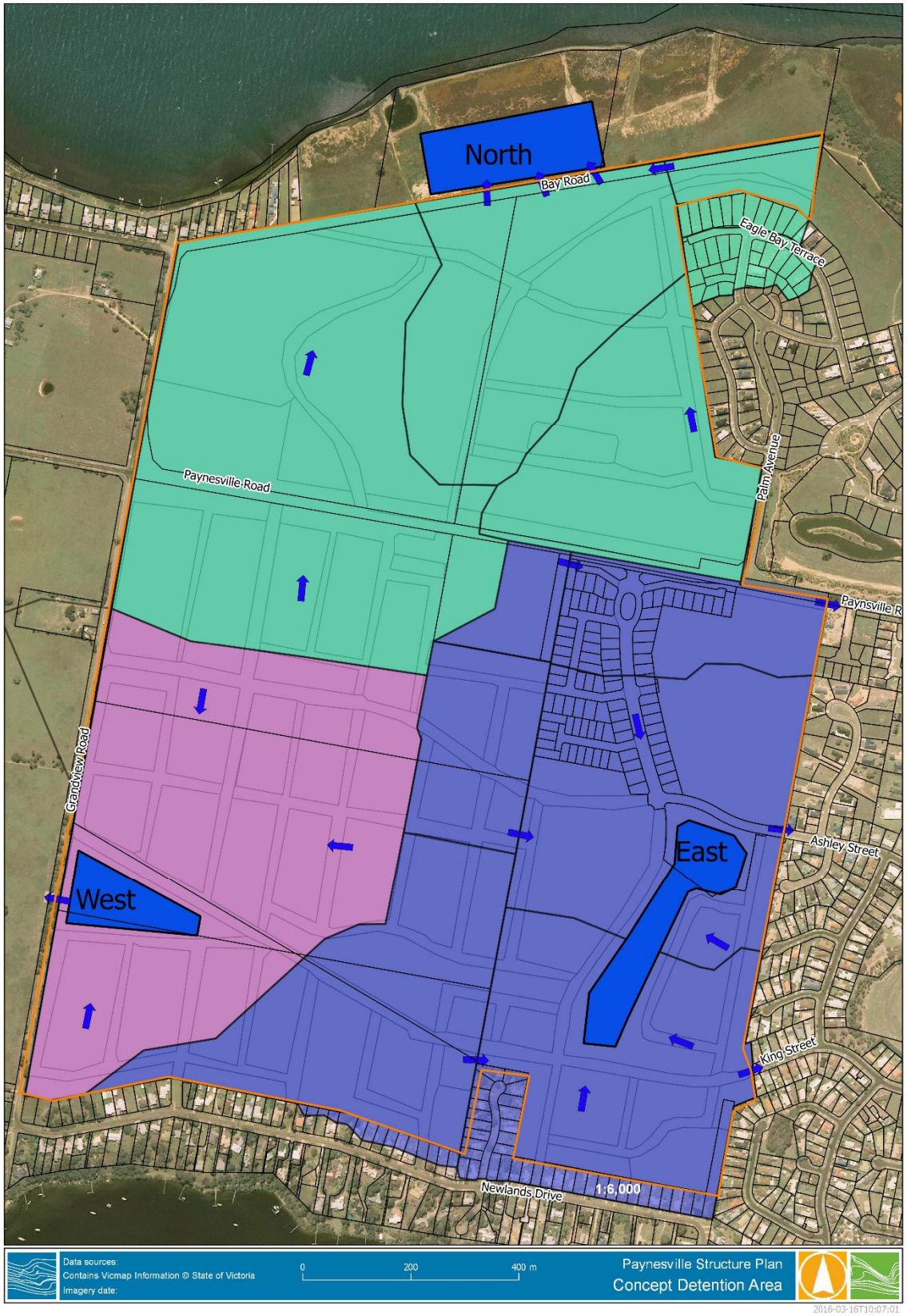


Figure 3.1 Detention Catchments and Concept Level Detention Basin Water Surface Footprint

3.3 Water Quality (Wetland)

The area requirements for water quality treatment devices was assumed to be 4% of the contributing catchment area. This is consistent with the site specific investigation and wetland design reported by Craigie (2008), which resulted in wetland cells sized to between 3.3 and 4.2% of the contributing catchment. The catchment delineation has been indicated in Figure 3.2.

The west and north catchments have been assumed to have a 'lumped' water treatment area similar to that discussed for stormwater detention. Two scenarios were investigated for the eastern catchments;

1. The external catchments discharging to the Lake Peninsular Estate containing water quality devices (split approach); and
2. Increasing the size of the existing proposed wetland within the Lake Peninsular Estate to treat the development in the external catchments (lumped approach).

The results of the analysis have been provided in Table 3-3 and presented in Figure 3.3 for the split approach and Figure 3.4 for the lumped approach.

The results indicate that for the split approach, there is insufficient space allowed in the master layout to accommodate the additional wetlands required within the greenspace allowance on the proposed master plan. This is partially attributed to much of the greenspace being provided in areas unsuitable for wetland establishment. Wetlands are required to be located in low-lying areas to capture upstream catchment runoff; whereas in the master plan much of the greenspace is not located in the lower reaches of the sub-catchments. It may be possible to accommodate sufficient wetland area in the existing greenspace allowance with either changes to the final landform topography, relocation of greenspace areas or a combination of both.

For the lumped approach, the results indicate that there is sufficient space within the allowed greenspace in the Lake Peninsular Estate for a wetland system capable of treating the entire eastern-draining catchment of the master plan area. Note however that increasing the wetland area may impact on the resulting size of the detention facility, potentially increasing the detention facility footprint.

The results are also consistent with the analysis completed by Craigie (2008), in that the proposed wetland system for the Lake Peninsula Estate wetland is not sufficient to treat the developed external catchments as designed by Craigie (2008).

Table 3-3 Water Quality Treatment Areas

Catchment	Wetland Area (ha)
West	16,900
North	33,700
E2a	Existing Development
E3a	3,100
E4a	8,200
East (from Craigie 2008)	19,000 (based on MUSIC results)
East (if lumped)	35,100 (based on 4% of catchment)

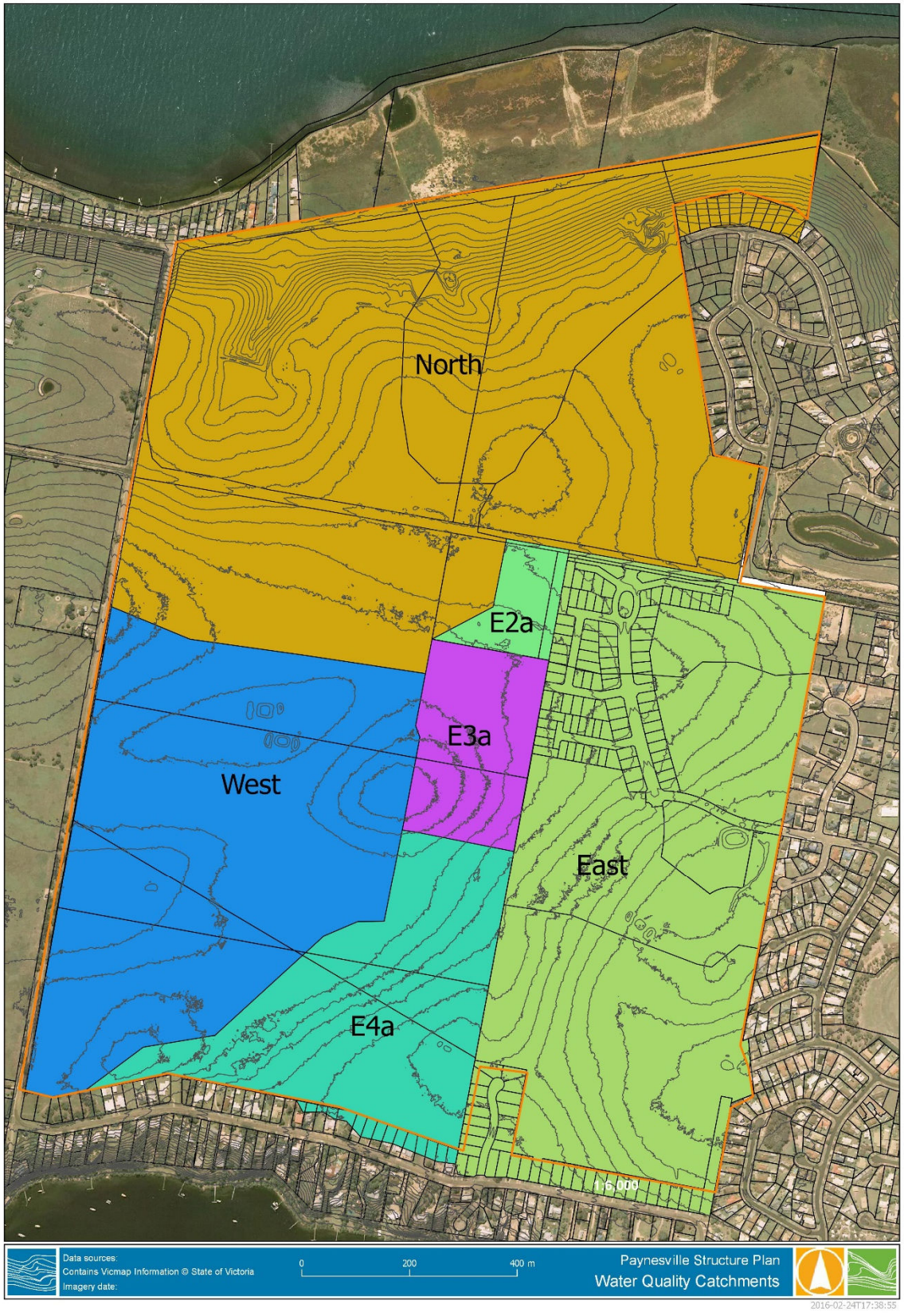


Figure 3.2 Water Quality Catchments

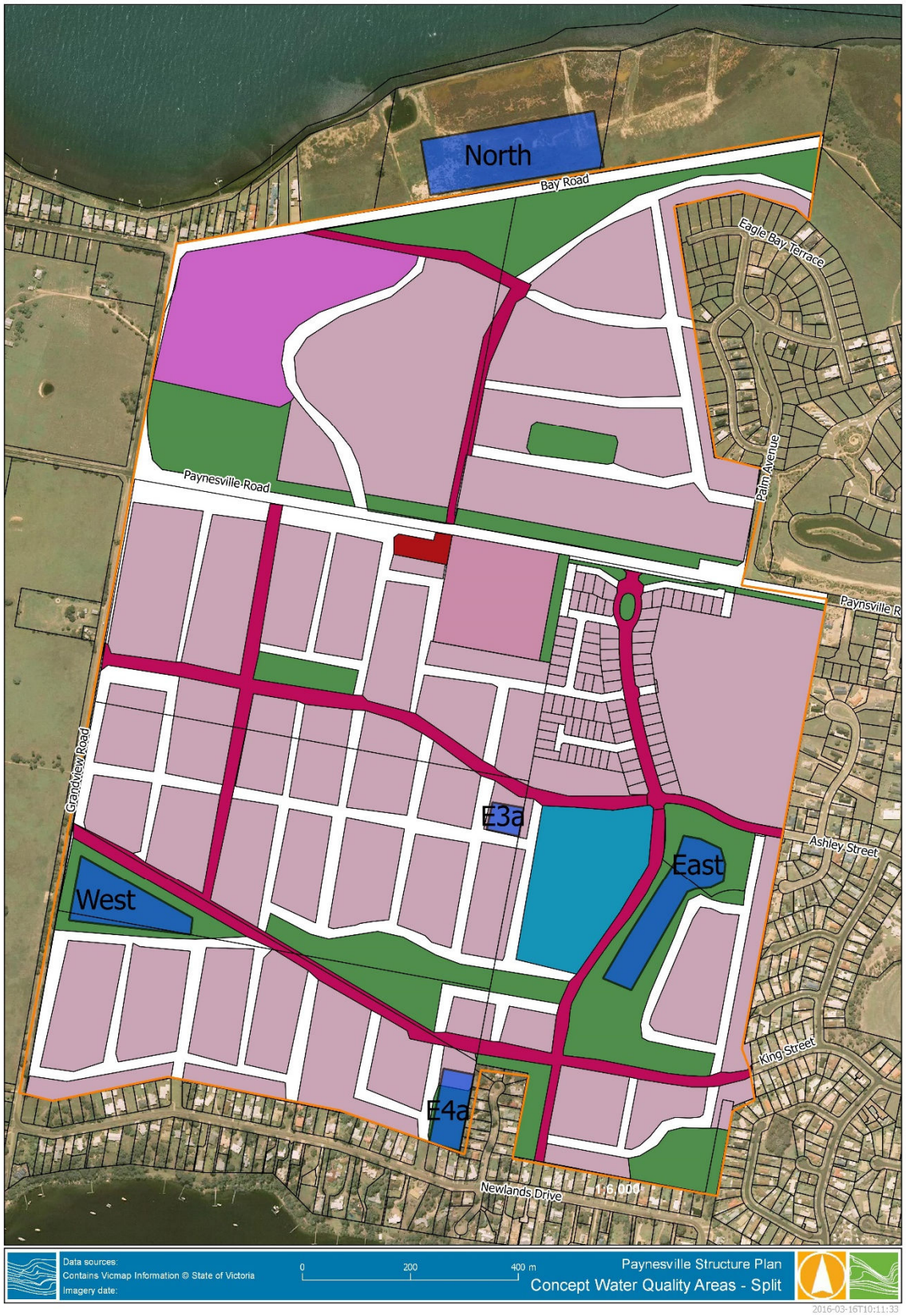


Figure 3.3 Concept Water Quality Areas - Split

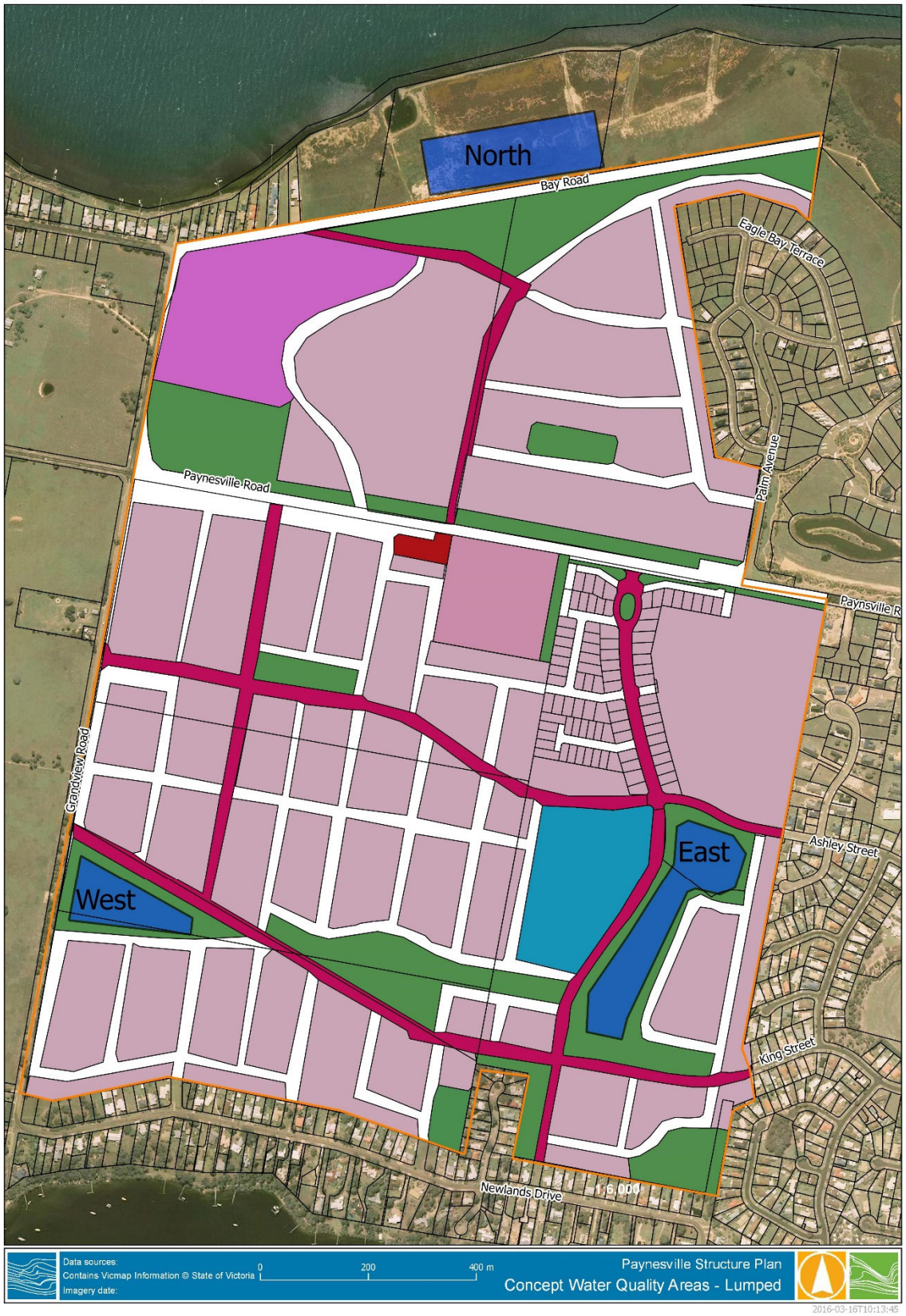


Figure 3.4 Concept Water Quality Areas - Lumped

3.4 Overland Flow Conveyance – Roads

3.4.1 Overview

There are a number of road types proposed within the master plan, as indicated in Figure 3.5 below. These roads will form part of the stormwater conveyance system as well as providing road access. The hydraulic capacity of the proposed road types has been assessed, and compared to potential peak flows at key locations within the master plan area.

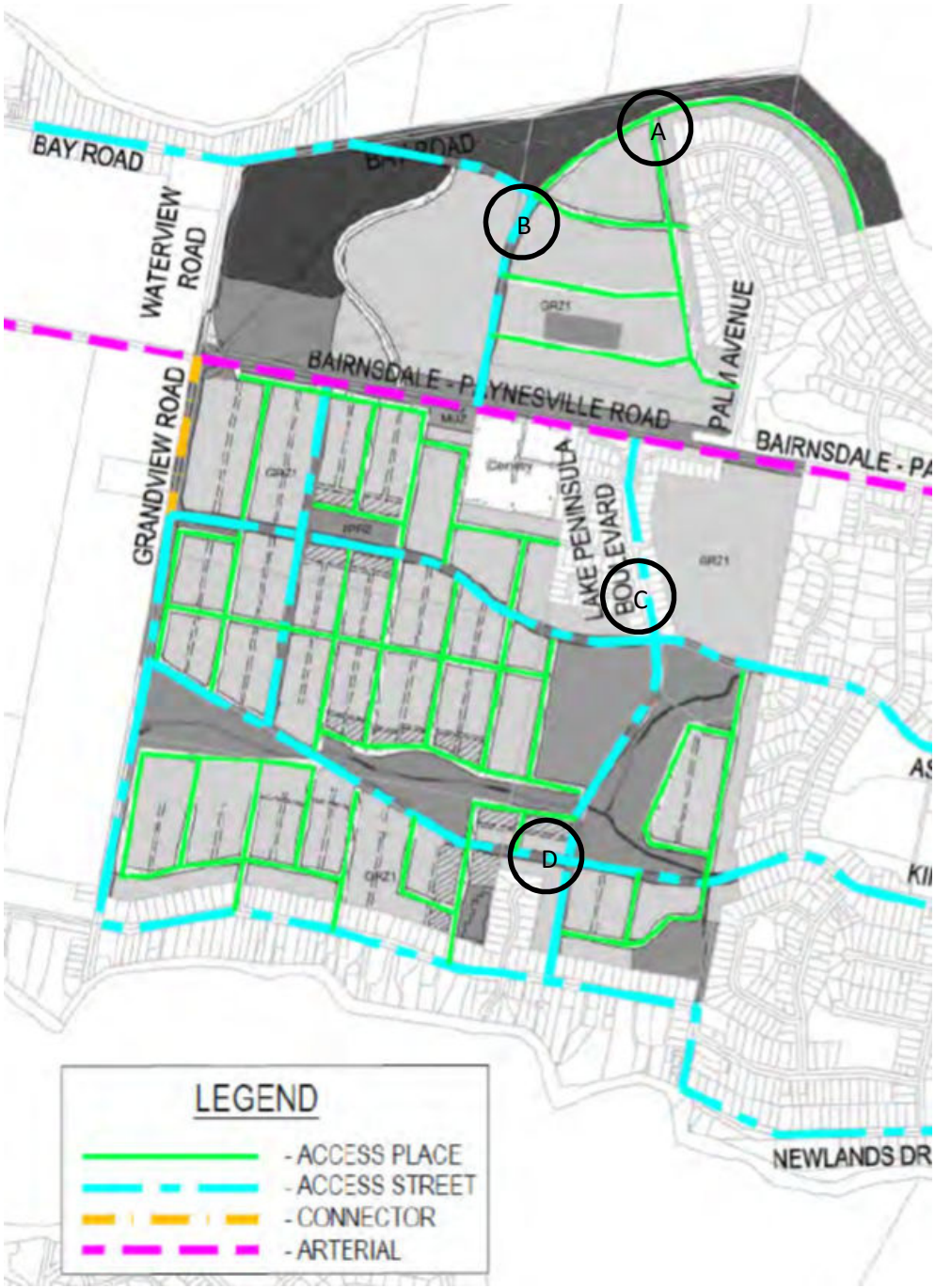


Figure 3.5 Proposed Street Type Plan and Indicative Maximum Conveyance Locations

3.4.2 Cross-Sections

The stormwater conveyance capacity of the proposed road cross sections provided by Salt Pty Ltd in the precinct structure plan for Paynesville (reference 15001) dated 5 February 2016. The cross-sections assessed were the 'access place', 'access street' and 'arterial road' as per Figure 3.6, Figure 3.7 and Figure 3.8 respectively. Note that the following road particulars were assumed based on standard cross-section information provided in Drawing SD 605 from the Infrastructure Design Manual (IDM) (refer to Figure 3.9):

- Traffic lane widths provided by Salt Pty Ltd were assumed to extend to 'back of kerb' as per Figure 3.9.
- Kerb height of 0.125 m, as per the SM2 type semi-mountable kerb detailed on IDM Drawing SD 100.
- Manning's roughness value of 0.013 for the road surface (as per smooth bitumen).
- Standard longitudinal slope of 1, 2, 3, 4 and 5% were assessed.
- Assumed each road type cross-section has cross-fall of 1/30 from crown to kerb as per Figure 3.9

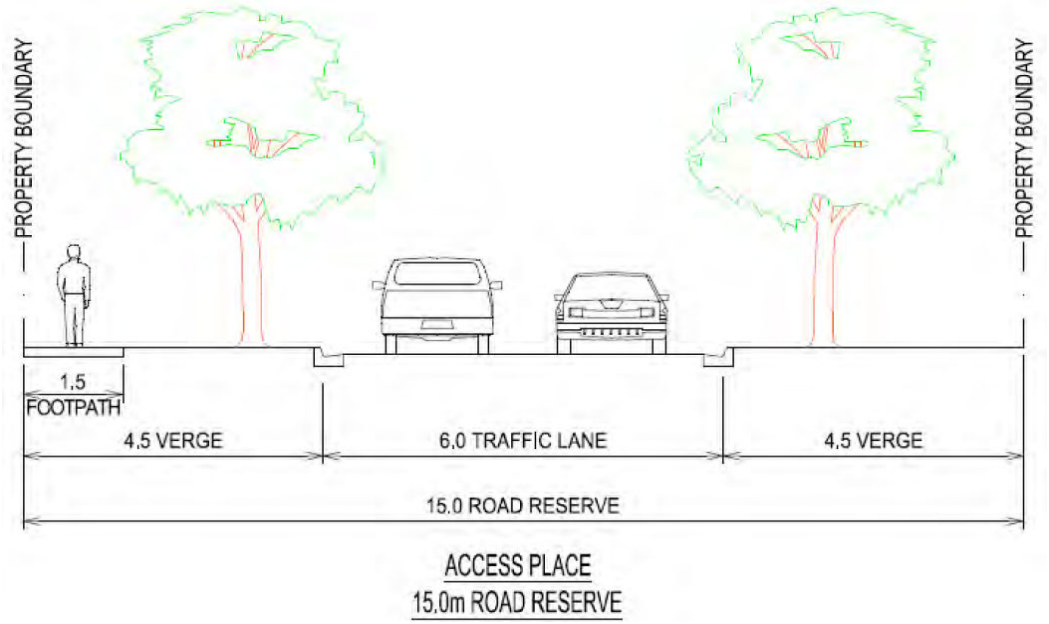


Figure 3.6 Access Place Road Cross-Section

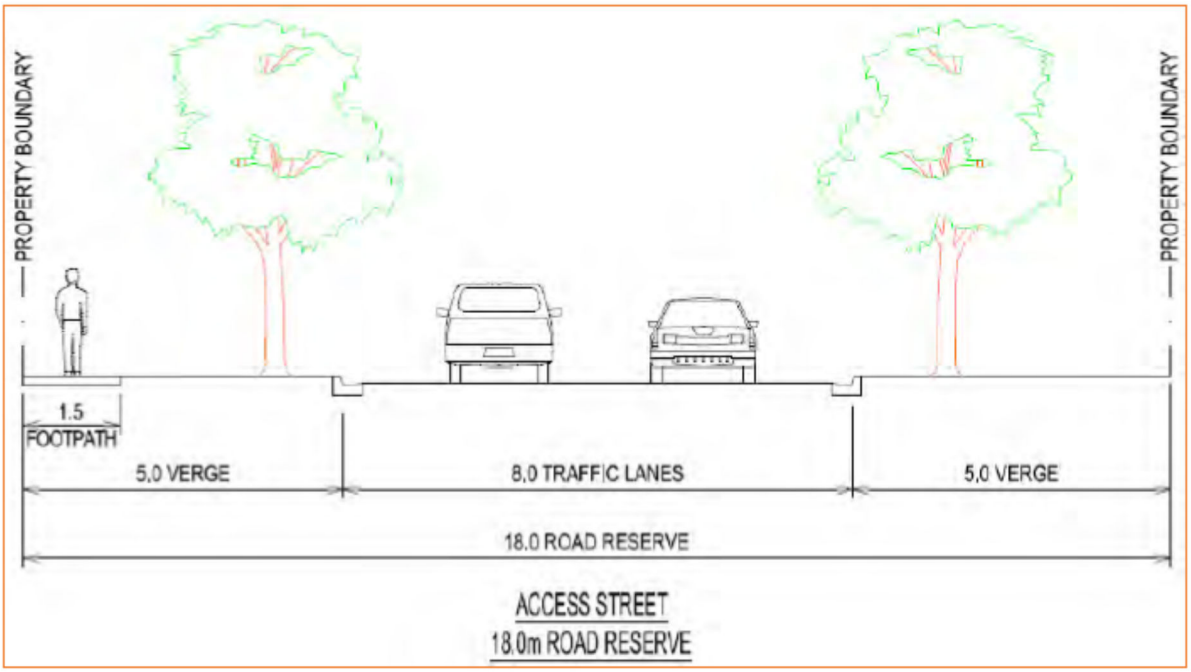


Figure 3.7 Access Street Cross-Section

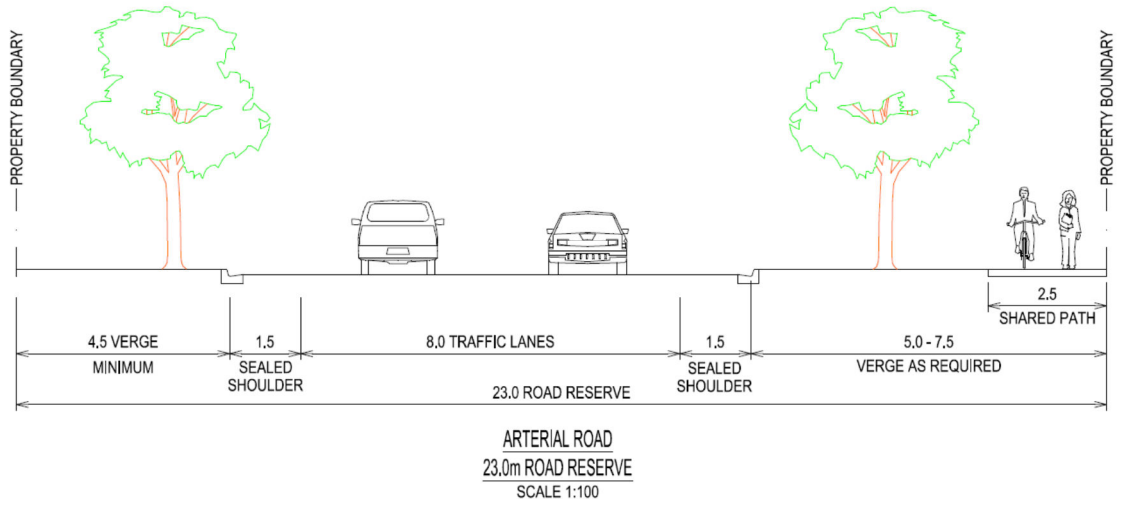


Figure 3.8 Arterial Road Cross-Section

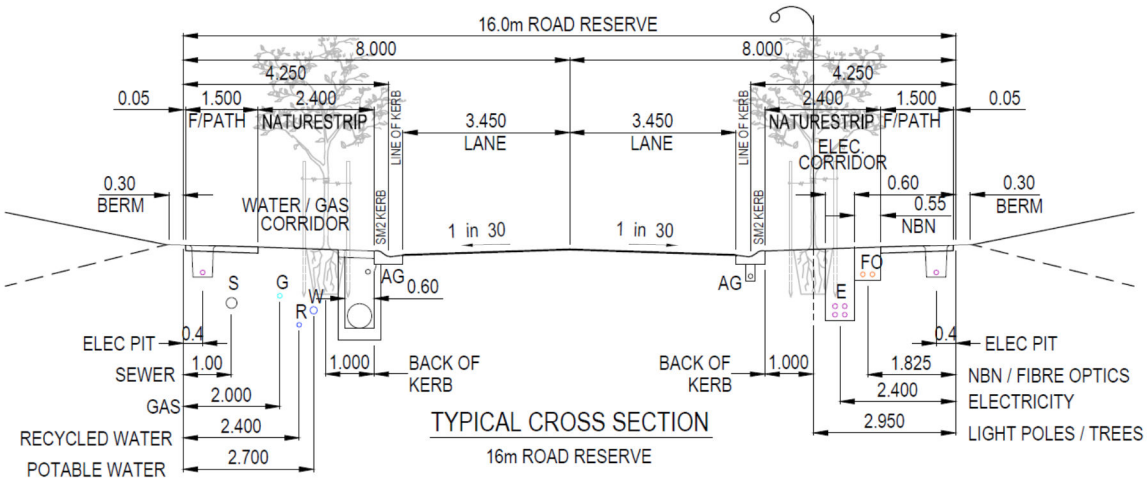


Figure 3.9 Typical Road Cross-Section Details (IDM 2015)

3.4.3 Peak Conveyance Flows

To estimate the approximate peak flows required to be conveyed by the road system, a correlation between catchment area and peak discharge was derived based on Rational Method calculations performed as part of this study. It has been assumed that the roads will convey the Q100 flows less the equivalent peak Q5 flows at any given location due to the piped stormwater drainage network.

The resulting correlation between catchment area and road conveyance flows is provided in Figure 3.10 below.

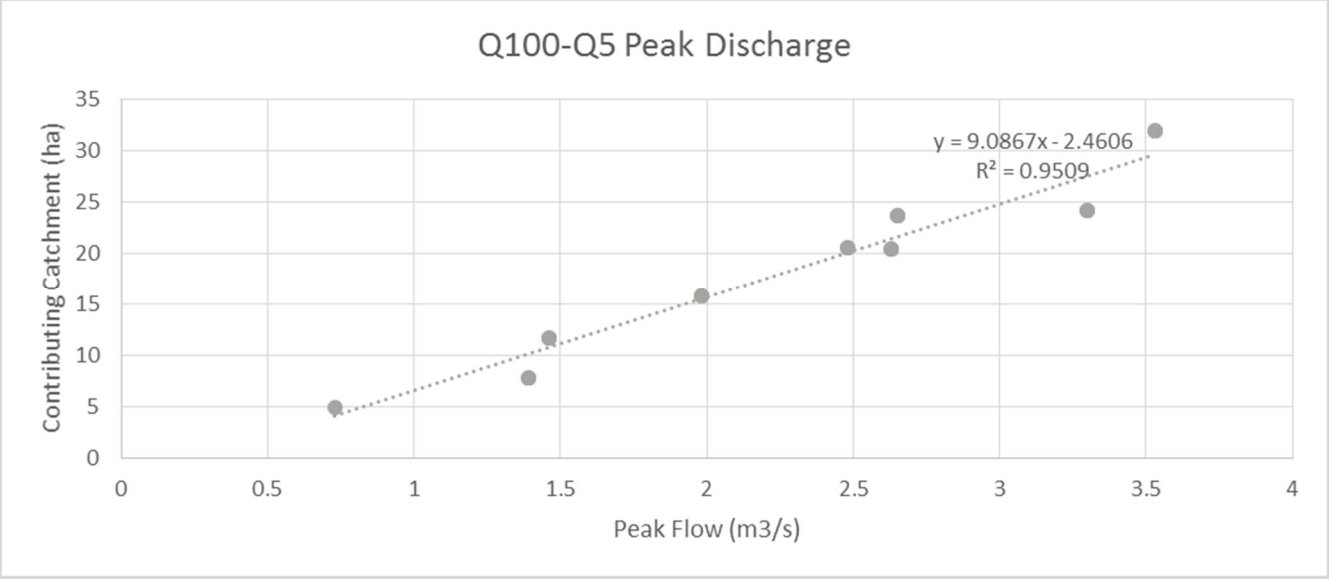


Figure 3.10 General Relationship between Catchment Area and Q100-Q5 Peak Discharge

3.4.4 Conveyance Capacity

The conveyance capacity of the road cross-sections was completed using Manning's equation.

The resulting peak conveyance capacity within the roadway and resulting, velocity and DV product for each road type is provided in Table 3-4, Table 3-5 and Table 3-6 below. The approximate maximum catchment area which can have the Q100-Q5 conveyed within each road cross-section has also been estimated based on Figure 3.10.

Table 3-4 Access Place

Slope (%)	1	2	3	4	5
Flow Capacity (m3/s)	0.54	0.75	0.92	1.06	1.19
Velocity (m/s)	1.27	1.80	2.20	2.54	2.84
DV Product	0.15	0.22	0.26	0.30	0.34
Maximum Catchment (ha)	2.4	4.4	5.9	7.2	8.3

Table 3-5 Access Street

Slope (%)	1	2	3	4	5
Flow Capacity (m3/s)	0.50	0.70	0.87	0.99	1.12
Velocity (m/s)	1.15	1.63	2.00	2.30	2.58
DV Product	0.14	0.20	0.24	0.28	0.31
Maximum Catchment (ha)	2.0	3.9	5.4	6.6	7.7

Table 3-6 Arterial Road

Slope (%)	1	2	3	4	5
Flow Capacity (m3/s)	1.08	1.55	1.89	2.15	2.44
Velocity (m/s)	1.37	1.95	2.39	2.74	3.08
DV Product	0.16	0.23	0.29	0.33	0.37
Maximum Catchment (ha)	7.3	11.6	14.7	17.0	19.7

Within the proposed master plan area, individual roads typically have smaller catchments than the maximum catchment areas indicated in the above analysis. There are however a few key locations where the assumed catchment area for roads exceed the maximum values estimated as part of this study. Some of these areas are indicated on Figure 3.5 as:

- A – Access Place. Has catchment area of approximately 10 ha, which is likely to require additional cross-sectional flow area, be serviced by an oversized piped stormwater network and/or include flow splitting with other roads. Note that this catchment area has assumed significant re-grading of the catchment, as discussed previously.
- B – Access Street. Has catchment area of approximately 10 ha, which may require an additional cross-sectional flow area, be serviced by an oversized piped stormwater network and/or include flow splitting with other roads.
- C – Access Street. Has a catchment area of approximately 7 ha, which may require an additional cross-sectional flow area, be serviced by an oversized piped stormwater network and/or include flow splitting with other roads.

- D – Access Street. Has a catchment area of approximately 9 ha, which may require an additional cross-sectional flow area, be serviced by an oversized piped stormwater network and/or include flow splitting with other roads.

Overall, the road cross-sections provided are likely to provide sufficient conveyance capacity for the Q100-Q5 flows for upper areas of the catchments providing longitudinal grades are adequately managed and suitable piped stormwater systems are in place. Lower areas of each catchment may require additional cross-sectional flow area within the road reserve, oversized piped stormwater drainage, splitting of flows amongst additional streets or a combination thereof.

Paynesville Growth Area Structure Plan

Consultation Report

October 2015

Tim Weight CONSULTING

THE RIGHT MAN

Contents

Introduction

As part of the preparation of the Paynesville Growth Area Structure Plan, the consultants are required to undertake targeted engagement and consultation with the following groups:

- Landowners
- East Gippsland Shire Council staff
- Local residents in focus group style discussions
- Servicing authorities and other key stakeholders

The objectives of the engagement process are to:

- Provide the most efficient and effective processes for communication with stakeholders.
- Ensure that key stakeholders (Shire, landowners, agencies and service authorities) are provided with the opportunity to state their specific requirements or preferences for the project.
- Engage key stakeholders in the early stages of the project, and as recommendations are developed, to obtain input and feedback.
- Identify issues of agreement and disagreement so that effort can be focussed on resolving these potential conflicts.
- Ensure that stakeholders and the public are informed of the project and its objectives (by providing information at appropriate times and through effective channels).
- Maximise the opportunity for agreement to be reached prior to the finalisation of draft proposals.
- Ensure that any contentious or sensitive issues are identified and resolved where possible.
- Minimise the potential for community or stakeholder complaints or criticisms due to lack of opportunity for comment.
- Manage the engagement and communications to reduce project risks.
- Facilitate effective community engagement to increase community awareness and encourage constructive and meaningful feedback.
- Avoid over-engagement and manage expectations (by providing the right type of information suited to the stage of the project and the need for informed public comment).

The initial engagement process is now complete, with servicing authorities and the broader community to be further engaged once an initial draft structure plan is prepared.

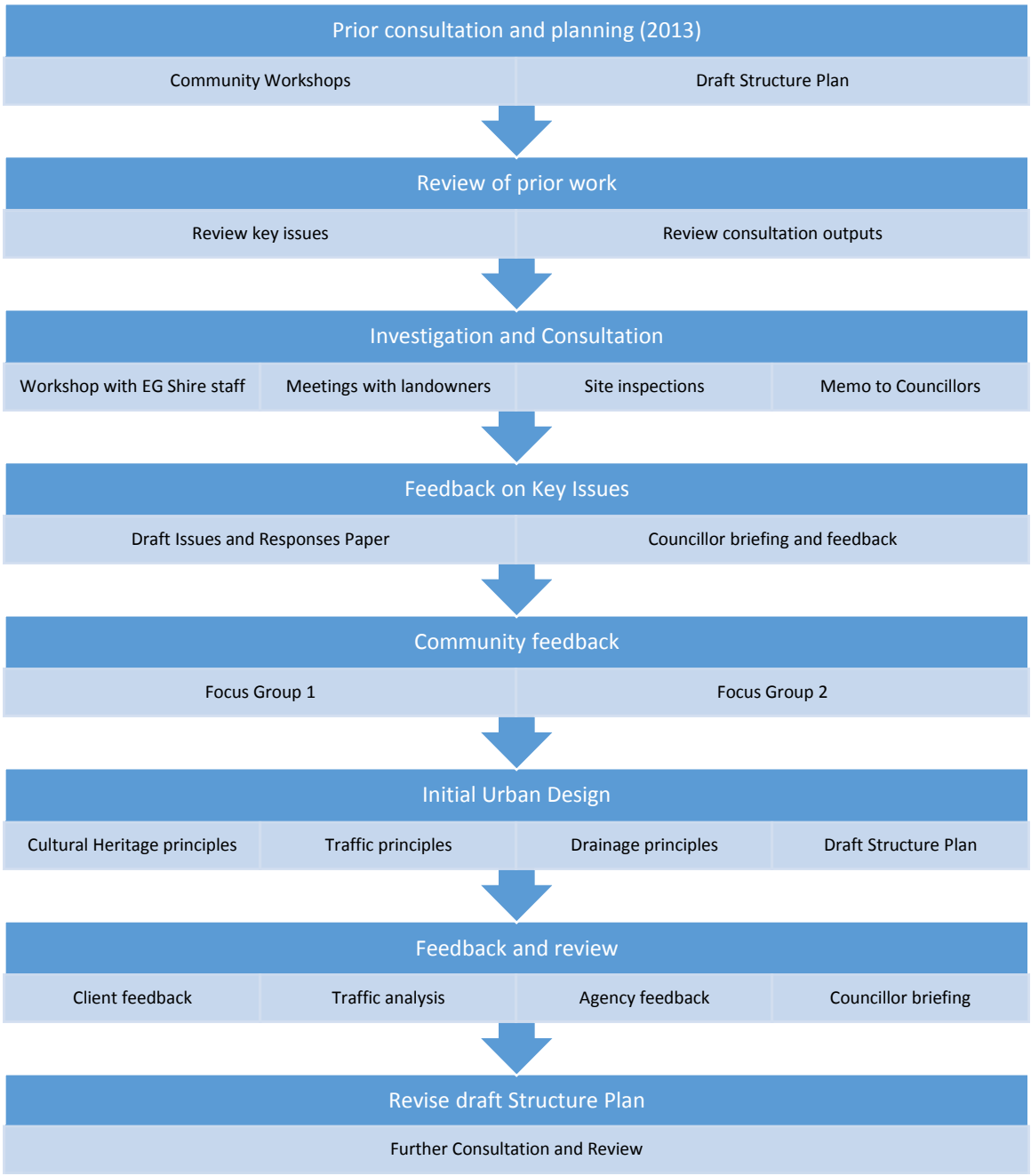
Servicing authorities prefer to provide responses to proposals, rather than specific pre-planning input, other than to state their standard policy and regulatory requirements. However, agencies will be consulted in advance of any draft plans being finalised.

Consultation with local residents (as part of the previous project consultation) has been quite extensive, if somewhat generic, and the input from the targeted focus group discussions has enabled a more detailed conversation about specific aspects of the structure planning issues.

This report provides details of the discussions held with East Gippsland Shire Council staff, landowners, targeted community stakeholders, and describes, in summary form, significant areas of agreement or disagreement on the critical issues affecting the final form of the structure plan.

It sets out a summary of the outcomes of the consultation and recommendations in terms of the key issues requiring resolution for preparation of the draft Structure Plan. These outcomes have been included in the updated 'Issues and Responses Paper', which is proposed to be released for public information.

The overall consultation process is outlined in the diagram below:



Consultation Inputs

Previous community input

The earlier public consultation, conducted in 2013 by SMEC Urban, consisted of a series of workshops with residents, landowners (and their representatives), government agency representatives and other interested parties.

These workshops were well attended and the outcomes of that consultation process have been considered in the initial preparation of the current work.

There is substantial consistency in the community views put in that earlier process and the more targeted consultation that is outlined in this report.

Outcomes of the consultation are contained in the report 'Paynesville and Eagle Point Structure Plans Background Summary – Volume 2 – Community and Stakeholder Consultation Summary' (SMEC Urban, June, 2013).

In summary, the key opportunities identified by the community were:

- Green belt/shared path along Grandview Road/Waterview Road
- Small commercial area located near light industrial such as a service station
- Pedestrian connections along lake shore
- Opportunity for tourism facility/convention centre
- Unique built form outcomes
- Medium-density around areas of high amenity
- Community-based facilities
- Link road between Fullarton Drive and Bay Road
- Protect entry to Paynesville
- Protect view lines to lake
- Provide separation between Paynesville and Eagle Point
- Landscape buffer around cemetery
- Eco-tourism potential
- Enhancement of wetlands and foreshores
- Retention of large trees
- Good pedestrian/cycling connections
- Smaller houses for retirees
- Private school
- Avenue of trees as a welcome to Paynesville

East Gippsland Shire Council Staff Workshop

A workshop was held with key Shire staff on 1 September 2015, with the following summary recommendations agreed:

Road network:

- General agreement that a north-south, east-west grid should be adopted.
- Connections to Newlands Drive were seen as important, although all north-south roads should not necessarily extend through to Newlands Drive; some being terminated at an east-west drainage reserve just north of Newlands Drive with limited access through to Newlands Drive.
- Connections to Ashley and King Streets were agreed to be particularly important.
- Local bus routes through the structure plan area need to be identified.

Footpaths:

- Other than collector roads, new roads require a footpath on one side only. Construction of new footpaths in the existing town area may be required to improve accessibility (Newlands Drive, King Street).

Foreshore and wetlands:

- Land within the area subject to inundation, and adjacent foreshores, are to be reserved for public us and to respect Ramsar values of adjacent wetlands. There is a need identify future public land tenure and management responsibilities.

Local recreation:

- Each neighbourhood should have a central recreation space serving a local role in the overall open space hierarchy.
- District open space is already provided in the existing active recreation areas (AJ Freeman Reserve) and on the Paynesville foreshores – it is not required in the structure plan area, other than on the Lake King foreshore areas.
- The purpose and general “look” of local neighbourhood open spaces should be described in the Structure Plan.

Overall design requirements:

- Overall design themes need to take account of long-term maintenance costs and not create an unacceptable burden on Council’s maintenance budget.
- Subdivision development will need to be consistent with the Infrastructure Design Manual.
- It was noted that the Structure Plan will not be providing detailed design specifications, but will be recommending broad streetscape, landscape and open space themes to meet the project objectives.

Focus Groups

Two focus group sessions were held with groups of Paynesville residents. Participants were approached based on knowledge of community members who previously had shown an active interest and participation in the project. The focus group sessions were not intended to be an exclusive process, but to gauge the views of a range of local residents from various locations in Paynesville.

The value of focus groups is that it allows small groups of community members to discuss relevant issues in a structured process, with participants able to hear the views of others and identify points of agreement and disagreement.

Unlike larger workshops or meetings, focus groups allow a variety of views to be discussed in some detail and for each member to have plenty of opportunity to speak and be heard.

The outcomes of the focus group discussions will be shared more widely to allow broader community vies and responses to be considered.

The first focus group included primarily local business people and local “community leaders”. Seven (7) people attended.

The second focus group included individuals who had previously participated in consultations or had been involved in direct communications with the Shire to express views and concerns about future development. Eight (8) people attended.

Focus group discussions followed a set of broad headings as outlined in the table below.

The table provides a summary of the discussions and conclusions reached in the focus groups.

Summary of Focus Group Discussions and Conclusions

Issue	Focus Group 1	Focus Group 2
Town Growth	Population growth and investment in residential development is dependent on continued attraction of the town for population growth and commercial/tourism investment. Growth should go hand in hand with provision of additional commercial services.	The town has grown substantially in the last 40 years. There are insufficient retail and related services for population growth and these will need to be expanded to cater for growth. There should be no more retail development outside the town centre and there is sufficient space in the town centre to accommodate further retail and commercial activities.
Town Character	Recent changes in the form and character of residential development have detracted from the overall town character. There is a sameness in development that presents as repetitive and visually unattractive. A sense of space should be created in new development. Paynesville has an opportunity to be steered towards a much more desirable pattern of development that maintains its unique and attractive qualities.	Paynesville has a unique character that must be preserved. We should not import a new character and design style from Melbourne. There is a lack of continuity in recent development. The built form of recent development leaves a lot to be desired.
Landscape character	Wide streets with strong landscape themes (street trees) should be created to give a sense of openness and space. The re-establishment of tree-lined road corridors is important. The general character of Paynesville when viewed from lake Victoria is of houses nestled amongst native trees, not visually dominating the landscape.	Landscape quality and tree-lined corridors should be created. There needs to be a balance between the establishment of large trees and the preservation of views. Bushfire risk should be considered in the establishment of new vegetation, as well as the use of suitable native species. Tree-lined road corridors should be established as early as possible, so that they provide initial screening and green character for later development.
Town entry	Entry to town should preserve, where possible, the views to the water (Lake King) and provide a tree-lined corridor on Paynesville Road. Treatment at the Grandview Road intersection should provide a sense of space and arrival and a visual appeal by	“Bands of green” should be established on the Paynesville Road and Grandview Road corridors. The creation of a roundabout at Grandview Road is critical to providing a safe entry to the town.

Issue	Focus Group 1	Focus Group 2
	reinstating a tree-lined road corridor.	A roundabout is absolutely required on Grandview Road to slow traffic and create a safer intersection as traffic numbers grow.
Access, traffic movement and road layout	A second access to the waterfront should be created by providing an alternative "scenic drive" from Bay Road to Fullarton Drive. There is potential to split traffic on arrival at Grandview Road and provide access through the southern half of the growth area to King Street. The southern part of the study area should be connected to Newlands Drive to allow for traffic to be distributed and linked back into the town.	Concerns expressed about the capacity of the existing road network to accommodate growth and additional traffic. Access back to the town should be provided via King and Ashley Streets. Service roads should be used to distribute traffic off the Paynesville Road. A second access is needed to connect Fullarton Drive back to the Paynesville Road. Extension of Fullarton Drive must not create the use of this northern connection as a busy traffic alternative for Paynesville Road. Suggested that three streams of traffic could be created from the Grandview/Paynesville Road intersection to distribute traffic into the new areas. Agreed that access to the existing road network is required, with 3-4 possible connections to Newlands Drive and Ashley/King Streets.
Cycling and walking connections	Cycling and walking connections should be provided off-road to give access through the new development. Walking/cycling connections to and along the foreshore should be improved and enhanced. A boardwalk on the Lake King foreshore should be considered.	Walking and cycling corridors should be provided off-road.
Foreshores and open space	Access to the foreshore is critical and paths/boardwalks should be provided to encourage foreshore walking.	A wider green corridor needs to be established at Fullarton Drive and along the Lake King foreshore to provide "breathing space" for the wetlands. Open space areas should provide for passive recreation, walking and cycling.
Housing	Housing variety should be encouraged to avoid the "sameness" of recent development at "Coast". Different development areas should provide a variety in housing products.	"Lowest common denominator" housing should be avoided. Landscaping can tie disparate housing forms together to create a greater sense of visual appeal. Enough space in streets to create a landscape character. Need to avoid ad hoc subdivision and encourage diversity of housing.

Issue	Focus Group 1	Focus Group 2
Tourism	The potential for establishment of tourism activity to complement existing attractions could be explored. Paynesville needs growth in tourism services and lacks a range of high quality tourism accommodation and facilities.	Tourism use, including visitor accommodation may be acceptable overlooking Lake King at the western end of the area, north of Paynesville Road. Resort-style development that is primarily residential in nature is potentially desirable. Bulk and density of development would need to be controlled and environmental impact must be avoided.
Business and employment	Commercial development that competes with, and undermines the role of the town centre should be avoided, but there is a need to provide land for trades and commercial activities to service the town. There is a need to accommodate local business growth and services and retain employment in the town, e.g. trades, cabinet making, plumbing, vehicle repairs and servicing, self-storage, caravan and boat storage, trailer hire. Activities should not include industrial-type land uses that create noise, odour or have the potential to cause significant impacts on surrounding areas. The area west of Grandview Road and south of the former water reservoir was considered acceptable, provided that visual screening could be provided.	The role of the town centre as the commercial heart should be preserved. Competing land uses that diminish the viability of the town centre should be avoided. There was significant concern about the establishment of business and employment activities, and a strong feeling against any type of "industrial" activities. While some people felt that certain limited commercial services (boat and caravan storage, vehicle servicing, or trades-related uses) might be appropriate for servicing local needs, there was an overall concern about the need for, and impact of business-zoned land. Several members felt that this should be directed to Bairnsdale.
Emergency services	There is a need to locate emergency services on the edge of town to provide good access to surrounding areas.	The matter was not raised. (There is an opportunity for further discussion of emergency services needs).
Service station	A service station could be provided either on the redeveloped and expanded existing site, or in a new location further to the west of the cemetery on Paynesville Road.	There is possibly a need for a new or additional service station. The current facility creates traffic conflict and is in the wrong location. A new site could be established further west on Paynesville Road and could accommodate space for vehicle servicing facilities. It would need to have a landscaped road frontage.
Aged care	Aged care facilities will be required, but are not location specific. They could be provided at various locations in the study area.	Retirement and aged care facilities are acceptable in residential areas.

Consultation Outcomes and Implications

As a result of the consultations conducted to this point the following key outcomes are identified for further development and inclusion in the draft Structure plan.

Town Growth

Growth of the town is generally accepted as necessary and desirable to drive the local economy and accommodate pressure for demand for continued population growth. There is recognition that infill development within the existing built-up area will continue but that diverse housing choices need to be accommodated with continued growth.

The consultation has reinforced the view that Grandview Road must define a limit to future town expansion and that the separation of Paynesville and Eagle Point is to be maintained, in order to retain the unique identity of each town and the rural outlook between the towns.

Focus groups also recognised that the existing town centre should not be compromised by allocation of additional land for retail services and that effort should be made to facilitated further development of these commercial activities on existing vacant land and premises within the town centre.

The structure plan will strengthen the role of the Paynesville/Grandview Road intersection as the transition from a rural to urban environment. The structure plan will also seek to allow a diversity of lot types and sizes to encourage variation in housing types. This will primarily be achieved by encouraging different development "fronts" where land developers are encouraged to design and market a variety of land and housing products. Growth will be encouraged to meet new, higher standards of design, local character and sustainability.

Town and Landscape Character

Paynesville's character as a waterfront town with spacious, tree-lined streets is strongly supported.

There is strong concern about the character of recent development (in particular at 'Coast') and a desire to create a vision for a return to the unique setting and "feel" of Paynesville.

Views to the water should be retained where possible and a variety of lot sizes and housing types should be encouraged.

The "importation" of development types more familiar in the outer suburbs of Melbourne will be discouraged and residential areas will be designed to encourage the development of distinct neighbourhoods that are diverse, well-connected, and accessible to from the existing street network.

The structure plan process provides an opportunity to create a strong vision for the future growth of Paynesville which reinforces, rather than detracts from the qualities and character that most people find attractive. Community members expect town growth that establishes strong local identity, reinforces the lakeside landscape character and provides community connections to the foreshores in a form of development that is sustainable, safe and attractive.

This will be achieved by establishing a clear and bold vision for town growth that is community and environment focussed. A key aspect of the structure plan will be the establishment of strong

landscape linkages to foreshore areas and open spaces, high levels of accessibility and the creation of an urban structure and street environments that provide spacious residential areas, with diversity in lot sizes and housing types.

This will be achieved by encouraging a consistent north-south, east-west pattern of streets that provides for distant views to the water where possible; wide, tree-lined streets to create a sense of space, and a particular emphasis on establishing "parkland" landscaping to create landscape themes consistent with the existing town. Variations in development style and lot size will be encouraged by allowing for development on several fronts, creating opportunities for developers to differentiate their housing products and attract a variety of consumers.

Town entry

The Paynesville/Grandview Road intersection is agreed as a key site for defining the entry to Paynesville.

A roundabout is strongly supported to create a sense of "arrival" (and improve intersection safety) and the establishment of tree-lined road corridors on the major road arteries is desired to help bring a return to the previous boulevard effect upon arrival and entry to the town.

The structure plan will include a proposed roundabout at the Paynesville/Grandview Road intersection. Requirements will be included for the early planting of landscape corridors on major roads. The plan will also propose the establishment of entry treatment that provides a suitable interpretation of the entry, potentially using a public art installation to reflect maritime character, rather than the traditional and conservative approach of providing major signage, walls, etc.

Access, traffic movement and road layout

Consultation revealed a strong support for multiple points of access to the existing town from the growth area, including connections to King Street, Ashley Street and Newlands Drive.

Community members recognise the importance of traffic distribution to avoid larger traffic volumes on a small number of roads and the opportunity for residents to choose the most convenient and safe route to local destinations.

The provision of 2-3 main routes into the new areas to take pressure of Paynesville Road is also supported.

Replication, where possible, of the existing north-south, east-west grid is also supported, creating better opportunities for good lot orientation and vistas to the distance. Some individuals felt that straight streets can be "boring" and that curvilinear roads are desirable from a visual point of view.

In general, community members also supported the establishment of a new connection from Bay Road to Fullarton Drive, although this would need to ensure that this connection was not used as an alternative main route into town. If such a connection is designed primarily to provide safe egress form otherwise landlocked residential areas and a managed "scenic drive" adjacent to the Lake King foreshore areas, there appears to be substantial support for such a link.

The structure plan will incorporate wide, east-west, north-south streets to complement the existing character provided by roads such as Wellington Street and Langford Parade, with wide road verges to accommodate street tree planting and create a spacious streetscape.

Road connections will be provided to King and Ashley Streets to facilitate easy access to the school and town centre. Street connections will also be provided at two or three locations on Newlands Drive to provide access to local traffic only.

Cycling and walking connections

Community members strongly support good, safe pedestrian and cycling connections throughout the growth area.

They also regard district-level connections that link the Newlands Arm foreshore and Lake king foreshore as important for local recreation.

There is a preference for off-road connections and the idea of using natural drainage areas as open space corridors to provide cycling and pedestrian links is supported.

In particular, there is a desire to see internal linkages to the primary school and along Grandview Road to provide a safe cycling/pedestrian route for the whole community that links to the Paynesville-Eagle Point shared path and popular walking route on the northern shore of Newlands Arm.

The structure plan will include a primary east-west pedestrian/cycle route within a landscaped drainage corridor, traversing the southern section of the growth area. It will also include provision for a continuous trail along Grandview/Waterview Roads to provide access to the northern part of the study area. Wide road reserves for internal roads will provide space for local pedestrian connections.

Foreshores and open space

Protection and enhancement of the Lake King foreshore and wetlands is a high priority for the community, both to protect the environmental values of the area and to provide areas for passive open space, walking, cycling and appreciation of nature.

The concept of widening the existing reserve (which is within the area subject to inundation) and the shifting of the existing Paynesville-Eagle Point walking/cycling path to allow a wider environmental buffer is also supported. The widening of the reserve on the Lake King foreshore will serve the dual purpose of satisfying the need for “district-level” open space and providing the opportunity to enhance and protect the thin strip of vegetation that separates urban development from the sensitive Lake king wetland areas.

Local neighbourhood open space is seen as a key to providing a neighbourhood focus for new residential areas. While there are no proposals for major open space facilities for sporting fields and the like (the existing facilities in Paynesville are seen as adequate), the community members support the creation of local open spaces as a “village green” style focus for each neighbourhood. These open spaces will provide a central location within short walking distance of all residential areas, where family activities, picnics and informal recreational activity can occur.

The structure plan will include provision for increasing the width of the Lake King foreshore reserve, shifting of the pedestrian/cycle path “inland” by 30-50 metres to allow for additional native vegetation planting, and the creation of an off-road pedestrian cycle corridor (aligned with natural drainage systems) traversing the southern half of the growth area (from west to east) to provide access to the town and school.

Local open space will be included as a central focus for neighbourhoods to cater for passive recreation. **These spaces would accommodate play areas, seating and picnic facilities for local use.**

Tourism

There is a moderate to high level of community support for tourism facilities within the study area. Community members see the potential opportunities for economic benefits in tourism accommodation, provided that it is authentically related to the Gippsland Lakes location and is designed for high environmental performance and visual appeal.

Opportunities to link to walking/cycling trails and to potentially provide an eco-tourism experience are also recognised.

The suggestion of providing visitor accommodation/resort style development on the land holding in the north-west corner of the growth area is generally supported. The location adjacent to the foreshore and overlooking Lake King is seen as having good advantages from a tourism point of view.

The structure plan will include provision for tourism accommodation/resort development on the land immediately east of Waterview Road, with the objective of facilitating visitor services near the foreshore and wetlands. Development will need to meet a high standard of visual amenity and environmental performance and provide substantial benefits for the local visitor economy.

Business and employment

Previous studies have identified the need for additional land for the location of non-retail business, trades, and services. The East Gippsland Planning Scheme also recognises this need, but suggest a location within the study area. While there is general support in the community for the allocation of land for this purpose, there are some reservations about the potential impact of inappropriate development. "Industrial" development is strongly opposed, but there is a level of acceptance of small-scale business services to accommodate demand for local services – trades (e.g. plumbing, electrical, cabinet-making, etc.), caravan and boat storage, vehicle repairs and servicing, and the like.

Community members expect such land to be outside the residential areas (potentially on the western side of Grandview Road). Locations within the existing structure plan area east of Grandview Road are not supported. Any such development would need to be behind ridgelines and not visible from Paynesville Road, suitable screened and setback from the road and with strong guidelines on the nature and appearance of business premises.

Due to some opposition to the development of a "business park", it is not proposed to include such a proposal in any short-term rezoning of land, however the option of future development does need to be flagged.

The structure plan will indicate an option for establishment of a business park to accommodate local commercial (non-retail) services on a site on the western side of Grandview Road, south of the ridgeline marked by the existing telecommunications tower location. This site would need to be setback from the road and suitable screened, utilising the landscape corridor proposed for cycle/pedestrian access on Grandview Road.

Further community consultation will test broader community sentiment regarding this option.

Emergency services

There is a need to consider a future site as a consolidated emergency services site for CFA, Ambulance and SES. A location on the edge of the Paynesville urban area, associated with the proposed business park/employment area is seen as desirable as it provides the opportunity for common servicing, easy access into the town and to surrounding communities at Eagle Point and Newlands Arm.

The siting of emergency services facilities will be included in the "business park" option for land to the west of Grandview Road, to allow for testing community and stakeholder support for this concept and location.

Service station

Community consultation demonstrates a level of dissatisfaction with the location of the existing service station and the constraints of the site with regard to space and access, particularly for cars with caravans or boat trailers attached.

It is generally accepted that a preferable future location would be on the Paynesville Road further to the west, though not at the town entry on Grandview Road. Such a development would need to be accessed by a small service road to prevent vehicle conflict on the Paynesville Road and could accommodate additional vehicle servicing activities.

The structure plan will include a proposed site for a future service station on land immediately to the west of the cemetery, with provision for sufficient land to accommodate complementary business uses.

Aged care

Community consultation showed support for a range of housing and accommodation types at all stages of the life-cycle. There is support for inclusion of aged care and nursing care facilities within planned residential areas and no particular preference for location.

The structure plan will include flexibility for development of aged care/retirement home developments within the general residential areas, guided by principles to achieve the optimum location.

School

The local Parish of the Catholic Church has expressed interest in the establishment of a primary school in the growth area. This was raised in consultations during 2013 and there is no evidence of community opposition for such a proposal. Community members see advantages for the town in offering educational options.

Consultation indicates that a location that is easily accessible is preferable and the Parish has indicated that a site of 4 hectares on the southern side of Paynesville Road is preferred. The ultimate location of a future school need not be fixed, as this would also be dependent on negotiations between the Catholic Church and landowners; however a potential site has been identified and will be shown on the draft structure plan for further discussion.

The structure plan will indicate a notional site (but with flexibility for change) for a private primary school, with frontage to three streets and a 4 hectare footprint, as required by the proponent and existing planning guidelines.

Conclusion

This paper provides an outline of community consultation inputs and the proposed response to comments received on an issue-by-issue basis.

It is intended that the paper will be made available to all community members who participated in previous workshop consultations and focus groups, for consideration and response. It will be also made more widely available to the community to provide an indication of the proposed directions being proposed in the structure planning process.

The distribution of the paper will provide transparency to the process and allow further community discussion and comment on the matters proposed for inclusion in the structure plan.

In general, there is considerable community consensus on the key issues. In fact, the community focus groups arrived at specific conclusions in relation to the preferred locations of development, road connections, pedestrian/cycle paths and other activities that provide detailed guidance for the structure plan and a level of confidence that the draft plan will meet broadly community expectations and aspirations for future growth.

The next steps are to articulate these issues in a graphical plan form to enable further consultation and refinement.

Paynesville Growth Area Structure Plan

Key Issues and Responses

October 2015

Tim Weight CONSULTING

THE RIGHT MAN

Contents

Purpose

This paper is intended to briefly identify the key issues that need to be addressed in the Paynesville Growth Area Structure Plan and initial responses proposed to meet the objectives of the project.

The aim is to establish broad agreement on key principles, so that further work can be done to develop those initial responses with confidence into solid concepts, or amend them according to feedback received. This information will form the basis of focus group discussions with community members.

A short statement has been provided against each planning issue, outlining a response that is proposed for inclusion (in more detail) in the draft structure plan.

Context

This report has been prepared on the basis of a range of previous studies, planning processes and consultations, including:

- The Paynesville Urban Design Framework adopted by East Gippsland Shire Council in 2006 and incorporated into the East Gippsland Planning Scheme in 2011;
- An initial Structure Planning study conducted by SMEC Urban 2013 involving a series of community workshops and background papers;
- More recent community consultations through targeted focus groups, conducted in September 2015 (and documented in the 'Paynesville Growth Area Structure Plan – Consultation Report')

The issues discussed below also incorporate an acknowledgment of existing legislation, policy and guidelines which will need to be reflected in the draft Paynesville Growth Area Structure Plan, including:

- Commonwealth legislation requiring the protection of Ramsar-listed wetlands, including the Gippsland Lakes;
- Road design and traffic management requirements of VicRoads and the Shire's Infrastructure Design Manual;
- Victoria's Native Vegetation Framework, which sets requirements for protection, management and off-setting of native vegetation;
- Social impact assessment, requiring the costs of social infrastructure to be borne equitably between land developers and government; and
- Best practice in road design, housing diversity, drainage management and cultural heritage protection.

Subject to consensus on the issues and directions described in this report, further consultation will be undertaken with the community, East Gippsland Shire, landowners and infrastructure/service providers to refine and develop the detail of a draft Structure Plan.

Many of the requirements for land development are contained in legislation and are mandatory at the stage of subdivision. It is not the purpose of this report to describe those detailed statutory requirements.

Study Area

Boundary of the Structure Plan

The Paynesville Growth Area extends west to Grandview Road, but must also consider relationships with land immediately to its west and the existing developed township areas on its borders.

As the boundary of Paynesville's future expansion, Grandview Road (at the Paynesville Road intersection) provides an important future threshold to the town. A distinctive point of entry at Grandview Road must be provided to signal arrival. The farmland immediately west of Grandview Road should be retained as an open rural landscape to ensure that urban development does not "bleed" beyond this point of transition. A new roundabout and the major entry point to the town will need to be provided at this intersection and view corridors to Lake King should be preserved.

Placement of future business and employment uses will be considered just outside the structure plan boundary as recommended by the Industrial Land Study, but must be located and designed so as to preserve rural vistas and avoid visual intrusion when viewed from Paynesville Road/Grandview Road.

The area subject to structure planning also includes land already zoned Residential that may be re-subdivided in the future, to ensure that the objectives and outcomes envisaged in the structure plan are achieved for this land.

The structure plan also includes consideration of the natural values of the adjoining foreshore and wetland areas, which will likely be managed as public land in the future to meet conservation and community recreation needs. The Structure Plan will reflect the principles and recommendations contained in the draft Paynesville Foreshore Management Plan, for preservation and enhancement of these important foreshore values and attributes.

Overall Direction for the Structure Plan

The structure plan aims to set a framework for growth in Paynesville that reinforces the existing town character, meets future community needs for housing variety, access, open space, and ensures community well-being. It needs to provide structure for future subdivision, and be flexible to allow for changes in market demands for different housing types.

It will provide for opportunities to support the economy of the town and meet localised demands for infrastructure and services by identifying all land use opportunities.

It will focus on strong structure for the public realm, road layout, access to foreshores and the surrounding street network, tree-lined streets and vistas.

It will seek to create a tree-canopied urban landscape similar to that currently viewed from the lakes and distant land areas towards the shore line and hinterlands elsewhere in Paynesville and surrounds.

Most importantly it aims to steer Paynesville's growth away from a more recent pattern of development that does not suit the local community, towards a vision that is more fitting, complimentary and respectful to Paynesville's lakeside character.

View of Newlands Drive area from Lake Victoria

Town Character

One of the key aims of the structure plan is to provide and enhance Paynesville's town identity.

This identity is characterised by:

- A spacious urban environment with housing variety on wide, landscaped street corridors;
- A simple, legible street network creating neighbourhoods that are well-connected and easily accessed by car, bicycle and on foot;
- Native landscaping in residential areas that provides a canopied streetscape, greenery, birdlife and a "country town" ambience; and
- Views and direct pedestrian access to the surrounding foreshores and waterways.

There is a strong community view that the form of more recent development in Paynesville has a more "suburban" look than the rest of Paynesville and has an alien "sameness" about it. Visually, the newer urban areas are more stark, repetitive and visually dominant and form a pattern that does not reflect the town's character.

The plan will not guide housing design. Rather, through structuring of the road network, landscaped pedestrian corridors, open spaces and main road corridors; and through variation in lot sizes and types, it is proposed to establish a strong vision of a town in a spacious setting, where housing blends more effectively into tree-lined horizons and views.

Paynesville's character is defined by lake views and access, wide regular streets, housing variety and a scattered tree canopy to soften street vistas and provide local greenery.

Generally, the plan will propose the return to a more regular grid pattern of streets, undivided by medians, with large native streetscape trees forming vistas to distant water view or horizons.

A north-south orientation of most residential streets will enable lots to maximise solar orientation, with living areas and backyards able to receive northerly sun. A lesser number of east-west oriented connector streets will provide direct connections to the existing town via Ashley and King Streets. At the slightly elevated locations, the streets will provide a distant view to the water.

Streets will provide on-street parking and a road reservation of sufficient width to allow generous nature strips and green corridors of native trees, to provide visual relief, shade and to attract birdlife. Regular patterns of streets, rather than circuitous layouts, will provide better access and a stronger sense of connectedness within neighbourhoods.


Ashley Street and Langford Parade - spacious street environments that characterise Paynesville

Drainage corridors will be landscaped as dual pedestrian/cycle paths, connecting people to school, town facilities and the foreshores. Neighbourhoods will be centred on "village greens" as shared public spaces (including intermittent water bodies for drainage where required) to enable passive recreation for families, children and older community members.

The aim is to establish a long-term landscape quality through early planting of landscape corridors, future public open space areas and road edges with a vision for the future urban landscape in mind.

Movement network and road design

The current road network has ample capacity for traffic growth. Traffic volumes post-development will be calculated and the road hierarchy will be established as a result, to ensure that distributor roads and local streets are deigned to suit the traffic volumes that they will carry.

Any potential upgrading of road or footpath infrastructure outside of the study area will also be modelled to ensure that improvements to existing roads are known and factored into developer contributions. For major intersection treatments, costs will be estimated and apportioned on the basis that the new developments are not the only contributors to required intersection improvements and so that an equitable cost allocation can be determined.

The key issues and responses for the road network are:

Issue	**Response**
Threshold treatment at Grandview Road	The Grandview Road intersection provides the key to maintaining a strong entry to town and a separation from Eagle Point. By maintaining the rural vista across land to the west of the intersection when approaching Grandview Road, the road intersection will provide a gateway. These rural parcels approaching Grandview Road from the west lie within the extremity of the Eagle Point Growth Area and should be considered for retention as undeveloped land. Replacement of trees on the south side of Paynesville - Bairnsdale Road is recommended in order to return the "tunnel of trees" effect when entering Paynesville. A roundabout will most likely be required for appropriate traffic management at this intersection.
Road orientation	Grid pattern on north-south, east-west axes. Where possible the opportunity to capture distant views along road corridors needs to be retained. North-south streets need not all connect to Newlands Drive and can be truncated for traffic at east-west drainage lines.

Traffic distribution	New traffic connections to Paynesville-Bairnsdale Road will be minimised. The street grid will maximise traffic distribution and will avoid culs de sac. Connection from east to west on the northern side of the structure plan area will be provided to enable alternative safe egress from the Fullarton Drive area, without creating a heavily-trafficked through road. A proposed road hierarchy will be modelled to predict traffic volumes.
Connections to existing network	Ashley and King Streets will provide access back into the town. The King Street extension will form the major distributor road in the new growth areas south of Paynesville Road. Local road connections to Newlands Drive will be provided at 2 or 3 locations, but will be designed to prevent through traffic.
Road design	A proposed road design similar to the main residential streets in Paynesville would provide a street profile that includes a parking and traffic lane each side of a single carriageway, a wide nature strip lined with native trees planted to create an almost continuous canopy.
Pedestrian/cycle connections	Off road pedestrian and cycle connections will be provided where possible along landscaped drainage corridors that connect neighbourhoods. Ashley Street will provide a footpath connection to the school. A strong pedestrian/cycle connection to Newlands Drive will be provided in the south-east corner of the site to give direct access to Sunset Cove and the Newlands Arm foreshore. Off-road paths through planted corridors will be provided where possible along Grandview/Waterview Roads, and along drainage lines.
Public Transport	Bus routes through the structure plan area will be considered to retain options for future local bus services. School bus stops along Paynesville-Bairnsdale Road will also be considered.

Tourism Use

Paynesville offers significant opportunity for further tourism development in the form of a resort, eco-tourism lodge or similar and that opportunity should be preserved in the structure plan. It provides the opportunity for new visitor accommodation and experiences, local employment and investment. The land on the north of Paynesville-Bairnsdale Road, immediately east of Waterview Road, has sloping topography and sweeping views across Lake King.

Corner of Paynesville Road/Grandview Road

It is ideally suited to high quality tourism development that is sensitive to the adjoining foreshores, preserves views across the higher ground from the Paynesville-Bairnsdale Road and allows development to sweep down the north-facing slope towards the foreshore, with access to a public walking path along the edge of the wetlands into Paynesville.

It is intended to plan to allow for such development in the future to complement and add to the visitor experiences offered in Paynesville.

Employment and Emergency Services Uses

Previous studies recommend the allocation of additional land for local (non-retail) business activity (trades, storage, domestic services, vehicle repairs, etc.). The study recommends options on either side of Grandview Road, south of the ridgeline, which coincides with the land from the ex-water board site to the south and the land opposite.

If it is accepted that land for business and employment is required (as recommended by the previous industrial land study and identified in the East Gippsland Planning Scheme), then it is a question of location.

It is problematic to locate a business park on the eastern side of Grandview Road as it would inevitably abut residential areas. If land is to be allocated for future low-impact business activity and emergency services, it should be outside the residential growth area, and setback from Grandview Road within a landscaped buffer to avoid visual impacts.

The western side of Grandview Road offers the opportunity for a business park to sit behind a landscaped buffer (15-30 metres wide) and below the ridgeline as viewed from Paynesville-Bairnsdale Road.

Low-impact, non-retail business uses would provide opportunities for local trades, automotive servicing, self-storage and household servicing activities to meet demand for local services and employment. Businesses would be restricted to low impact land uses.

The area shown hatched on the plan is the preferred site for a proposed business park and emergency services precinct, as identified in the previous study to identify land for non-retail business in Paynesville.

The site provides separation from the existing residential areas and enables creation of a landscape buffer on the western side of Grandview Road, which can serve as a dedicated cycle/pedestrian corridor to link the southern and northern foreshores.

As the area is outside the structure plan area, the structure plan is not dependent on a decision as to whether to proceed with the zoning of land at this location. It is an option to be considered.

Whether or not the business park proceeds, the existing tree corridor on Grandview Road will signify a change in the road environment as traffic approaches Paynesville on this road. A landscaped corridor on the western (right-hand) side of Grandview Road can provide off-road access from Paynesville-Bairnsdale Road to Newlands Drive for cyclists and pedestrians, but this would only be possible if developed in conjunction with the establishment of a business park.

Grandview Road South

There is a need to confirm land area, landscaped setback and measures for visual screening and transition to the calmed traffic environment proposed for this southern section of Grandview Road.

Service Station

Paynesville currently has one service station, once located on the entry to town, but now not well located or structured since the town has grown.

There is interest in a service station site being identified further west and this needs to be factored into planning for road connections to Paynesville-Bairnsdale Road, landscape corridors and location of other land uses.

The proposed structure plan will include an option for a service station site on the main road, west of the cemetery, with service road access to maintain suitable setbacks and landscaped corridors more specifically to enable the recreation of the 'tunnel of trees' on Paynesville Road and safe traffic connections.

School site

The only likely scenario for the establishment of an additional school within the growth area is for a Catholic primary school – with interest previously expressed by the local Catholic Parish. The choice of location will be determined by arrangements between landowner and purchaser, the criteria for selecting a site will be recommended and options for location considered on that basis.

An example of an indicative site will likely be included in the draft structure plan.

Aged Care / Retirement Facility / Lifestyle Village concept

There is likely to be a need for aged care or elderly housing components to land use in the growth area. Accessibility, size and form of any facility will be considered. The aim will be to integrate any such facilities into the proposed neighbourhood design, where possible, rather than the creation of "gated" communities.

Aged care and aged accommodation facilities can and should be integrated within residential areas and designed to reflect the overall residential character of local neighbourhoods.

Drainage and Hydrology

The structure plan area generally consists of two sub-catchments with a watershed running roughly parallel to the Paynesville-Bairnsdale Road, on the south side. Land to the north of this line drains through a series of gullies to Lake King and land to the south directs stormwater towards the south-western corner of the site and into Newlands Arm. At the eastern end, land falls generally towards the drainage structures in and adjacent to King Street.

Natural drainage corridors will support environmentally sensitive waterway management consistent with the Shire's 'Urban Waterway Guidelines'. Where possible, stormwater will be retained in 'natural' settings (grassed swales and stormwater detention basins) to reduce flow and prevent impacts on surrounding wetlands. Natural drainage corridors will form open space reserves in public ownership and will drain into constructed wetlands at low points toward the edge of the structure plan area. Constructed wetlands will be included in public open spaces and will need to be designed to ensure maximum amenity value and public safety. They will be intermittently wet.

Further confirmation of the site's hydrology will inform more detailed planning for the location and size of drainage facilities.

Native vegetation, vegetation corridors and landscape themes

The growth area contains some stands of significant trees and individual remnant specimens that should be retained consistent with native vegetation policy and guidelines, where possible.

Existing stands of native vegetation will be incorporated into public open space and expanded foreshore reserves where practical to do so. Significant groups of trees and single tree specimens will be included in neighbourhood open spaces or road reserves, however there may be locations where this is not practical. Any required removal of native vegetation must include provisions for vegetation offsets, which will be the responsibility of land developers as required by current State Government policy.

The entry to Paynesville traditionally had a corridor of mature trees on each side of the road, as is the case at the southern end of Grandview Road. The character through various parts of the town is defined by these dominant native street trees and they provide habitat values, especially for birdlife.

Large trees also define the vista towards the town from the lakes and distant land areas, such that Paynesville's houses generally sit below and within a higher tree canopy. While this is more difficult to achieve on the gently sloping north-facing shores, domestic gardens and street trees within this area do not currently make a significant contribution to landscape values.

A key aspect to creation of the landscape character will be to plan for the early establishment of landscape corridors, and planted avenues, together with the retention of existing large trees. The aim will be to frame views, both to and from these northerly sloping land areas, to ensure the desired landscape character is delivered in the minimum timeframe. Suitable native species will be used to achieve a balance between vegetation and views, and plantings will also need to take account of fire risk.

Public Open Space

A social impact assessment will be conducted to ensure that the needs of households and families in the growth area are met by community facilities, pedestrian/cycle facilities and recreation spaces.

Initial indications are that the structure plan area does not require additional large-scale formal recreation or sporting facilities due to proximity to existing facilities. Foreshore areas and sports

grounds form "district" open space for the whole town and the Lake King foreshore provides an opportunity for a large foreshore reserve, accommodating cycle/pedestrian paths, viewing areas, picnic facilities, etc.

Local open spaces should primarily consist of:

- A central "village green", for each neighbourhood, accommodating drainage basins where needed, to provide a central play and relaxation space, in a semi-natural setting. Facilities on such spaces would be limited to play and picnic facilities, seating, etc.
- Off-street pedestrian/cycle corridors along drainage corridors, linking village greens and providing safe access.

Wetlands and foreshore areas

Preservation of the wetlands and foreshore area is of the highest priority. The exclusion of low-lying areas adjacent to the foreshore from development will create additional space for a larger vegetated buffer to the south of the existing walking path, from Eagle Point to Paynesville, adjacent to Lake King.

By relocating the walking path approximately 50 metres inland, an area would be created to allow for the "retreat" of vegetation from the shoreline, a realigned path and the planting of a wider corridor between the foreshore and future private development.

Foreshore path and fringing vegetation

Future management of the foreshore area needs to be determined, but there is a significant public interest in increasing the foreshore reserve with no disadvantage to landowners, as the land in question is not developable due to inundation.

The pedestrian connection and foreshore vegetation need a slightly wider corridor to allow for vegetation "retreat" and public use.

It is most likely that Council will need to take future responsibility for management of public foreshore areas.

Where possible, the extension of roads to provide safe egress connection for Fullarton Drive and Bay Road should generate a line of demarcation between housing and the foreshore reserve / landscape zone, avoiding the creation of back fences onto the foreshore reserve.

Servicing Infrastructure

Essentially all of the land has access to existing water, sewer, power and gas services and these can be extended into the structure plan area at the cost of individual developers. The Developer Contributions Plan will need to identify any future upgrading of intersections necessitated by increased vehicle numbers and allocate costs accordingly. Where the creation of drainage corridors and constructed wetlands is required across landowner boundaries, these costs will also be apportioned between benefitting landowners.

Specific servicing capacity and costs will be further investigated once a draft structure plan is prepared, to ensure that any necessary upgrades to servicing infrastructure are identified and

costed. Land developers will be obliged to contribute the cost of all infrastructure required to service new subdivisions and to make a financial contribution to any upgrading of infrastructure outside the area of their landholdings.

Where necessary these costs will be apportioned between benefitting developments.

Community Infrastructure

Land for neighbourhood open space (including any facilities required in initial stages), pedestrian/cycle paths, constructed wetlands for drainage, and any increased demand on existing community facilities within the town will be examined as a component of the Developer Contributions Plan.

The social impact assessment will confirm requirement for the future population, both in terms of new and expanded community facilities and the required developer contributions for such expansions will be factored into the Developer Contributions Plan.

Cultural Heritage

A cultural heritage assessment is to be conducted to provide further information on any significant sites and the measures recommended for their protection.

There are a few known cultural heritage sites within the growth area, mainly significant trees and a broader general area south-west of the Paynesville-Bairnsdale/Grandview Road intersection. It is likely that this area is significant for its views, rather than any artefacts, however this will be further investigated as part of the cultural heritage assessment.

The structure plan will seek to accommodate significant trees in road reserves or public open space. Developers will be required to undertake further detailed cultural heritage assessments at the subdivision stage, including the implementation of specific measures to protect any significant sites identified.

Staging

As services are generally available to the whole structure plan area, there are no obvious inefficiencies or costs associated with development occurring on more than one front at the same time. Conversely, due the small number of landowners, any strict mandated sequencing of land development may in fact create a “monopoly” situation on land release, if one owner is dependent on another to proceed.

In order to maximise the availability of a range of housing products, there is an argument for the release of land in more than one location at one time, so that developers can provide a range of products, depending on locational attributes, lot sizes and the segment of the market that is being targeted.

Another important consideration is that the funding of key infrastructure improvements, particularly the initial road access from the surrounding roads, intersection upgrades and creation of drainage and pedestrian/cycle corridors will be made easier if more than one landowner is able to commence development in the initial stages. A staging scenario will be prepared to consider these issues and the most logical initial stages for each of the land holdings.

Bearing in mind the quite slow rate of current growth, it is beneficial to allow development to proceed in small stages on more than one front, in order to generate landowner contributions to the initial public infrastructure (intersections, open space, cycle/pedestrian ways, etc.).

Housing Density

The neighbourhood character of Paynesville is generally dominated by larger allotments than modern day residential densities would produce. The structure plan will aim to ensure that a range of allotment types, sizes and styles are able to be developed to cater for all aspects of market demand within the growth area.

The Planning Scheme sets a notional target of 8-10 dwellings per hectare for greenfield development. This will be achievable in some parts of the growth area in early stages (5-10) years, but will take much longer across the whole area. The preferred objective is to achieve a range of housing products to suit different segments of the market and maintain a subdivision character more suited to the town than some recent residential development.

With a view to intensification over the long-term, there is potential for larger lots to be created within a structure that allows for pre-ordained future subdivision.

This would enable "lifestyle" lots to be developed at some locations in earlier stages, then converted to a more dense lot layout over time.

Potential re-subdivision of larger lots with new access street

The successful implementation of this concept would be dependent upon the creation of a mechanism to facilitate the future subdivision of these temporary larger allotments and provide the new rear street and servicing connections to service additional housing development.

Conclusion

This 'Issues and Responses' Paper provides commentary on each of the key issues to be considered in preparation of the draft Paynesville Growth Area Structure Plan and suggests responses based on current best practice in planning for urban growth, and community consultations undertaken to gauge community views on various aspects of future growth.

The draft Structure Plan will take the next step of articulating these issues in a geographic plan and provide a basis for further discussion and refinement of the concepts, including evaluation of traffic implications, infrastructure requirements and costs and further community and stakeholder responses.