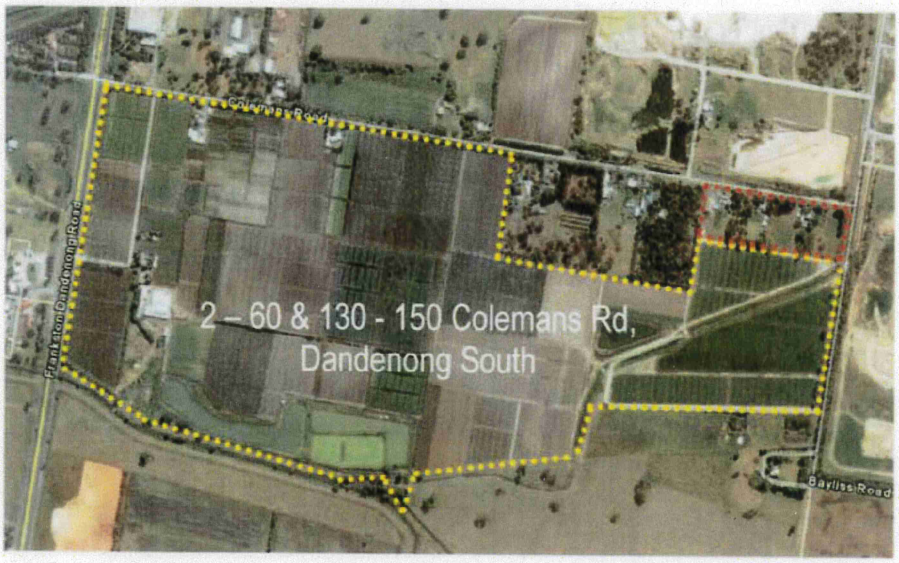
# INNOVATION PARK
# DEVELOPMENT PLAN

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June 2010

Pursuant to Clause 43.04 Schedule 6 of the Greater Dandenong Planning Scheme this is a copy of the Development Plan for part of the land defined as DPO6 and particularly with reference to the Lyndhurst Precinct. This Dandenong South Industrial Site Development Plan (No. 3) has been prepared to the satisfaction of the Responsible Authority. Once the Development Plan has been approved by Council, Council retains the sole right to amend the Development Plan.

Signed _____ 22 June 2010
by Manager Planning and Design
City of Greater Dandenong

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Table 3 – Heritage Assessment Report

| ELEMENT | RESPONSE | ITEM NO. |
|---|---|---|
| A Heritage and Archaeological Assessment Report | See summary and plan from the approved Cultural Heritage Management Plan (CHMP). For further details on the complete CHMP please contact the City of Greater Dandenong or Aboriginal Affairs Victoria and ask for CHMP no. 10403 | Plan 4.1 (Pt 4) |

Table 4 – Environmental Management Plan (EMP)

| ELEMENT | RESPONSE | ITEM NO. |
|---|---|---|
| Environmental Issues affecting the land | See Development Plan | Plan 2.1 (Pt 2) |
| Goals and Objectives of the EMP | See discussion in Part 5 | Pt 5 |
| Measures to ensure landscaping of environmental significance | See discussion in Part 5 for measures proposed to ensure appropriate landscaping of areas of environmental significance. | Pt 5 |
| Erosion and silt control during construction | Measures to control erosion and silt control during construction. | Pt 5 |
| No access open space areas | In accordance with the City of Greater Dandenong, Dandenong Sth Native Vegetation Precinct Plan 2009 | |
| Overview of wetland design details | All water bodies to be vested in Melbourne Water | Pt 5 |
| Storm water management plan | See Storm Water Management section in Part 7 | Pt 7 |
| Storm water management measures | See Storm Water Management section in Part 7 | Pt 7 |
| Requirements of the Dandenong Sth Native Vegetation Precinct Plan 2009 | The requirements of the Dandenong Sth Native Vegetation Precinct Plan 2009 will be complied with. | Pt 5 |
| Native vegetation offsets | N/A | |
| Method of protection of reserve areas to be vested in Council | See discussion in Part 5 | Pt 5 |

Table 5 – Integrated Transport Plan (ITP)

| ELEMENT | RESPONSE | ITEM NO. |
|---|---|---|
| Provision of access to the existing road network | See Integrated Transport Plan<br>Further detail can be found in the GTA Report in Appendix 3 | Plan 6.1 (Pt 6) |
| Adequate pedestrian and cycle ways and accommodation of potential public transport routes and infrastructure | See Integrated Transport Plan<br>Further detail can be found in the GTA Report in Appendix 3 | Pt 6 |
| Integration with the Principal Public Transport Route | See Integrated Transport Plan<br>Further detail can be found in the GTA Report in Appendix 3 | Pt 6 |
| Other matters | See Integrated Transport Plan<br>Further detail can be found in the GTA Report in Appendix 3 | Pt 6 |

Table 6 – Stormwater Management Plan

| ELEMENT | RESPONSE | ITEM NO. |
|---|---|---|
| Construction and maintenance requirements for water bodies and wetlands. | Comply with the requirements of Melbourne Water Corporation. | Pt 7 |
| Details of stormwater management measures. | Development to accord with the key principles stated in the "Urban Stormwater – Best Practice Environmental Management Guidelines" –CSIRO 1999 | Pt 7 |
| How development will comply with best practice environmental management or urban stormwater. | All development is to demonstrate use of best practice WSUD to Melbourne Water Corporation and /or City of Greater Dandenong satisfaction | Pt 7 |

## 1.3 Development Plan Area

The DP is split into two parts.

Part 1 covers 2 – 60 Colemans Road, Dandenong South which is to be known as "Innovation Park Industrial Estate" (The Estate), and;

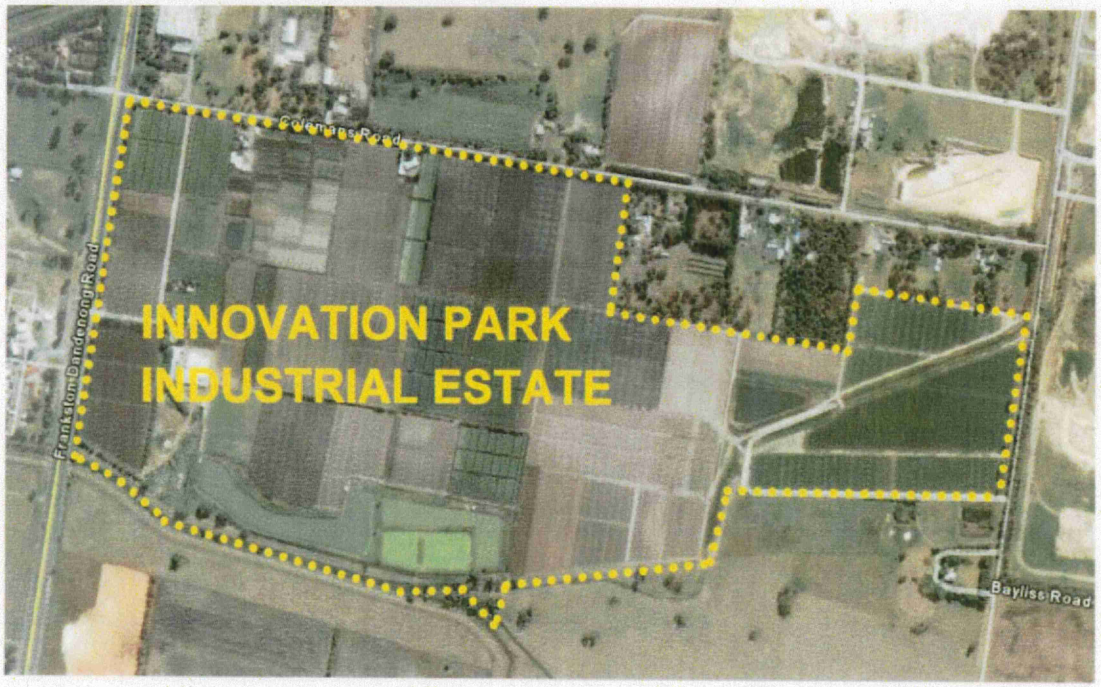
Part 2 covers 130 – 150 Colemans Road, Dandenong South.

Part 1 has an area of 73.8ha and consists of 6 lots with the following description:

| LOT No. | LP/TP No. | AREA (ha) |
|---|---|---|
| LOT 1 | TP748102H | 3.74 |
| LOT 1 | LP87061 | 6.03 |
| LOT 9 | LP24876 | 0.81 |
| LOT 1 | TP623548M | 27.41 |
| LOT2 | LP87061 | 31.81 |
| LOT1 | TP381476F | 4.01 |

The Estate enjoys a frontage to Colemans Rd of 814.02m, a frontage to Frankston -Dandenong Rd of 533.25m, and a frontage to Taylors Rd of 299.04m.

**Photograph 1 – Aerial View of Innovation Park Industrial Estate**



Photograph 2 – 130 – 150 Colemans Rd, Dandenong South


Part 2 consists of 28.4ha and is broken up into 4 lots with the following details:

| LOT No. | LP/TP No. | AREA (ha) |
|---|---|---|
| LOT 5 | LP24876 | 6.125 |
| LOT 6 | LP24876 | 7.089 |
| LOT 11 | LP310684 | 15.170 |
| LOT 12 | LP310684 | |

Note: Reference to the Estate in this document should be read to mean both Innovation Park Industrial Estate and 130 – 150 Colemans Rd unless specified.

## 1.4 Previous Use

As clearly indicated in the Photograph 1, Innovation Park has been utilised for market gardening for an extensive period. (Photo Date est. 2004). The remainder of the area, contained in 130 – 150 Colemans Rd, continues to be used as rural residential allotments.

# 2.0 The Development

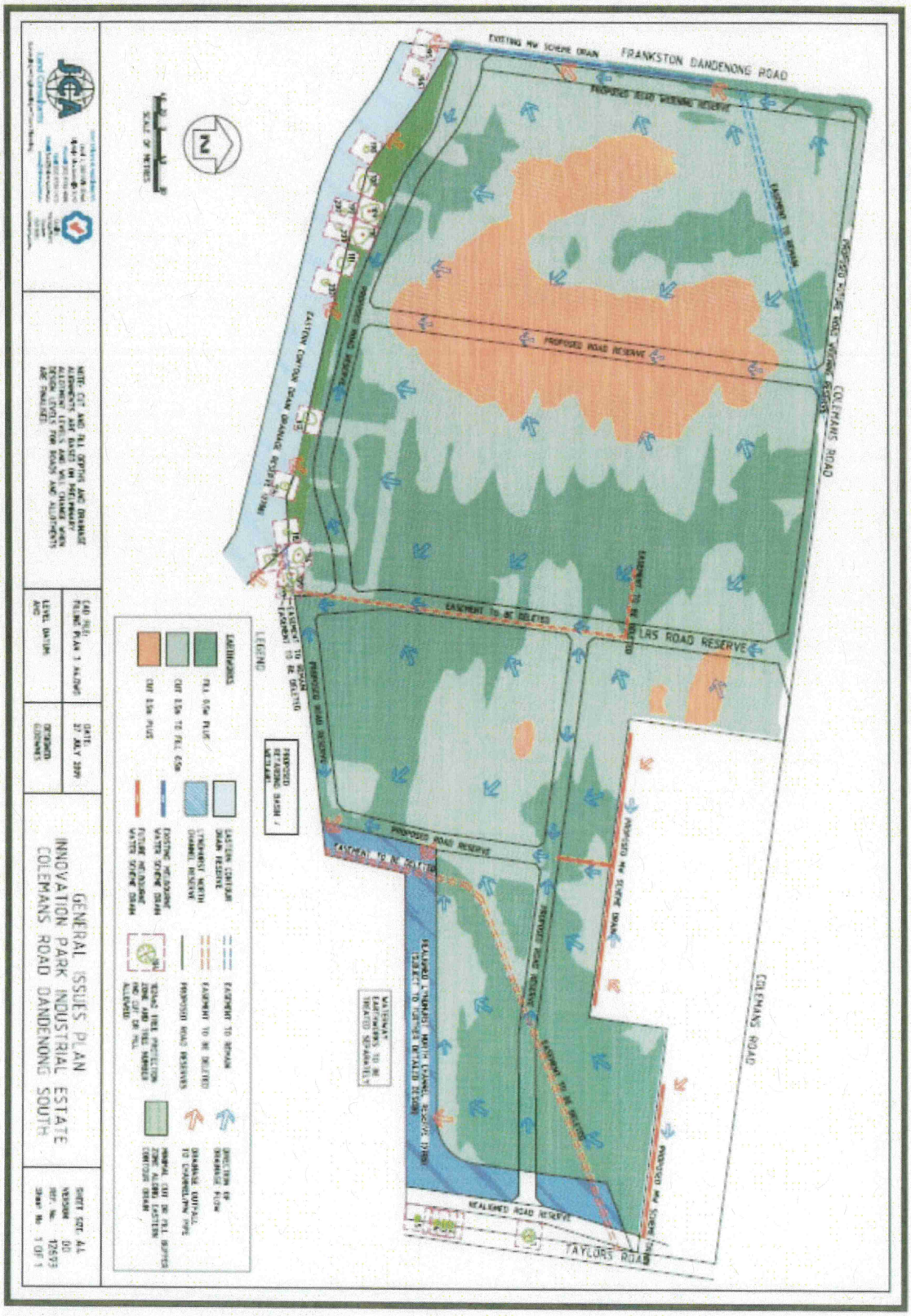
## 2.1 The Development Plan

Plan 2.1 – The Development Plan


(An A3 version is contained in Appendix 1)

## 2.2 General Issues Plan

Plan 2.2 – General Issues Plan




(See Appendix 3 for an A3 Copy of the Plan)

## 2.3 Significant Features on the Land and Adjoining Land

The key features of the Estate are:

- A single ownership;
- Essentially cleared;
- A slight slope from north to south;
- A drain on the eastern side of the land which is to be relocated to run along the south east boundary of the site;
- The drainage easements are proposed to be modified as part of the development of the Estate;
- Dams located at the southern end of the site.

The key features of 130 – 150 Colemans Rd are:

- Lightly vegetated;
- Limited development opportunities due to the small size of each lot; and
- Fragmented ownership.

The Estate currently has four distinctive interfaces:

1. Roads in the form of Frankston-Dandenong Road to the west, Colemans Rd to the north and Taylors Rd to the east;
2. Eastern Contour Drain to the south;
3. Lightly to heavily vegetated rural residential lots on 80 – 150 Colemans Rd; and
4. Farm land at 845 Taylors Rd to the south east.

130 – 150 Colemans Rd has three distinct interfaces:

1. Taylors Rd to the east and Colemans Rd to the north.
2. Heavily vegetated land at 120 Colemans Rd.
3. Cleared farmland in Innovation Park Industrial Estate to the south.

The broader site context is:

- East – SITA Lyndhurst Landfill on the opposite side of Taylors Rd;
- South - The Jayco Caravan Factory on the southern side of the Eastern Contour Drain;
- West – The Willow Lodge Mobile Home Village on the western side of the Frankston – Dandenong Rd; and
- North – Colemans Rd West Industrial Development along with a parcel of former Melbourne Water land directly abutting the Eumemmerring Ck and a current sand mining license on the corner of Taylors and Colemans Rd.

## 2.4 Native Vegetation to be Retained

The location and retention of native vegetation shall accord with the Dandenong South Native Vegetation Precinct Plan - January 2009 as incorporated into the Greater Dandenong Planning Scheme. (See Plan 2.1)

## 2.5 Native Vegetation Protection Zones

Not applicable in this instance as the Estate has no significant vegetation other than in areas proposed to be vested to Melbourne Water or to Council for the deviation of Taylors Rd. (See Plan 2.1)

(The vegetation within 130 – 150 Colemans Rd is to assessed separately)

## 2.6 Proposed Public Open Space Network

Public open space is to address four principles:

- Opportunities
- Passive Recreation
- Conservation
- Aesthetics

### 2.6.1 Opportunities

Convenient opportunities should be provided for workers to walk, run or exercise during, before or after work. This can be via formal paths and exercise areas or informal areas which have a range of functions. The location, quantity and specifications of improvements within the Public Open Space (POS) area are to be provided at the detailed design stage.

Given that any worker will be at most, 650m from the key POS on the Melbourne Water Drainage Reserves, additional pocket parks within the Estate are not required. Adequate linkages to the POS areas are to be provided either via the local road network or the shared pedestrian/cycling network on Discovery Road. Linkages between the Melbourne Water Drainage Reserves, retarding basins and the adjoining roadways are to be provided to ensure any walking paths interconnect.

All recognized recreation areas, including pedestrian paths, are to be located above the 1 in 5 flood level within the Melbourne Water Drainage Reserves.

### 2.6.2 Passive Recreation

Passive recreation areas are to be located within the Melbourne Water Drainage Reserves to allow the playing of sports on an informal basis. These may consist of simple grassed or fine gravel areas to allow impromptu games to be played. Large scale industrial/warehousing facilities, more isolated from the lineal network, should provide inhouse recreation facilities.

### 2.6.3 Conservation

Conservation and maintenance of ecological processes is recognized in planning policy as a key role of open space. Provision should be made to incorporate, with appropriate design, paths and passive recreation and protection measures along side areas designated for conservation. In the Estate, the Melbourne Water Drainage Reserves are to provide a range of functions including conservation, flora and fauna habitats and corridors, and passive recreation. Passive recreation areas are to be located to ensure the safety for the users from flood waters, falling limbs from trees and other matters.

Planting of conservation areas must utilise indigenous species within open space areas suitable for local microclimates. Non indigenous, non invasive, species may be considered for high intensity areas such as picnic areas.

### 2.6.4 Aesthetics

POS is to incorporate large shade trees, other appropriately placed native vegetation, walking paths and attractive sitting areas, all within an aesthetically pleasing design so to provide a heightened sense of enjoyment and therefore encourage a greater use of the area.

## 2.7 Urban Design Guidelines for Development

### 2.7.1 Building Setbacks

Buildings are to be setback in accordance with the following table:

| | **Arterial Rd (unless fronting a Service Rd)** | **Collector Rd** | **Local /Service Rd** | **Sideage to Arterial Rd** | **Sideage to local and Collector Rds** |
|---|---|---|---|---|---|
| **Building Setback (minimum)** | 20m with a minimum of 5m landscape strip between property boundary and any car parking | 9m with a minimum of 3m landscape strip between the property boundary and any car parking | 6m with a minimum of 3m landscape strip between the property boundary and any car parking | A 5m building setback which is to be landscaped | A 3m building setback which is to be landscaped |

- Buildings may be constructed to the side boundary of lots. If buildings are not built to the side boundary they should be setback from the relevant boundary in accordance with relevant Building Regulations.

### 2.7.2 Appearance

**a) <u>Design</u>**

The design and siting of industrial and warehouse buildings shall ensure:

- High standards of design and appearance where visible from the street. (This should be taken to be read in the context of a fully developed industrial estate, not isolated initial stages of development where all sides are often visible)
- Buildings on prominent gateway locations or prominent main road interfaces should adopt innovative and interesting designs to lift the appearance of the Industrial area. This is particularly pertinent for the intersections of

Frankston Dandenong Rd and Colemans Rd, Discovery Drive and Colemans Road, Discovery Drive and the Eastern Contour Drain Bridge, Innovation Drive and Frankston Dandenong Road, and adjacent to the intersection of Edison Road and Taylors Road.

- Corner buildings will address both frontages.
- Signage is to be integrated with the design of the building and to not exceed the height of the building.
- Buildings are of a scale and massing that coordinate well with other buildings in the immediate area.
- Buildings are to face public open space where possible or where not possible, incorporate landscaping to screen sides of buildings from public open space.
- Buildings within 50m of any dwelling must be designed to minimize any off site impacts, for example: no loading bays facing dwellings.
- Office components of buildings are to be attractive, well proportioned and located at the front of the building.
- Utilization of common themes in design, materials and colours to avoid buildings appearing disjointed and uncoordinated.
- Buildings should generally not exceed 12m unless specific industrial/warehousing processes can justify exceeding that limit.
- Where possible within developments, pedestrian, cycling, car and truck traffic are to be kept separated.
- All design outcomes should take into consideration the Dandenong South Industrial Area Extension Structure Plan Jan 2009

The design and siting of any non industrial buildings within the area shall ensure:

- A high standard of design and appearance when visible from the street. They should clearly indicate the nature of the building via design, advertising, landscaping and easily accessible car parking. This section is predominantly aimed at support uses such as Cafés or other such support services.
- Buildings are of a scale and appearance to improve on the attractiveness and vitality of the area.

**a) Materials**

The materials used in the construction of industrial and warehouse buildings are to comply with the following:

- Buildings are to be designed, built and operated in an environmentally sustainable manner particularly in regards to building materials, finishes and operations.
- Highly visible components of buildings should avoid slab appearances through the use of articulation, colour and mix of materials.
- The use of long lasting materials to minimize maintenance and ensure a high quality appearance over the life of the building.
- Highly reflective materials are not to be used except on roofs that are not visible from the street.

**b) Services**

- Service areas are to be screened from the street.
- All services, where possible or practicable, including electricity supply, are to be located underground.

**c) Fencing**

- Fences should not to be located in front of a building. (A permit may be applied for to vary this requirement, but this should only be in exceptional circumstances and to Council's satisfaction)
- The extent and design of fencing is to be shown on the landscape plan.
- All visible fences are to be semi transparent in nature, and if cyclone mesh is used, then it should be black poly coated.
- Maximum height of fencing is to be 2.1m with optional 3 strand barbed wire to top (above the 2.1m height limit) where security is required.

**d) External Lighting**

- All premises must provide external lighting to ensure adequate site security.
- All car parking areas must be provided with suitable lighting to ensure safety and security of users after dark.
- All lighting should be located, directed and baffled to limit light spill beyond the site boundaries, in particular over adjoining residential areas.

### 2.7.3 Operational Issues

**a) Car Parking**

- Sufficient on-site car parking for staff, the disabled and visitors is to be provided for each development.
- Car parking numbers are to be calculated only on floor areas which will contribute to car parking. It does not include areas such as toilets, computer rooms and stairwells etc.
- On street car parking may be included in the overall car parking calculations where on street parking has been specifically provided for the adjacent development.
- On site car parking may be deferred where it can be shown that the current use does not require the total amount of car parking to be provided on site at that time. Areas of deferred parking must be attractively landscaped and included in any landscape plan. Any changes in use will require the deferment to be reassessed.
- All car parking areas must be suitably landscaped. Car parking in front of buildings must be adequately screened from view from a road with appropriate landscape treatment.
- Large areas set aside for car parking should be provided with landscape islands to allow the planting of approved shade trees and low level under planting. Landscape islands should be a minimum of 1.2m in width and should be provided every 10 car spaces.
- Where possible car parks should not interact with truck accessways and parking. This can be addresses through separate entries.
- Car parking spaces and access aisles are to comply with the Greater Dandenong Planning Scheme.
- Unsecured car parking areas should be visible from the interior of the building.

**b) Truck Parking**

- Land uses generating regular truck movements must provide designated truck parking. This will be in addition to spaces provided within loading bays in accordance with the requirements of the Greater Dandenong Planning Scheme.

**c) Loading Facilities**

- Loading and servicing areas shall be designed so that these activities can be conducted wholly within the boundaries of the site.
- Loading and servicing areas should be designed as an integral part of the development on each site. It is preferable that loading bays be entirely screened from view however where this is not possible due to lot size or orientation then loading and servicing areas are to be maintained in a neat and orderly condition at all times.
- The dimensions of all loading facilities must be in accordance with the provisions of the Greater Dandenong Planning Scheme.

**d) Crossovers**

- Each lot is to be provided with access via a crossover in accordance with Council guidelines.
- Crossovers should seek to avoid vehicular conflict and should enhance the streetscape. Where possible crossovers should be located side by side in order to maximise landscaping within the frontage of each lot.

**e) Undeveloped Areas**

- All undeveloped areas within the Development Plan area are to be kept in a neat and tidy condition. All grassed areas are to be regularly mowed and no rubbish is to be dumped on vacant land. Where rubbish is illegally dumped on the site, that rubbish should be removed at the earliest opportunity.
- Given the uncertainty of timing of the stages and the large area of cutting and filling envisaged to be undertaken across the site, storage of top soil and clean fill to be utilised in the completion of stages can be stored on the site provided they comply with relevant EPA guidelines and to the satisfaction of Council.

## 2.8 Landscape Concept Plan

- Landscaping shall be generally in accordance with the Plan 2.3.

## Plan 2.3 – Landscape Concept Plan


(See Appendix 5 for an A3 Copy of the Plan)

### 2.8.1 Landscaping of the Site

- The area within 130 – 150 Colemans Rd must provide a separate landscape plan to the satisfaction of the Responsible Authority.
- Road reserves shall be designed to provide sufficient space to accommodate street tree planting, nature strips and footpaths
- Landscaping should generally consist of Australian natives or other drought tolerant plants.
- Landscaping should be designed as an integral part of any development and assist in creating a unified appearance and in improving the environmental quality of the area.
- Landscape areas which are narrow and poorly maintained should be avoided. Landscaping should build on the character of the industrial area rather than clash.
- If a landscape area adjoins a car park, mechanisms should be put in place to protect the landscaping.
- Watering of landscaping should be provided in an environmentally sustainable manner.
- Landscaping will be maintained to a high standard and generally remain consistent with an approved landscaped plan.
- Water Sensitive Urban Design should be incorporated into the development where possible.
- Landscaping should seek to ensure a well designed interface between developments and public open space to maximise use of the POS and provide passive safety.
- A key design objective of the Landscape Concept Plan for Innovation Park is to provide for boulevard treatments, building on the wide lineal nature of industrial roads. This will be particularly the case for Discovery Rd as it is a critical traffic and theme link between the industrial estates to the north and south.

### 2.8.2 Gateways

- All key gateways are to incorporate, via urban design and landscaping treatment, a heightened sense of entrance.

## 2.9 Fill and Excavation

Filling and excavation of the site will be generally in accordance with Melbourne Waters requirement for buildings to be above the 1/100 yr flood incidence plus 300mm freeboard or as required to the satisfaction of the Responsible Authority. See Plan 2.2.

## 2.10 Integration with Adjoining Industrial Land

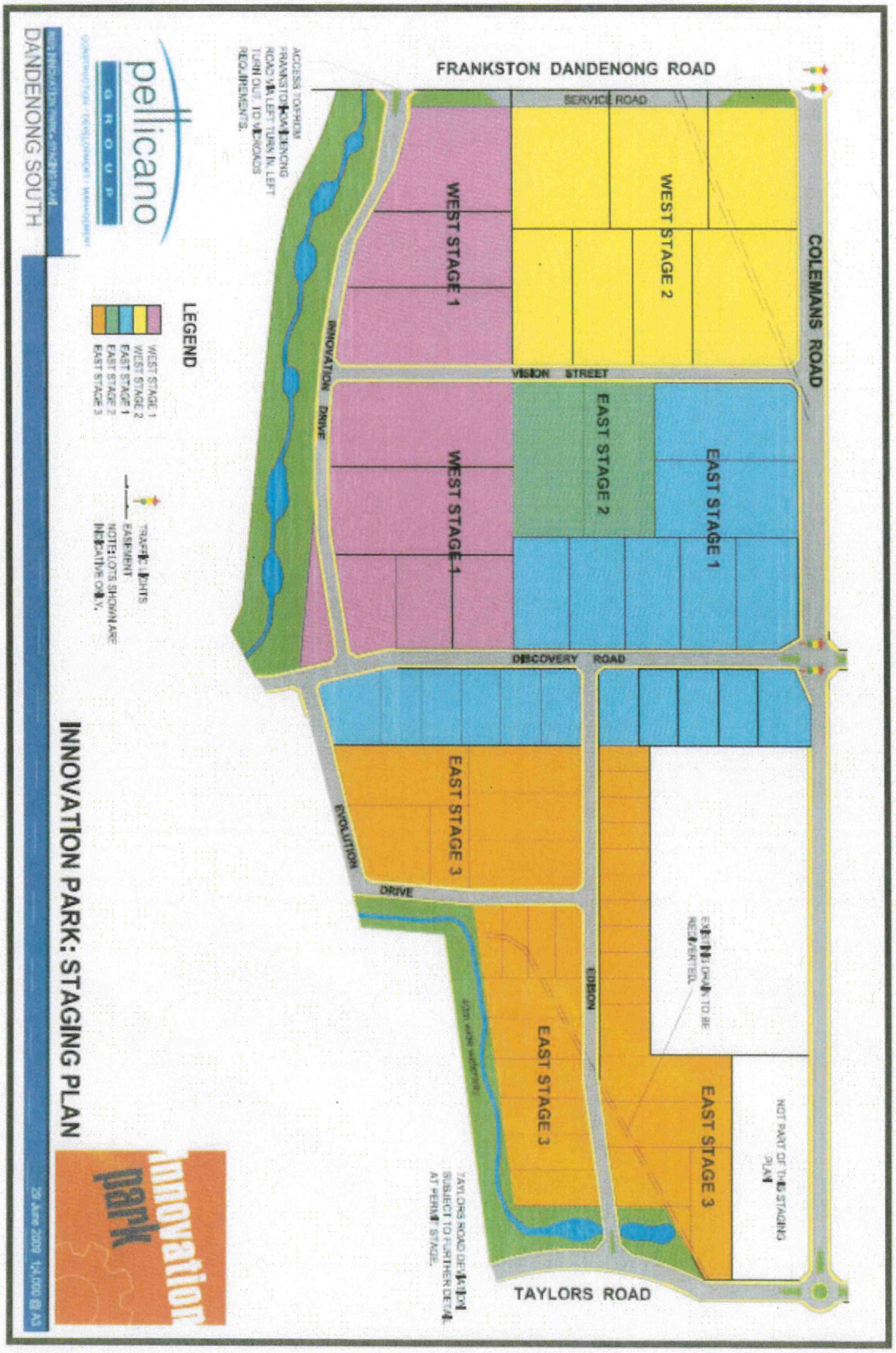
As a result of relocation and widening of drainage reserves, Innovation Park Industrial Estate will only directly interface with the rear of the small lots abutting Colemans Rd. There will be no connectivity between Innovation Park and those small lots.

The Industrial Estates to the north of Colemans Rd and to the south of the Eastern Contour Drain will connect via Discovery Rd and associated bridge. See Plan 2.1

# 3.0 The Staging Plan

## 3.1 Details of Proposed Staging and Timing for Innovation Park

Plan 3.1 - Staging Plan



## 3.2 Details of Proposed Timing for Innovation Park

Innovation Park is proposed to be developed in the following order:

- East Stage 1 – (2010)
- East Stage 2 – (2010/2011)
- East Stage 3 – (2012/2013)
- West Stage 1 – (2010/2011)
- West Stage 2 – (2011/2012)

The key to the development of Innovation Park is the construction of Discovery Rd (LR5) from Colemans Rd through to the Eastern Contour Drain. This will facilitate construction of services and subdivision along the central spine provided by the road.

Other key works required is the relocation of the drain from Lyndhurst to run along the southern side of the property boundary and into the proposed Melbourne Water Retarding Basin. This can only occur once the Retarding Basin is constructed.

Further development of the subdivision depends largely on demand for lots, however Staging Plan 3.1 provides an indication on approximate staging. The layout and timing on this plan is to be considered indicative only and should only be considered a guide to future development.

Adoption of a flexible approach to lot design, size and staging/timing will maximize the utilization of the land and facilitate rapid take up. With the consent of the responsible authority, the stages proposed above may be altered to accommodate alternative development options.

# 4.0 Heritage Assessment Report

## 4.1 A Heritage and Archaeological Assessment Report

### 4.1.1 Summary of Cultural Heritage Management Plan

A summary of the Cultural Heritage Management Plan can be found in CHMP No. 10403.

The Innovation Park Industrial Estate Cultural Heritage Management Plan does not include 130 – 150 Colemans Rd.

### 4.1.2 Recommendations of the Cultural Heritage Management Plan

Development of Innovation Park shall comply with the Management Recommendations as contained in of the approved Cultural Heritage Management Plan No. 10403. (A copy of the approved Cultural Heritage Management Plan can be viewed at the City of Greater Dandenong Office or at Aboriginal Affairs Victoria)

# Environmental Management Plan

## 4.2 Environmental Issues Affecting the Land

The past market garden use of Innovation Park has ensured that environmental issue impacting on the site are limited to drainage, specifically, the adjacent Eastern Contour Drain and the small drain rising to the east of Taylors Rd.

Land contained in 130 – 150 Colemans Rd is not covered by this Environmental Management Plan.

## 4.3 Goals and Objectives of the Environmental Management Plan

### 4.3.1 Environmental Goals

The key environmental goal of the Innovation Park Development Plan is to create a leading industrial estate which, by design and careful planning, ensures businesses and environment interacts symbiotically resulting in a destination of choice for industries and warehousing in the South East of Melbourne.

### 4.3.2 Environmental Objectives

- To minimize the environmental footprint of developments within the Estate;
- To maximise industrial usage of areas of low environmental sensitivity while simultaneously creating a sustainable flora and fauna habitat along developed watercourses.
- To ensure compliance with all relevant authorities environmental guidelines and policies.

## 4.4 Landscaping Measures for Areas of Environmental Significance

The only area of the site that has the potential for environmental significance is along the watercourses. Landscaping of those areas will be undertaken in consultation with Melbourne Water.

## 4.5 Erosion and Siltation Control during Construction

Relevant responsible authority development guidelines controlling potential erosion and siltation issues shall be complied with at all times during construction of the Estate and associated waterways.

### 4.5.1 Construction Environmental Management Plan (EMP)

A Construction EMP shall be approved by the responsible authority prior to commencement of any works on the site.

## 4.6 No Human Access Open Space Areas

Access shall accord with the directions of the City of Greater Dandenong's Dandenong South Native Vegetation Precinct Plan 2009. In essence, these areas are restricted to the tree protection areas designated within the Melbourne Water, water courses and the relocated Taylors Rd alignment. Responsibility for these areas will be ceded to the Responsible Authorities.

## 4.7 Designs Details of Wetlands and Stormwater Treatment

Wetland design will be undertaken with Melbourne Water as they will be responsible for those areas. The key objective is to ensure the appropriate flow of water whilst improving flora and fauna habitats. (See Part 6 for further direction on this issue)

## 4.8 Requirements of the Dandenong South Native Vegetation Precinct Plan 2009

All native vegetation areas to be retained shall accord with the directions of the City of Greater Dandenong's Dandenong South Native Vegetation Precinct Plan 2009

## 4.9 Vegetation Offsets

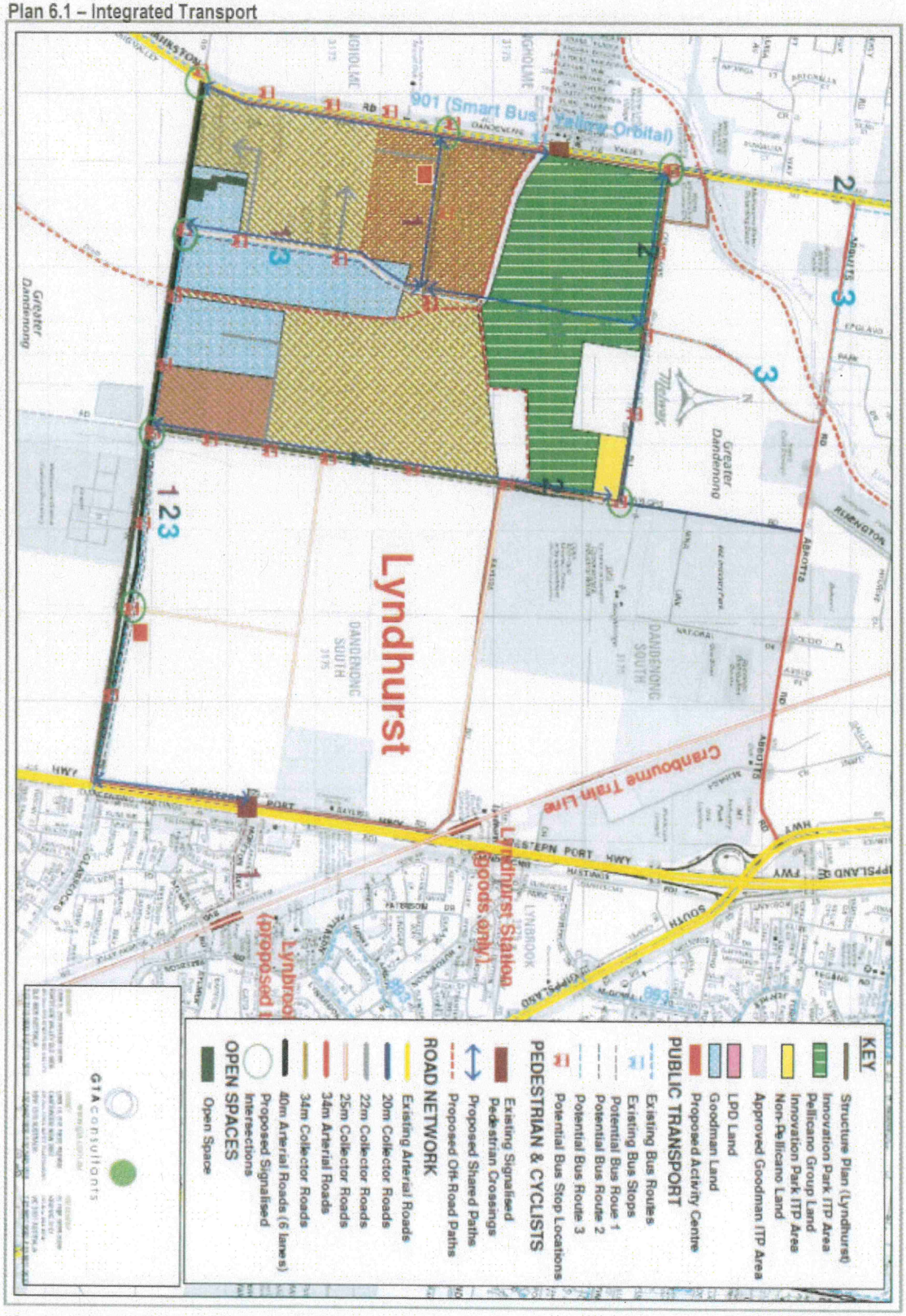
Not Applicable

## 4.10 Method of Protection of Reserve Areas to be Vested in Council

The only areas of significant vegetation to be retained in Innovation Park are located within the Melbourne Water drainage areas. Vegetation within 130 – 150 Colemans Rd must be addressed via separate negotiations between the land owners and the City of Greater Dandenong.

# 5.0 Integrated Transport Plan

**Plan 6.1 – Integrated Transport**




(Source – Integrated Transport Plan - See Appendix 4)

## 5.1 Provision of Access to the Existing Road Network

Access arrangements shall accord with the GTA Integrated Transport Plan contained in Appendix 4.

### 5.1.1 Local Council Roads

The Estate abuts two existing local roads: Colemans Rd to the north and Taylors Road to the east.

Taylors Rd is required to be widened by 6m along the entire boundary with the subject site and realigned to accommodate significant vegetation.

### 5.1.2 Arterial Roads

This Estate currently abuts one arterial road, namely Frankston - Dandenong Road. (The western end of Colemans Rd is proposed to eventually become an arterial road.)

#### 5.1.2.1 Access to Arterial Roads

Access to arterial roads is to comply with the following five key points unless otherwise agreed to by VicRoads and the Responsible Authority:

1. Connections will be limited to left in/ left out movements only in the form of either local road connections or service road connections;
2. Each lot must continue to have internal road connectivity via the signalised intersections incorporated into the structure plan to provide for safe right turning movements, especially for trucks;
3. The entry and exits of any service roads should have a minimum 100 meters clearance from signalised intersections to minimise confusion and conflict with traffic turning at the intersections, to allow for the provision of a left hand turn deceleration lane at the entry and to allow traffic exiting the service road to safely access right turn lanes where U-turns would be allowed;
4. Any local road connections should carry no more than 1000 – 2000 vehicles per day and have low level of interconnectivity to limit the attractiveness of the routes for "Rat Runs";
5. Any local road connections should have a minimum 100 metres clearance from signalised intersections and allow for the provision of a left turn deceleration lane; and
6. The design and location of any service road and local road connections should be compatible with existing road infrastructure including the Pedestrian Operated Signals, bus stop and median openings on Dandenong Frankston Road or suitable alteration must be made to this infrastructure to the satisfaction of VicRoads and the Department of Transport.

Provision is to be made on the subject site for Colemans Rd to be widened by 14m from Discovery Road through to the Colemans Road / Frankston – Dandenong Road intersection.

Any lot layouts shown in this Development Plan are indicative only and are subject to the key points above and the Integrated Transport Plan in Appendix 4.

### 5.1.3 Collector Roads

The aim of collector roads in this Estate will be to funnel traffic to and from the local road network on to the arterial road network.

#### 5.1.3.1 Dimensions of Collector Roads

Collector Roads are to be designed in the following manner:

- A 25.0m reservation with a 15.0m pavement.
- The 15.0m pavement consists of:
  - A central 4.0m turning lane;
  - A 3.5m through lane in each direction;
  - A 2.0m parking lane for cars on either side of the road; and
  - Footpaths in accordance with clause 6.2 below.

This design allows for line marking showing two lanes in each direction in the future as required upon the removal of the parking lane.

#### 5.1.4.2 Service Roads accessing Arterial Roads

In accordance with "City of Greater Dandenong Design Manual Civil Engineering Standard Drawings Plan SD 004 – Service Roads".

*Note: Reference to Plan no. also refers to any future modification or no. changes as instituted by the City of Greater Dandenong)*

## 5.2 Pedestrian and Bicycle Network and Accommodation

The aim of the pedestrian network is to allow safe and convenient pedestrian movement throughout the Estate. This is to be achieved via:

- Provision of a 2.5m wide shared Cycling/pedestrian path on one side of internal collector roads with a 1.5m wide pedestrian only path on the opposite side of the road.
- Provision of a 1.5m wide path on one side only for local roads.
- Provision of linkages between pedestrian paths and the open space network

The aim of the bicycle network is to allow safe and convenient cycling movement throughout the Estate. This is to be achieved via:

- Provision of a shared 2.5m wide pedestrian/cycling path on one side of collector roads.
- Provision of linkages between cycle paths on collector roads and local roads and the open space network.
- Linkages of the cycle paths between open space areas.

## 5.3 Integration with the Principal Public Transport Network

Over the longer term, public transport operators will be encouraged to provide an internal bus network throughout the surrounding industrial area. Following discussions with the public transport operators, provision will be made for a bus stop(s) on Discovery Rd to link with existing services if required.

# 6.0 Stormwater Management Plan

## 6.1 Construction and Maintenance Requirements for Water Bodies and Wetlands

### 6.1.1 During Construction

Water bodies and wetlands will be designed in accordance with the requirements of Melbourne Water Corporation.

### 6.1.2 Post Construction

Post construction of the water bodies and wetlands, those areas will be vested in Melbourne Water Corporation and thus the maintenance of those areas will become their responsibility.

## 6.2 Details of Stormwater Management Measures

Development must seek to reduce water consumption, increase water recycling, minimise waste and protect the environment through utilising current best practice in the area of Water Sensitive Urban Design (WSUD). In particular, development will adopt the key principles mentioned in the "Urban Stormwater - Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999) which are to:

***Protect natural systems*** *- protect and enhance natural water systems within urban developments. Promoting and protecting natural waterways as assets allows them to function more effectively and supports the ecosystems that rely on them.*

***Integrate stormwater treatment into the landscape*** *- use stormwater in the landscape by incorporating multiple use corridors that maximise the visual and recreational amenity of developments. The natural stormwater drainage system can be utilised for its aesthetic qualities within parklands and walking paths, making use of natural topography such as creek lines and ponding areas.*

***Protect water quality*** *- improve the quality of water draining from urban developments into receiving environment. Through filtration and retention, water draining from urban developments can be treated to remove pollutants close to their source. This approach reduces the effect that polluted water can have upon the environment and protects the natural waterways.*

***Reduce runoff and peak flows*** *- reduce peak flows from urban development by local detention measures and minimising impervious areas. Local detention and retention enables effective land use for flood mitigation by utilising numerous storage points in contrast to the current practice of utilisation of large retarding basins. This approach subsequently reduces the infrastructure required downstream to effectively drain urban developments during rainfall events.*

***Add value while minimising development costs*** *- minimise the drainage infrastructure cost of the development. The reduction of downstream drainage infrastructure due to reduced peak flows and runoff minimises the development costs for drainage, whilst enhancing natural features such as rivers and lakes that add value to the properties of the area.*

## 6.3 How Development will Comply with Best Practice Environmental Management of Urban Stormwater

All development will demonstrate to Melbourne Water Corporation and/ or the City of Greater Dandenong, how current best practice WSUD has been utilised in order to address the key principles adopted in Section 6.2. During the development phase of Innovation Park, the developers will set out to demonstrate, where practical, high degrees of innovation and commitment to contemporary principles with respect to the treatment of urban stormwater.

# Appendix 1 – Development Plan


pellicano GROUP
CONSTRUCTION | DEVELOPMENT | MANAGEMENT

# INNOVATION PARK: DEVELOPMENT PLAN

REF: INNOVATION PARK - STAGING PLAN

DANDENONG SOUTH

28 May 2010 1:5,000 @ A3

# Appendix 2 – DPO Schedule 6

# DEVELOPMENT PLAN OVERLAY SCHEDULE 6

A development plan must cover an area of not less than 30 hectares.

A development plan must be generally in accordance with the structure plan diagrams contained in the Dandenong South Industrial Area Extension Structure Plan, January 2009 and otherwise have regard to that incorporated document.

The comments of the Department of Sustainability and Environment and Melbourne Water must be taken into account when the responsible authority considers a development plan.

A development plan must include requirements for landscaping or other measures on industrial land to achieve effective screening of industrial development from existing residential and rural residential properties.

A development plan should ensure that industrial uses satisfy threshold distances from existing community uses and either existing or proposed residential uses.

A development plan for the Lyndhurst site must provide for appropriate design solutions and landscaping to achieve a visually attractive interface to the Western Port Highway.

A development plan must include the following plans and reports all prepared to the satisfaction of the responsible authority:

A Layout Plan

A Layout Plan showing as appropriate:

- Significant features on the land and adjoining land.
- Existing easements.
- Pedestrian network.
- A bicycle network.
- The road network, including access points to the existing road network, consistent with the access principles in the Dandenong South Industrial Area Extension Structure Plan, January 2009.
- The public transport network.
- Native vegetation to be retained.
- Areas necessary to ensure the health of the native vegetation to be retained (native vegetation protection zones).
- Areas set aside for drainage in which native vegetation may be established.
- The proposed public open space network in accordance with the Dandenong South Industrial Area Extension Structure Plan, January 2009 and the Dandenong South Industrial Area Extension Development Contributions Plan, January 2009.
- Urban design outcomes having regard to the urban design and landscaping guidelines contained in the Dandenong South Industrial Area Extension Structure Plan, January 2009.
- Landscape concept plan, including measures to protect and enhance natural features including existing significant vegetation and remnant trees which are to be retained in accordance with the Dandenong South Native Vegetation Precinct Plan, January 2009 (incorporated document).
- The potential for site works (fill and excavation).
- How the development within the plan area can integrate with the adjoining industrial land.
- The proposed interface with residential areas and community uses.
- The potential to develop an inland port in the Lyndhurst area.

Staging Plan

A staging plan showing as appropriate:

- Details of proposed staging and timing.
- How access is proposed during all stages of development.

Heritage Assessment Report

A Heritage and Archaeological Assessment Report which details the findings of a site specific archaeological investigation for each site within the development plan area.

The archaeological investigation must be undertaken by a person or firm with appropriate experience and qualifications in the field. The report should include recommendations for the management of any sites discovered during the undertaking of the investigation and/or during the development process.

The responsible authority may agree to waive this requirement.

Environmental Management Plan

A framework for an Environmental Management Plan (EMP) showing as appropriate:

- The environmental issues affecting the land.
- Goals and objectives of the EMP.
- Measures to be taken to ensure that appropriate landscaping is carried out in identified areas of environmental significance.
- Erosion and siltation control during construction.
- Designation of areas (if any) where human access to open space areas will not be allowed, including descriptions of the systems to be established and the means of precluding human access.
- An overview of the design details proposed for wetlands and open water bodies, including different edge treatments, vegetation associations, habitat areas, perching areas and underwater habitat.
- A Stormwater Management Plan that ensures appropriate hydrological regimes for retained vegetation based on expert ecological assessment.
- Incorporation of stormwater management measures, including stormwater storage and water quality improvement devices such as wetlands and open water bodies to the satisfaction of Melbourne Water.
- The requirements of the Dandenong South Native Vegetation Precinct Plan, January 2009 including the protection and enhancement of areas of public open space, native vegetation to be retained and native vegetation protection zones to be established.
- Where offsets are required, the method of protecting those offsets through measures such as conservation covenants, section 173 agreements, or gifts to the Crown (where such gifts are accepted).
- Method of protection of the reserve areas to be vested in Council until such time as the reserve areas are developed.
- Any other matters as required by the responsible authority and the Department of Sustainability and Environment.

Integrated Transport Plan

An Integrated Transport Plan generally in accordance with the Dandenong South Industrial Area Extension Structure Plan, January 2009. The Integrated Transport Plan should take into account all transport modes and include an indicative public transport, road, bicycle and pedestrian network showing, as appropriate:

- Provision of access to the existing road network.
- Provision of adequate pedestrian and cycle ways and accommodation for potential public transport routes and public transport infrastructure.
- Integration with the Principal Public Transport Network.
- Any other matters as required by the responsible authority, Roads Corporation and the Department of Transport.

Stormwater Management Plan

A Stormwater Management Plan showing as appropriate:

- Construction and maintenance requirements for water bodies and wetlands.
- Details of stormwater management measures.
- How development will comply with best practice environmental management or urban stormwater.
- Any other matters as required by the responsible authority and Melbourne Water.

The Stormwater Management Plan must also be to the satisfaction of Melbourne Water.

Structure Plan to DPO Sch.6

# Appendix 3 – General Features Plan – JCA 2009


NOTE: CUT AND FILL DEPTHS AND DRAINAGE ALIGNMENTS ARE BASED ON PRELIMINARY ALLOTMENT LEVELS AND WILL CHANGE WHEN DESIGN LEVELS FOR ROADS AND ALLOTMENTS ARE FINALISED.

CAD FILE: FILLING PLAN 3 A4.DWG

DATE: 27 JULY 2009

LEVEL DATUM: AHD

DESIGNED: G.DOWNES

# GENERAL ISSUES PLAN
# INNOVATION PARK INDUSTRIAL ESTATE
# COLEMANS ROAD DANDENONG SOUTH

SHEET SIZE: A4
VERSION 00
REF. No. 12693
Sheet No 1 OF 1

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# Appendix 4 – Integrated Transport Plan – GTA 2009


# Innovation Park

## Integrated Transport Plan

Dandenong South

Pellicano Group

GTAconsultants

# Innovation Park

# Dandenong South, Pellicano Group

# Integrated Transport Plan

Client: Devcon Group Pty Ltd

Reference: HM17530

GTA Consultants Office: Melbourne

Quality Record

| Issue | Date | Description | Prepared By | Checked By | Approved By |
|---|---|---|---|---|---|
| B | 15/06/10 | Revised Final | Nathan Moresi | Christian Griffith | C Griffith |



GTAconsultants

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# Table of Contents

# 1. Introduction

## 1.1 Background

The Urban Growth Boundary (UGB) prepared in 2004 addressed the undersupply of industrial land in south eastern Melbourne and identified the Dandenong South industrial area as a major employment area. Since then a Structure Plan has been prepared and a Panel Hearing held to deal with the infrastructure requirements for future industrial and commercial activities in the Keysborough Site, the Lyndhurst Site and the Thompsons Road Retarding Basin.

GTA Consultants was commissioned by Devcon Group Pty Ltd, acting on behalf of the Pellicano Group, to produce an Integrated Transport Plan (ITP) for the land parcel known as Innovation Park Industrial Estate (the Site) within the Lyndhurst Site, as a requirement of the Development Plan.

At the direction of Council, the ITP for the Site covers an area greater than the Pellicano Group land holdings such that it links to the surrounding transport network in such a way as to provide for other affected land owners in a flexible manner.

This Innovation Park ITP is consistent in all respects with an ITP previously prepared by GTA Consultants and approved as part of the Goodman Development Plan (Approved Goodman ITP), but adds further detail where relevant for the Site. The Innovation Park ITP is to be consistent with the Lyndhurst Structure Plan as shown in Figure 1.1.

## 1.2 Scope and Objectives

The Innovation Park ITP covers the Site and deals with all road network users and modes of transport. Its aim is to assist in achieving the objectives of Melbourne 2030 in terms of sustainable transport design by reducing car dependency and encouraging public transport use, cycling and walking where possible. The Innovation Park ITP has been prepared to be consistent with the Department of Transport's Advisory Note for Integrated Transport Plans.

It is required to provide the following outcomes:

- review of access to the site for all transport modes
- access to the existing and future road network
- adequate pedestrian and cycle access throughout the site
- pedestrian and cycle strategy within the site
- potential public transport access to the site
- integration with existing and future public transport services and infrastructure.

## 1.3 Reference Documents

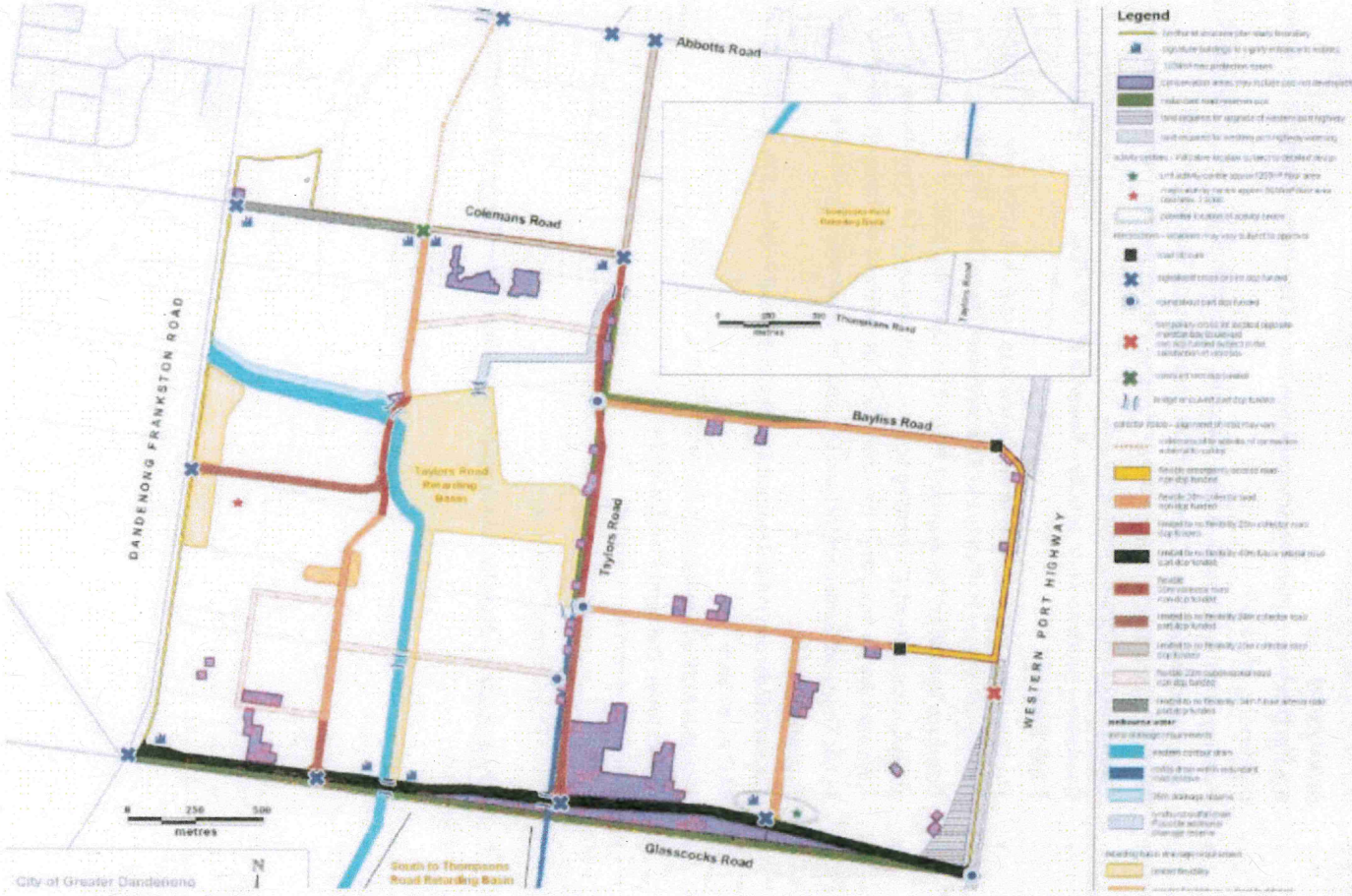
The Innovation Park ITP references a number of background documents, including the following:

- Lyndhurst Site South-West Corner, Dandenong South Integrated Transport Plan, GTA Consultants, 12 May 2009 (Approved Goodman ITP)
- Dandenong South Industrial Area Extension – Structure Plan, SGS, January 2009
- Dandenong South Industrial Area Extension – Development Contributions Plan, SGS, January 2009
- Greater Dandenong Planning Scheme Amendment C87 – Panel Report, City of Greater Dandenong, July 2008
- Planning Scheme Amendment C87 – Dandenong South Industrial Area Extension Structure Plan, Panel Recommendation – Council Officer Responses, 22 September 2008
- C87 Dandenong South Industrial Area Extension – Structure Plan Traffic Assessment, Cardno Grogan Richards, February 2008
- Dandenong South Amendment C87 – Evidence of John Piper Traffic Pty Ltd, February 2008 (Piper Evidence)
- Structure Plans for extensions to the Dandenong South Industrial Area – Traffic Analysis and Road Costing, John Piper Traffic Pty Ltd, February 2007 (Piper Traffic Report)
- Colemans Road West Development Plan, Urbis, December 2007
- 75-90 Colemans Road, Dandenong South – Traffic Report, GTA Consultants, June 2007
- Advisory Note for Integrated Transport Plans, Department of Transport, September 2008
- Public Transport Guidelines for Land Use and Development, Department of Transport, September 2008
- Greater Dandenong Public Transport Strategy, Needs and Priorities, City of Greater Dandenong, 2004
- Melbourne 2030
- VicRoads Access Management Polices, VicRoads, May 2006
- The Victorian Transport Plan, December 2008
- other documents as nominated.

## 1.4 Planning Context

Council's strategic direction for land use planning is illustrated in the Lyndhurst Structure Plan as shown in Figure 1.1.

Figure 1.1: Figure title, GTA Heading Figure style




*Source: Dandenong South Industrial Area Extension – Lyndhurst Structure Plan, January 2009

The Development Contribution Plan is informed by the Structure Plan for the Lyndhurst and Keysborough Sites and lists road infrastructure items that the City of Greater Dandenong, as well as other agencies, will be expected to provide to service the Dandenong South Industrial Area extension.

The Panel Report addressed issues raised during the course of the Hearing and made recommendations regarding the traffic and transport network for the area.

## 1.5 Consultation

A meeting was held on 14th October 2008 between Council, the Department of Transport, VicRoads and GTA Consultants as input to the preparation of the Approved Goodman ITP. The meeting discussed the issues of relevance and agency requirements for the ITP with the key outcomes reproduced as follows. The outcomes from this meeting are relevant to the Innovation Park ITP area.

- Council is aware of the existing public transport service shortage in Dandenong South area and the need for east-west bus services.
- Council advised that an integrated transport plan was being prepared for the municipalities of Dandenong, Kingston and Casey.
- Department of Transport (DoT) indicated that there are no immediate plans to introduce new bus routes in the area and will continue to monitor the development of the Lyndhurst Site.
- DoT will also advise on bus stop infrastructure during concept design phase prior to any road construction occurring.
- VicRoads provided information on a number of specific projects in the area which will impact directly on the Lyndhurst Site:
    - Western Port Highway to be converted to freeway status
    - a roundabout at the Glasscocks Road / Western Port Highway Intersection has been constructed as an interim treatment with later conversion to a grade separated intersection
    - Thompson Road interchange upgrade works to continue during the next 5-10 years before Glasscocks Road is converted to a four lane arterial road.
- VicRoads raised the potential for an interim bus route to service the area during its development.

# 2. The Area and Surrounds

## 2.1 Land Use

The properties covered by the Innovation Park ITP are located within the Lyndhurst Site which is approximately five kilometres to the south of the Central Dandenong Activity Centre and 24 kilometres from the central activities district of Melbourne.

The Lyndhurst Site is 678 hectares in area and bounded by the Dandenong – Cranbourne railway line and Western Port Highway to the east, Glasscocks Road to the south, Dandenong-Frankston Road to the west and includes properties to the north of Colemans Road/Bayliss Road as shown in Figure 2.1.

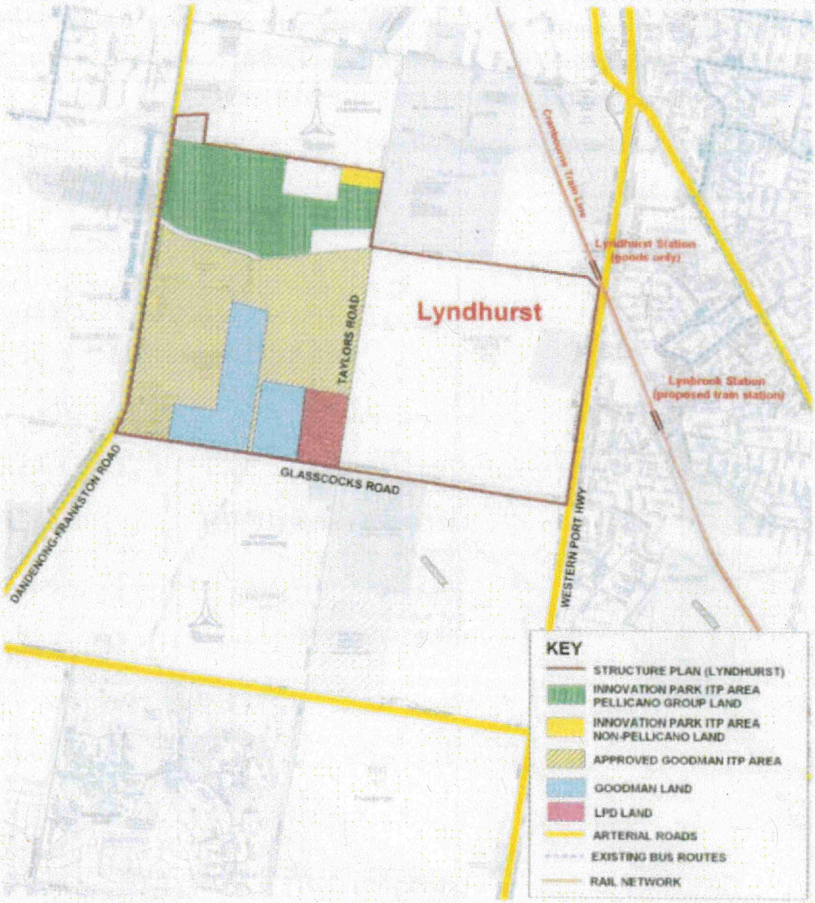
Figure 2.1: Lyndhurst Site and Existing Transport Network

## 2.2 Innovation Park ITP Area

The Innovation Park ITP Area covers approximately 94 hectares in the north-west corner of the Lyndhurst Site. It is bounded by Dandenong-Frankston Road to the west, Taylors Road to the east, the Eastern Contour Drain to the south and in the most part Colemans Road to the north.

The Pellicano Group land incorporates a number of separate titles and covers an area of approximately 74 hectares, with frontages of approximately 500 metres to Dandenong Frankston Road, 760 metres to Colemans Road and 290 metres to Taylors Road. Figure 2.2 illustrates the location of the Innovation Park ITP Area and the Pellicano Group Land in relation to the Lyndhurst Site and the Approved Goodman ITP.

Figure 2.2: Innovation Park ITP Area




## 2.3 Population

The population of Greater Dandenong is estimated at 131,000[1] people with little change over the past 15 years. It has a growing proportion of ageing people which is forecast to lead to a doubling of the number of older residents by the year 2030.

[1] Australian Bureau of Statistics - 2006 Census Journey to Work Data

## 2.4 Employment

In 2006, 48,000 Greater Dandenong[1] residents aged 15 years or more were in paid work. In the five years to 2006, the number of people working within the Greater Dandenong rose by 7,000 from 67,000 to 74,000. Among the major industries are manufacturing, accounting for 32% of local employment, as well as the retail and wholesale sectors, each employing 10%.

## 2.5 Journey to Work (JTW) Patterns

Only 7% (Melbourne average is 14.5%) [1] of residents of Greater Dandenong use public transport as a means of transport. Public transport, especially in Dandenong South, is limited in comparison to other parts of Melbourne. Figure 2.3 illustrates the results of the ABS JTW[1] data in the surrounding suburbs, which are likely to form the basis of significant proportion of the work force travelling to and from the Innovation Park ITP Area, whilst Table 2.1 provides existing and target mode shares for the same.

Figure 2.3: Journey to work pattern in the surrounding suburbs

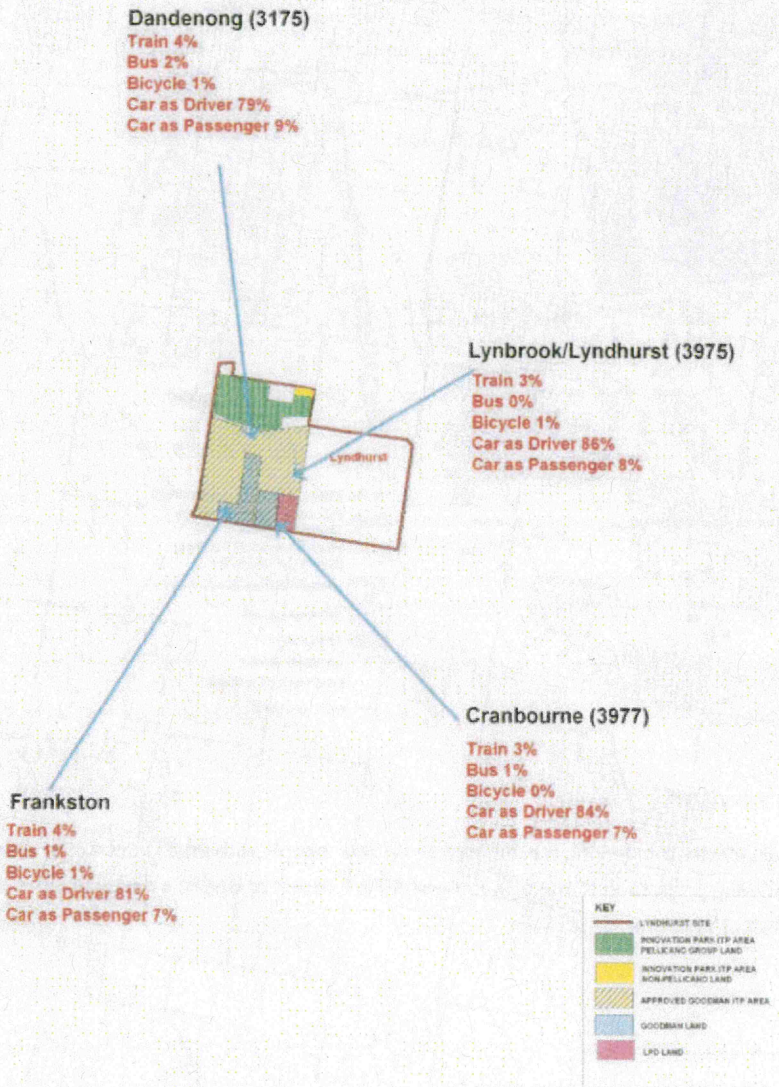


Table 2.1: Mode Share for Surrounding Suburbs and Innovation Park ITP Area Target

| Mode | JTW Mode Share by Area (%) | | | | Average of 4 suburbs | Innovation Park ITP Area Target |
|---|---|---|---|---|---|---|
| | Dandenong | Lynbrook /Lyndhurst | Cranbourne | Frankston | | |
| Car as Driver | 79 | 86 | 84 | 81 | 83 | 79 |
| Car as Passenger | 9 | 8 | 7 | 7 | 8 | 10 |
| Train | 4 | 3 | 3 | 4 | 3 | 4 |
| Bus | 2 | 0 | 1 | 1 | 1 | 2 |
| Walk | 3 | 0 | 2 | 4 | 2 | 2 |
| Bicycle | 1 | 1 | 0 | 1 | 1 | 1 |
| Other [1] | 2 | 2 | 3 | 2 | 2 | 2 |
| **Total** | **100** | **100** | **100** | **100** | **100** | **100** |

[1] Includes truck, motorbike and taxi

The targeted mode share recognises the nature and location of the area and its associated travel behaviour outcomes.

# 3. Transport Issues

Through a review of existing conditions a suite of transport themes has been developed within which specific actions can be grouped. The four transport themes are:

- walking
- cycling
- public transport
- road network access.

The Innovation Park ITP is structured to focus on each of these transport themes. Within each theme this report discusses the specific context and issues that affect the Innovation Park ITP area before highlighting actions and targets. A summary list of all the actions and targets is provided in Section 4.

## 3.1 Walking

Walking is to be encouraged as an alternative to private vehicle travel through improving connectivity and increasing walk trips to and from public transport interchanges and commercial centres.

Currently, there are no pedestrian links between the Innovation Park ITP Area and neighbouring areas and the only pedestrian facilities in the vicinity of the Lyndhurst Site are as follows:

- signalised mid-block pedestrian crossing located south from the Frankston - Dandenong Road / Willow Road Intersection
- signalised pedestrian crossing at the Western Port Highway / Moreton Bay Boulevard Intersection.

The issue of pedestrian provision was partially addressed in the reports to the Panel Hearing, which showed typical cross sections for all types of roads within the Lyndhurst Site (refer to Piper Traffic Report, Section 5 pp 25-26). The proposed cross sections include pedestrian footpaths on both sides of the carriageway. In addition, all signalised intersections will incorporate pedestrian crossings.

The Structure Plan sets out two proposed activity centres within the Lyndhurst Site (refer to Figure 4.1):

- one that provides a range of retail, commercial and other services relevant to industrial development in the area (Frankston - Dandenong Highway south of Jayco Road)
- one that provides a daily convenience function for the area of higher worker density (Glasscocks Road).

In addition, open spaces are provided which require pedestrian access so they can be used by workers at lunchtimes and similar. The Structure Plan defined the open spaces and these are reflected in the Innovation Park ITP Area layout.

The Structure Plan and Panel Report support new pedestrian links along all new roads and through open spaces connecting new developments with proposed activity centres and public transport services.

The following recommendations are made in relation to pedestrian accessibility:

- Provide signalised pedestrian crossings at the Frankston Dandenong Road / Colemans Road Intersection and the Colemans Road / LR5a Intersection.
- Provide pedestrian footpaths on both sides of Colemans Road (to allow for a safe pedestrian linkage to/from public transport stops).
- Provide pedestrian footpaths on one side of the roads within the Site except for roads with potential bus routes which will be provided with paths on both sides.

- Provide visible, safe, attractive and functional pedestrian linkage to/from the public transport stops and the proposed open spaces and bicycle paths.
- Provide a shared off-road path along the Eastern Contour Drain.
- Develop a signage and way-finding strategy to maximise the use of the public transport system.

## 3.2 Cycling

Cycling is a low cost and sustainable form of transport and is generally suitable for short trips (one to 10 kilometres). It is therefore a suitable alternative to private cars and can help to reduce congestion. It is important that the proposed road network and individual developments within the Lyndhurst Site makes provision for bicycle use. Although bicycle usage in industrial areas is typically lower than in other urban areas, replacing short car trips with walk and cycle trips should not be underestimated in terms of resulting accessibility benefits.

At present, the Greater City of Dandenong has approximately 54km of off and on-road bicycle paths with shared paths along the Dandenong Creek and Eastlink providing good north-south connections. However, similarly to pedestrian facilities, the Lyndhurst Site is characterised by a shortage of bicycle paths. Currently, only short sections of Western Port Highway has designated on road marked bicycle lanes. The nearest off road bicycle route are the Dandenong Creek Bicycle Trail and a number of paths in Lynbrook within the City of Casey.

The main concern about cycling is cyclist safety, particularly on busy roads and at intersections. The Structure Plan identifies the opportunities to promote non-motorised access to the Lyndhurst Site by incorporating footpaths and bicycle paths into the Development Plan approval process.

Cycling is well suited to the Site for a variety of work-related journeys due to the area's relatively flat topography. Walking and cycling will also be essential in connecting individual sites within the Site with future public transport services (e.g. Lynbrook Railway Station- refer to Figure 4.1).

The Structure Plan provides a well connected network of collector roads which provide direct access in all directions. Within the Site, it provides opportunities for shared footpaths on one side of the carriageway and off road recreational trails along the eastern contour drain and open space network (refer to Figure 4.1).

If required, the network of collector roads within the Site can be used by cyclists to link with designated bicycle paths and other facilities. These roads will play an important role in the connectivity of the overall network. The important road design aspects to best provide for cycling include: managed vehicle speeds, adequate sight distances, adequate street lighting, an even surface and lack of any squeeze points.

A bicycle network will also require secure parking and storage facilities at train stations, activity centres and work places. It is anticipated that the new Lynbrook Train Station will become the focus for bicycle activity to and from the Site. Whilst it is proposed to provide bicycle facilities at the station, it is important that those facilities are located in well-lit and safe environments.

The overall approach to encourage cycling within the Site is also relevant to all land holders with a particular focus to be paid to end-of-trip facilities to be incorporated into developments. Each industrial development should be planned to promote cyclist access with features including:

- Connect to shared footpaths along the collector road network where they exist and off road paths along the open space network.
- Connect to public transport services with path networks on individual sites.
- Provide safe end-of trip facilities (bike lockers, changing rooms, showers).
- Provide material to advise cyclists how to access the site by bike.

## 3.3 Public Transport

The Structure Plan identifies opportunities to promote public transport and non-motorised vehicle access by incorporating bus interchange facilities and ensuring the road network accommodates new bus services in the future. New and expanded bus routes should endeavour to provide local access for potential employees between the Lyndhurst Site, surrounding suburbs and the proposed new Lynbrook Train Station.

### Existing Services

The City of Dandenong has an established network of public transport routes but noticeable lack of services in Dandenong South. The Lyndhurst Site is currently serviced by only one bus route running north-south along Dandenong Frankston Road. The 901 bus route was introduced in March 2008 as part of the Smart Bus program to provide a cross-town connection from Frankston to Ringwood via Dandenong. The 901 bus route and Cranbourne train line form part of the Principal Public Transport Network that connects the Principal, Major and Specialised Activity Centres for the metropolitan area. Table 3.1 summarises the existing public transport services, their routes and major destinations that can be reached using these services (Figure 2.1 shows the existing public transport services within the area).

Table 3.1: Existing Public Transport Services

| Service | Line or Route Number | Route Description | Frequency (mins) Peak/Off Peak | Service Span First/Last Service | |
|---|---|---|---|---|---|
| | | | | Weekday | Weekend |
| Train | Cranbourne | City – Cranbourne | 30/30 | 4:33am/1:02am | 4:58am/1:02am |
| Bus | 901 (SmartBus) | Frankston – Ringwood | 15/15 | 4:55am/10:00pm | 6:45am/9:15pm |
| | 857 | Dandenong – Chelsea | 15/60 | 5:05am/6:20pm | 7:37am/12:30pm |

The Site lies to the east of the existing Smart Bus service along Frankston-Dandenong Road that provide connections to the Dandenong CAD approximately 8km to the north and to the Frankston CAD approximately 12km to the south.

The ability of the existing services to attract passengers relies upon:

- geographic coverage
- timelines (service span, frequency and reliability)
- safety
- ease of use
- awareness of the service in the first place.

Public transport service coverage is usually considered adequate for those areas within 800m (10 minutes walk) of a train station and 400m (5 minutes walk) of a bus route. On this basis, only the western part of the Site would be within a reasonable walk distance to the existing SmartBus service.

### Opportunities

An opportunity exists to establish new bus routes, or modify an existing route, to link to the new railway station, the SmartBus service, the activity centre to the south of the Site within the Jayco Site, and surrounding residential catchments along with key destinations further afield such as Frankston and Dandenong. These services would benefit employees and residents in the neighbouring suburbs.

### Recommendations

It is recommended that all development sites within the Innovation Park ITP Area be provided with a bus stop within a comfortable walking distance (up to 400m) to maximise the use of the service. Bus stops should be located approximately every 300m along routes and reflect the location of key attractors and the configuration of the road network. This requirement would be fully met by services operating along the main road frontages of Dandenong-Frankston Road, Colemans Road and Taylors Road plus a new route through the Site along road LR5 as set out in the Approved Goodman ITP. This new route would operate along LR5 connecting Glasscocks Road in the south to Abbotts Road in the north and beyond.

### Potential Bus Routes and Interchange

Three potential bus routes have been identified to assist Government in the planning of the Site as shown in Figure 4.1 and agreed in the Approved Goodman ITP. Route 1 provides a direct east-west link potentially between the proposed activity centre on Jayco Drive and the new Lynbrook Train Station utilising Glasscocks Road, the north-south collector road (LR5) and Jayco Drive. Routes 2 and 3 provide potential additional north-south service coverage and utilise Colemans Road, Taylors Road and the LR5 Road. These routes pass along or through the Site.

It is understood that DoT is planning for the proposed activity centre located south of Jayco Road to incorporate a bus interchange. Road LR5 within the Site should be constructed with the below ground infrastructure in place to accommodate future bus stops, shelters and associated works. Connecting paths and road crossings should be provided during the initial development along with supporting infrastructure such as lighting to suit the night time use of the services.

The bus stop locations are recommended to be near intersections to maximise walking accessibility and allow a safe road crossing opportunity. In addition, bus stops should also be provided between intersections where distances exceed 300m and where two bus routes intersect. This likely to mean a bus stop at the Colemans Road-LR5 Road Intersection, a bus stop at the mid-block road between Colemans Road the eastern contour drain and a third bus stop at or near the southern boundary of the Site where east-west roads intersect with LR5.

It is also recommended that provision be made for signal priority at signalised intersections through treatments such as exclusive bus turning phases or individual green phase for buses. It is understood that some upgrades are already being implemented to the 901 Smart Bus route at the Frankston-Dandenong Road/Jayco Drive to provide better access for southbound buses, and a dedicated bus lane with a 'queue jump' for northbound buses.

LR5 within the Site is identified to accommodate future bus services and as such will be constructed to accommodate those services in terms of road width, intersection design treatments and pavement construction (Refer to Piper Traffic Report, Section 5 pp 25-26 for road reserve widths).

## 3.4 Road Network Access

The rationale for the road network within the Site is described in the Structure Plan. It aims to provide suitable access arrangements off the surrounding arterial road network to land parcels within the Site. The road network was agreed as part of the Structure Plan and Panel Hearing, noting that the Structure Plan indicates that the road locations may vary. Taylors Road will become the major north-south road supplemented by an additional north-south collector road (LR5) which will run through the middle of the Site. The actual alignment of this road is influenced by the design of a retarding basin (Refer to Figure 4.1 for road hierarchy and locations).

In addition to the arterial road access detailed in the Structure Plan, the following access arrangements to Dandenong-Frankston Road are proposed:

- a new east-west road connection along the northern edge of the Eastern Contour Drain
- a new north-south road connection mid way between Dandenong-Frankston Road and LR5
- a new road linking LR5 to LR6 along the southern boundary of the Site
- a service road will be provided along the Site frontage between Colemans Road and the Eastern Contour Drain to provide access to properties with direct abuttal to Dandenong-Frankston Road.

Note that the ultimate alignments of the roads within the Site described above are indicative only at this time, and will be confirmed at a later date during the design process.

Approval to access arrangements to arterial roads from VicRoads is subject to the requirements of Section 5.1.2.1 of the Development Plan (Access to Arterial Roads) and the development of satisfactory design plans including road safety audit considerations.

## 3.5 Demand Management

It is important that the issue of travel behaviour change be considered as part of each development included in the Site. Examples of this include initiatives such as the Travel SMART travel behaviour change program for work places. The design of each individual development site should have regard to the arrangement of non-motorised and public transport access. Examples of activities that tenants may wish to offer their staff includes:

- handing out public transport maps and timetables
- implementing a car pooling database
- assistance for staff wishing to purchase bicycles or Metcards
- establishment of shower and locker facilities for staff walking and cycling to/from work and installation of bicycle parking facilities
- development of new staff induction kits and participation in promotional activities such as the annual *Ride to Work Day*.

# 4. Integrated Transport Strategy Elements

The integrated transport strategy for the Approved Goodman ITP Area and the Site within the Lyndhurst Site provides for conventional private vehicle travel as well as other more sustainable options such as public transport and walking and cycle access.

Table 4.1 summarises issues, potential integration opportunities and constraints for a series of transport themes, while Figure 4.1 illustrates the Innovation Park ITP for the Site consistent the Approved Goodman ITP.

Figure 4.1: Integrated Transport Strategy for Approved Goodman ITP Area and Innovation Park ITP Area (the Site)

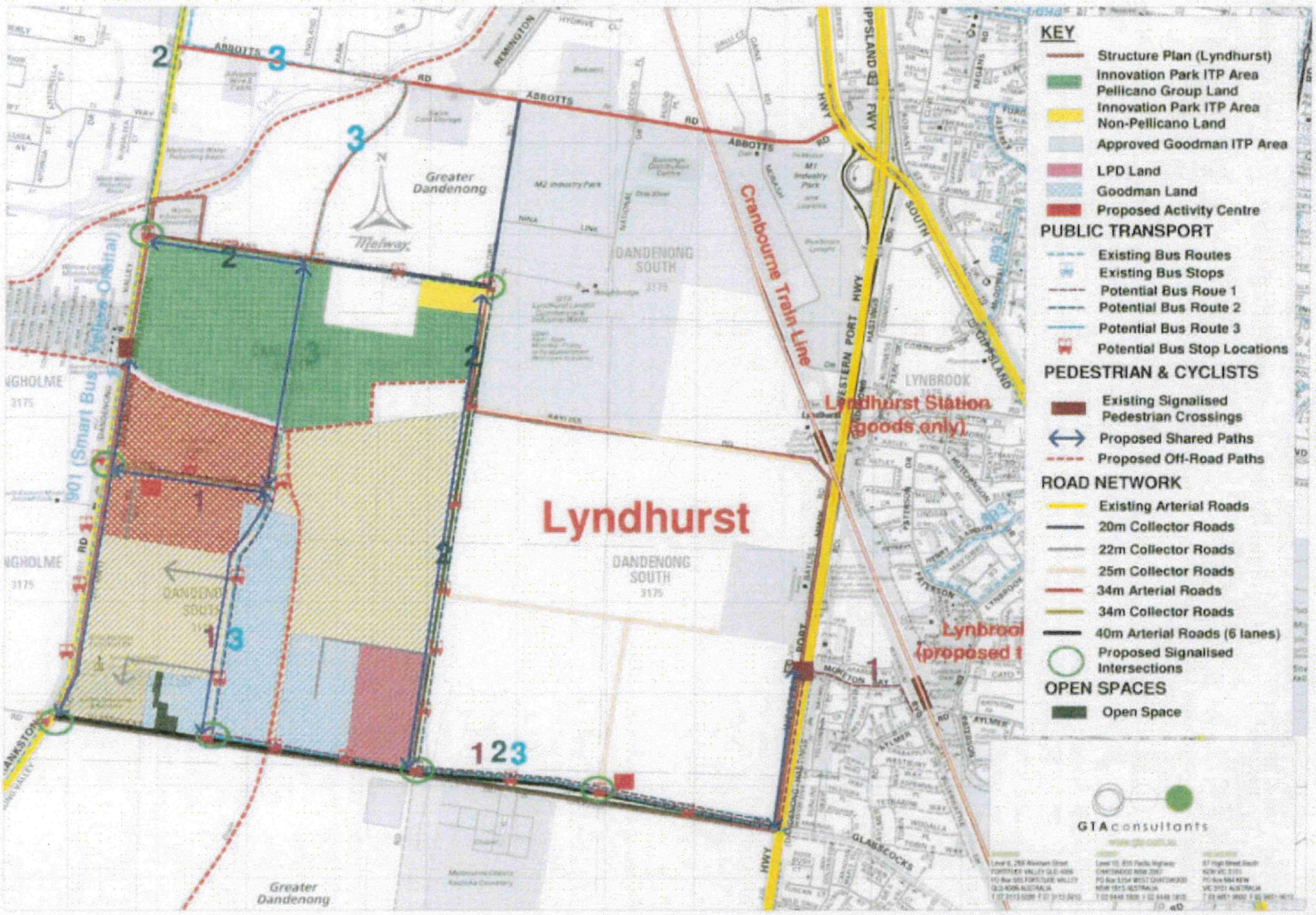


Table 4.1: Integrated Transport Strategy Elements for Approved Goodman ITP Area and the Site

| Transport Theme | Issues | Constraints | Opportunities [1] |
|---|---|---|---|
| Walking | Lack of pedestrian links between the ITP Area and neighbouring areas.<br>Lack of pedestrian footpaths.<br>Limited pedestrian crossing facilities in the vicinity of the ITP Area. | Limited range of travel in industrial area predominantly suited to very short trips.<br>Environmental factors such as weather.<br>A number of different walking environments (secluded paths, unlit areas).<br>Safety, especially after dark. | Opportunity to provide new pedestrian links along all new roads and through open spaces.<br>Opportunity to provide pedestrian footpaths on both sides of Colemans Road.<br>Connect pedestrian links with activity centres and public transport services.<br>Opportunity to provide designated crossing facilities at Dandenong Frankston Road/Colemans Road Intersection and Colemans Road/LR5a Intersection.<br>Provision of a signage and way-finding strategy by Council to link to public transport services.<br>Provision of a shared off-road path along the Eastern Contour Drain. |
| Cycling | Poor on-road cycle network.<br>Low usage in industrial areas.<br>Lack of designated paths and facilities.<br>No inter-connectivity between transport modes. | High car and truck traffic in the industrial areas.<br>High speeds on arterial roads may discourage commute cycling.<br>Environmental factors such as weather.<br>Safety, especially after dark. | Flat topography of the Lyndhurst Site.<br>Provision of a shared off-road path along the Eastern Contour Drain.<br>Provision of shared off road paths along the Eastern Contour Drain and Open Spaces (as per Figure 4.1).<br>Well connected network of collector roads providing direct access in all directions if required.<br>Opportunities for linkage to the Dandenong Creek Trail, new Eastlink Trail and existing cycle paths within the City of Casey.<br>Opportunities to provide cycle facilities at new intersections.<br>Possible linkage to the new Lynbrook Railway Station.<br>Provision of end-of trip bicycle facilities at activity centre, Lynbrook Railway Station and development sites. |
| Public Transport | Lack of public transport services, especially buses, in Dandenong South.<br>Poor geographical coverage with no east-west linkage. | Low density land use.<br>Staged development.<br>Limited surrounding high density areas.<br>Discontinuing road network whilst being developed. | Opportunity to establish new DoT bus routes, or modify an existing route, to link to the new railway station, the SmartBus service, the activity centres within the Site and surrounding residential catchments along key destinations further afield such as Frankston and Dandenong.<br>Opportunity to construct new roads within the Site with the below ground infrastructure in place to accommodate future bus stops, shelters and associated works<br>Opportunity to provide new bus stops located within a comfortable walking distance (up to 400m). Bus stops to be located approximately every 300m along routes and reflect the location of key attractors such as activity centres and the road network layout itself.<br>Opportunity for DoT bus interchange at new activity centres.<br>Provision for signal priority at new signalised intersections.<br>New railway station at Lynbrook. |
| Road Network Access | Lack of appropriate road infrastructure.<br>Lack of existing internal road network. | VicRoads plans to convert Western Port Highway to freeway standard with no abutting access.<br>Increased vehicular traffic on the existing road network. | Proposed local road network will provide suitable access arrangements off the surrounding arterial road network to land within the Site and the proposed road reserves provide for on-street cycling paths and meet the requirements of the DoT Guidelines for bus services where relevant, as well as safely and efficiently providing for freight activity and staff movement.<br>Good linkages to East Link.<br>New road projects: Greens Road duplication, Dandenong South By-pass and extension of Glasscocks Road to the east of Casey.<br>Opportunity to provide adequate on-site parking provision for trucks, staff and visitors in accordance with empirical rates. |
| Demand Management | | | Opportunity to promote Travel SMART travel behaviour change program or similar for new work places. |

[1] Funding and implementing of the various items identified in opportunities should be consistent with the Structure Plan and Development Contributions Plan in terms of those items in public area (i.e. road reserve). All other treatments on private land are the responsibility of respective land owners unless separately identified in the DCP. The items in the Public Transport section are the responsibility of the Government. Access Arrangements

## 4.1 General

The Development Contributions Plan (DCP) outlines how the staging and timing of road construction within the Lyndhurst Site is expected to occur. The Site is expected to be developed in the period 2009 to 2013 which is largely consistent with the anticipated timing of DCP funded road and intersection works affecting the Site.

In this regard the funded road and intersection elements that will provide access to the Site are identified as follows:

- intersection of Colemans Road and Dandenong-Frankston Road
- Colemans Road between Dandenong-Frankston Road and LR5
- Colemans Road between LR5 and Taylors Road
- intersection of Colemans Road and Taylors Road
- Taylors Road between Colemans Road and Bayliss Road.

It is noted that the DCP does not envisage funding any of the internal roads (including LR5) associated with the Site. The staging of the internal road system will be according to market demands.

## 4.2 Non-Pellicano Group Land

In terms of the remaining land located in the northeast corner of the Site (corner of Taylors Road and Colemans Road), no development timetable has been provided. Notwithstanding, access to each of these lots is anticipated to be directly from Colemans Road and is to be subject of separate planning applications.

# 5. Summary

This report sets out an Integrated Transport Plan (ITP) in accordance with the Structure Plan and Development Plan requirement for the Innovation Park ITP Area being the north-west corner of the Lyndhurst Site between Dandenong-Frankston Road and Taylors Road. The ITP is consistent with the Approved Goodman ITP, and adds further detail as required.

This Innovation Park ITP has been prepared using the relevant DoT Advisory Note and includes the results of consultation with DoT, Council and VicRoads. It covers the Site which includes the Pellicano Group Land (comprising a range of land parcels) and a number of other separate smaller land holdings.

The Innovation Park ITP has been designed so as to be consistent with the DoT Public Transport and Land Use Guidelines and other standards and guidelines relating to traffic and transport access and movement. It is a flexible document that allows for various development outcomes for the range of landowners within the scope of what is permitted under the Adopted Structure Plan.

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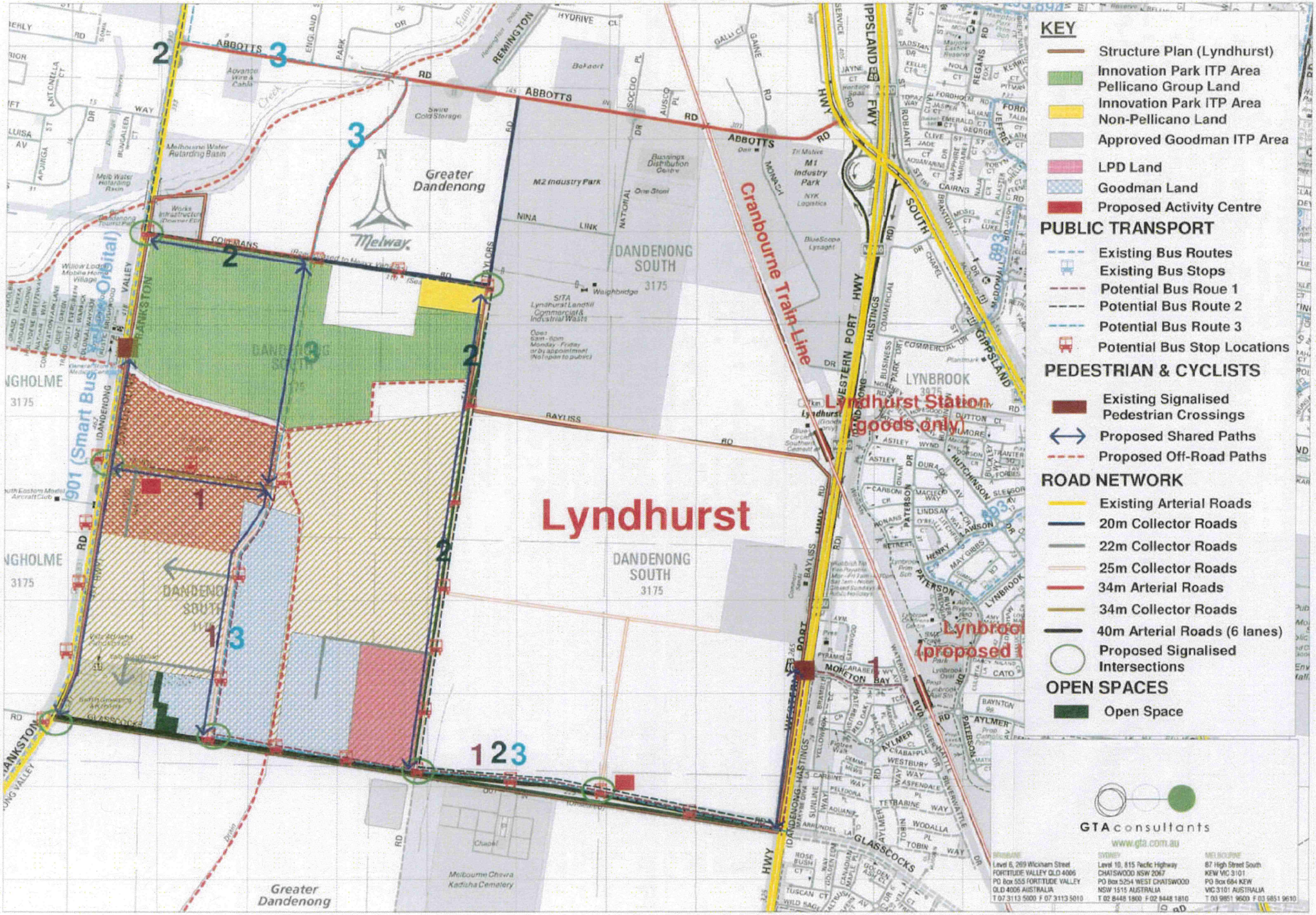
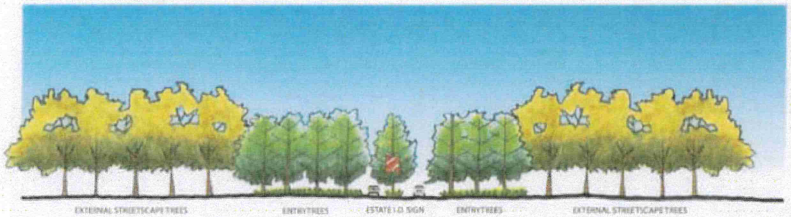

KEY
Structure Plan (Lyndhurst)
Innovation Park ITP Area Pellicano Group Land
Innovation Park ITP Area Non-Pellicano Land
Approved Goodman ITP Area
LPD Land
Goodman Land
Proposed Activity Centre
PUBLIC TRANSPORT
Existing Bus Routes
Existing Bus Stops
Potential Bus Roue 1
Potential Bus Route 2
Potential Bus Route 3
Potential Bus Stop Locations
PEDESTRIAN & CYCLISTS
Existing Signalised Pedestrian Crossings
Proposed Shared Paths
Proposed Off-Road Paths
ROAD NETWORK
Existing Arterial Roads
20m Collector Roads
22m Collector Roads
25m Collector Roads
34m Arterial Roads
34m Collector Roads
40m Arterial Roads (6 lanes)
Proposed Signalised Intersections
OPEN SPACES
Open Space
Lyndhurst
Cranbourne Train Line
Lyndhurst Station (goods only)
Greater Dandenong
DANDENONG SOUTH 3175
LYNBROOK 3975
NGHOLME 3175
GTA consultants
www.gta.com.au

# Appendix 5 – Landscape Plan by TRACT




SECTION A-AA COLEMANS ROAD

SCALE 1:500

## LEGEND

- LAWN
- PEDESTRIAN PATH NETWORK
- PATTERNED/COLOURED GRAVEL
- SIGNAGE BY THE BUCHAN GROUP
- **EXTERNAL STREETSCAPE TREES**
  Species to be selected as per Dandenong City Council recommendations.
- **ENTRY TREES**
  Formal stands of high profile thematic species to entry precinct.

E.g.

| Botanical Name | Common Name | Mature Size | Installation Size | Spacing |
|---|---|---|---|---|
| Angophora costata | Smooth-barked Apple | 14 x 12 m | 2.5 - 3.0m | As Shown |

- **INTERNAL PRIMARY STREETSCAPE TREES**
  Clusters of high profile indigenous/native tree species planted in native shrub beds within lawn.

E.g.

| Botanical Name | Common Name | Mature Size | Installation Size | Spacing |
|---|---|---|---|---|
| Corymbia Maculata | Spotted Gum | 25 x 18 m | 2.5 - 3.0m | As Shown |

- **INTERNAL SECONDARY STREETSCAPE TREES**
  Informally spaced indigenous/native tree species planted in lawn.

E.g.

| Botanical Name | Common Name | Mature Size | Installation Size | Spacing |
|---|---|---|---|---|
| Eucalyptus scoparia | Spotted Gum | 25 x 18 m | 2.5 - 3.0m | As Shown |
| Eucalyptus radiata | Narrow-leaved Peppermint | 20 x 12 m | 2.5 - 3.0m | As Shown |
| Allocasuarina verticillata | Drooping She-Oak | 10 x 8 m | 2.5 - 3.0m | As Shown |

- **BIO-SWALE ALONG WIDENED CONTOUR DRAIN**
  Clusters of strappy leafed native species along drainage swale to capture and retain water runoff.

E.g.

| Botanical Name | Common Name | Mature Size | Installation Size | Spacing |
|---|---|---|---|---|
| Lomandra longifolia | Spiny Headed Mat Rush | 1.2 x 1.0 m | tubestock | 6/m² |
| Dianella longifolia | Long-Leaved Flax-Lily | 1.2 x 1.0 m | tubestock | 6/m² |
| Ficinia/Isolepis nodosa | Knobbly Club-rush | 1.2 x 1.0 m | tubestock | 6/m² |
| Carex sp. | Sedge sp. | 1.2 x 1.0 m | tubestock | 6/m² |
| Juncus sp. | Rush Sp. | 1.2 x 1.0 m | tubestock | 6/m² |

- **BUFFER TREES**
  Clusters of indigenous / native screening species to drain widening and existing contour drain.

E.g.

| Botanical Name | Common Name | Mature Size | Installation Size | Spacing |
|---|---|---|---|---|
| Eucalyptus camaldulensis | River Red Gum | 15 x 12 m | 40L container | As Shown |
| Allocasuarina sp. | She-Oak | 10 x 6 m | 40L container | As Shown |
| Waterhousea floribunda | Weeping Lilly Pilly | 10 x 6 m | 40L container | As Shown |
| Melaleuca ericifolia | Swamp Paperbark | 3 x 3 m | 40L container | As Shown |

- **ENTRY SHRUBS**
  Colourful shrub/groundcover species to highlight entries.

E.g.

| Botanical Name | Common Name | Mature Size | Installation Size | Spacing |
|---|---|---|---|---|
| Lomandra longifolia | Spiny Headed Mat Rush | 1.2 x 1.2 m | 150mm Pot | 5/m² |
| Leucophyta brownii | Cushion Bush | 0.8 x 0.8 m | 150mm Pot | 5/m² |
| Phormium sp. | New Zealand Flax | 1.5 x 1.5 m | 150mm Pot | 5/m² |
| Doryanthes palmeri | Giant Red Sword Lily | 2.0 x 2.5 m | 150mm Pot | 5/m² |


## LANDSCAPE MASTERPLAN

INNOVATION PARK

| PROJECT NUMBER | DRAWING NUMBER | REVISION |
|---|---|---|
| 807379 | LD MP 01 | 01 |
| DATE | SCALE | DRAWN | CHECKED |
| 20-08-09 | 1:1500 | FL | MS |


landscape architects
planners & urban designers


TraGt