Cities of Boroondara and Whitehorse
and
Department of Sport and Recreation Victoria

Feasibility Study for
Eastern Rail Trail

June 1996

Prepared by

PARKLINKS

In association with
Bicycle Victoria, Transport Research Centre RMIT
Mackintosh Consulting and Aspect Landscape Consultants
Foreword

The Eastern Rail Trail is an important link in the Principal Bike Network for Melbourne.

It is one of the four radial routes (Box Hill, Frankston, Epping and Williamstown) identified by the State Bicycle Committee to link the outer suburbs with the City. The strategic importance of these radial routes is their connections to the city and to other existing and proposed routes on the Principal Bike Network and routes on the Municipal Bicycle Network created by local Councils. Local government, the Public Transport Corporation and VicRoads have supported the concept of the Eastern Rail Trail.

The State Bicycle Committee is keen to develop shared bicycle and pedestrian trails on existing rail reserves. These radial connections provide the opportunity for the creation of circuits from five to ten kilometres where much of the recreational cycling is undertaken. The circuits provide access for local communities to facilities that connect to the rivers, creeks and the bay. Recreational facilities provide the opportunity for safe cycling for children and families.

The State Bicycle Committee sees the opportunity for a mix of facilities in the eastern corridor for both on-road and off-road use. Commuter cyclists will have the opportunity to use on-road routes as well as off-road routes in this corridor. This mix of facilities which allows for commuter and recreational cycling is a responsible approach to transport planning and a healthy community.

The Eastern Rail Trail report will provide the impetus for the development and recognition of cycling in this important corridor. The provision of facilities has strong community support and the continued recognition and implementation of on-road and off-road routes will increase the number of cyclists using them. There are enormous opportunities for the use of existing rail reserves for tourism, commuter and local recreational links across Victoria. It has been seen in other areas that when the facilities are provided the number of cyclists increases.

I commend the initiative of the City of Whitehorse and the City of Boroondara in developing the Eastern Rail Trail report.

Jane Nathan
Chair
State Bicycle Committee
Comment from the Whitehorse Bicycle Committee

"The Whitehorse Bicycle Committee strongly favours the development of a trail alongside the Belgrave Lilydale Railway from the Yarra River west of Hawthorn to Heatherdale. Such a path would provide:

- a safe, convenient, relatively high-speed and largely off-road route for commuting cyclists.

- a spine connecting many existing bike routes within the Cities of Whitehorse and Boroondara.

- a useful connection for many cyclists and pedestrians for trips to school, recreation facilities, shops and railway stations.

This would create new travel options for many people, thus enhancing liveability in our part of Melbourne.

Within the two cities which would be spanned by the path, demand for transport is greatest in the east-west direction but the availability of safe, convenient cycling routes in this direction is very limited. Maroondah Highway and Canterbury Road are not attractive to most cyclists. The proposed Eastern Rail Trail would attract many more cyclists to try cycling to the city."
Executive Summary

A trail along the Ringwood Rail line has been suggested for many years and this study has been undertaken to determine the feasibility of a shared use trail.

From the preliminary assessment undertaken the trail is a feasible option and in fact could be developed immediately as a 23 Km on road route generally following the rail line. Minor works in the order of $100 000 would bring the existing route up to an acceptable standard and other works on maps and brochures would help to identify and promote the trail.

The 18 Km ultimate trail could be constructed generally along the edge of the Public Transport Corporation land and road and other reservations. The cost of this ultimate trail would be in the order of $3.9 M for a 3 m wide trail and associated bridges and underpasses. The cost reduces to under $3M if the path width is reduced. This is an achievable amount when considered over several agencies and a time frame of say ten years. The cost does not include allowance for purchase of any land.

There are several opportunities for funding of the trail including activities associated with the federation celebrations, Melbourne Parks and Waterways and VicRoads funding

A key element in the development of the Eastern Rail Trail in the future will be the agreement of the Public Transport Corporation to the works on their land and within the scope of the operational requirements for their service.

Funding from key trail and bicycle facility funding organisations such as Melbourne Parks and Waterways, State Bicycle Committee and VicRoads will also be required. Prior to this the Eastern Rail Trail will need to be identified on their strategic plans for the region.

Research into the potential users of the trail has indicated that the Eastern Rail Trail could provide a major facility for nearly 50 000 train commuters each day as well as a good proportion of the over 800 000 trips within the 3 Km corridor of the Eastern Rail Trail.
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**ROAD CROSSINGS**
Introduction

The Eastern Rail Trail is a shared use trail that has been available for the community to use for many years in a raw form. The trail was identified in the first editions of the Principal Bike Network prepared by the State Bicycle Committee. Components of the trail have been identified in the municipal bike plan for the municipalities that covered the area prior to amalgamation into the Cities of Whitehorse and Boroondara Council.

There are significant reasons for using the Eastern Rail Trail and there is a latent community need for a trail in the area for regional and local purposes and recreation and commuter purposes.

This study examines the feasibility of providing a shared footway along the railway line reserve from Heatherdale Station to the Yarra River. The study has been commissioned jointly by the Cities of Whitehorse Council and Boroondara Council, with funding from Sport and Recreation Victoria under the 1995/96 facility development Funding Program.

This report will form the basis of further action in detailing the development of the trail and in seeking further sponsorship and funding from State and Federal government agencies.

The establishment of a main east west shared footway through the Cities of Whitehorse Council and Boroondara Council is consistent with Councils corporate recreation and environmental strategies.

This study confirms the feasibility and provides an estimate of the future cost of the trail route from Heatherdale Station to the Yarra River.

The project has been managed by the Whitehorse Council Strategy and Economic Development Unit on behalf of the Cities of Whitehorse and Boroondara. Parklinks Pty Ltd in association with Aspect Landscape Consultants, Bicycle Victoria, Mackintosh Consulting and Transport Research Center at RMIT were appointed as the consultants for this study. The Consultants report to a Steering Committee comprising officers from both Cities and a bicycle user group representative from each municipality.
People in the Eastern Rail Trail Corridor

A corridor some three kilometres either side of the Eastern Rail Trail was considered in reviewing the demographic outlook for the area. This corridor virtually includes the entire Cities of Whitehorse and Boroondara and therefore is typical of these cities character.

Population Characteristics of the Corridor

Both Boroondara and Whitehorse have aging populations with the highest proportion of persons aged in the 20 - 29 and 40 - 49 age groups that generally indicates mature families with older children. The total population in the area is expected to stabilise with 150 000 in Boroondara and Whitehorse with 140 000.

The educational qualifications and income of the residents of the Eastern Rail Trail corridor are higher than the Melbourne average and reflect the demographics of the groups that potentially cycle.

Boroondara has a lower proportion of detached dwellings than the Melbourne average and a 40% higher proportion of flats and apartments. It can therefore be expected that the residents will require greater recreation opportunities such as trails.

Travel patterns in the area.

Specific research into the travel patterns of the people within the Eastern Rail Trail Corridor was undertaken by Transport Research Centre from RMIT using detailed travel survey data. This research identified that there are over 800000 people movements within the corridor each day. If only 1% used the Eastern Rail Trail it would still be Melbourne’s busiest trail.

Nearly 50 000 people from the Eastern Rail Trail corridor catch the train each day and 8000 travel by train between Stations within the corridor. With development of the trail it is reasonable to expect a proportion would use the trail at some time as all are located within an easy cycle or walking distance. The trail will also generate its own patronage based on the experience at the Yarra Trail and St Kilda Bay Trail which are both attracting close to 0.5M users each year.

Of the 800 000 trips, 32% are travelling to and from their home, 16% are to buy something which could be catered for by the 30 shopping areas within one kilometre and 9% are for education much of which would be going to the 48 schools within one kilometre of the Eastern Rail Trail. There are 200000 walking trips and 17000 bicycle trips within the corridor each day with some 370000 car trips.
Regional significance of Eastern Rail Trail

The Eastern Rail Trail is regionally significant although it has not been identified in the two key strategic frameworks for Melbourne relating to trails and bicycle routes.

Principal Bike Network

The Eastern Rail Trail was identified in the original Principal Bike Network developed in the late 1980's but has not appeared in subsequent versions. The latest Principal Bike Network plan indicates that Whitehorse Road and Canterbury Road are included.

Yarra Guide to Priorities for Melbourne's Open Space Network

The Yarra Guide to Priorities for Melbourne's Open Space Network produced by Melbourne Parks and Waterways identifies the priority areas where Melbourne Parks and Waterways Program funding will be given priority. The Melbourne Parks and Waterways Program allocates several million dollars in funding each year for the development of shared trails and other associated works.

The Eastern Rail Trail fills a significant gap in the trail network in this region as there are no east west trail links across the most populated areas of the region that include Whitehorse Council and Boroondara Council. The trail becomes the spine of the network in Whitehorse by linking many other trails in the city.

This is the challenge for the Eastern Rail Trail as the trail was not identified in the planning process yet it is able to service a major need for the region.

Metropolitan Trails Network

The Metropolitan Trails Network was first identified in the 1991 Open Space Strategy and sets out the major trail routes around Melbourne. The Eastern Rail Trail is not included on this network but because of the location and length of the Eastern Rail Trail it could easily form a significant component of this network.
The Eastern Rail Trail Experience

The Eastern Rail Trail will provide a variety of experiences to the users both now and in the ultimate stage.

The route passes through some of the most attractive and leafy suburbs of Melbourne and this will provide a recreation experience for users in an attractive setting. It is easy to imagine the trail in autumn with the leaves falling on a sunny day and family groups travelling to several popular nearby destinations such as Blacks Walk and Blackburn Lake.

The number of Commercial areas along the route and the many cafes and restaurants will make the Eastern Rail Trail an attractive gourmet trail. Particular areas that will attract trail users include the rustic charm of Maling Road and the many international restaurants at Box Hill and Station Street.

The ultimate trail will provide a glide path into the city with a smooth, continuous and safe route with a direct alignment to town as it follows the railway line. The route will provide a quick journey into the city and direct connections to numerous railway stations for dual mode travellers who do not want to cycle the whole distance.

The trail will provide a safe and secure section of school routes for students. The trail will provide an attractive alignment but will be distinctive in being highly visible from adjoining areas and the rail network and therefore will have more security than other trails. As an off road trail it will be inherently safer than the very busy nearby road system.
Proposed Eastern Rail Trail Actions

The Eastern Rail Trail although not marked as such already exists in the form of an on road route beside the rail line. The following actions identify methods of improving this route for short term use and developing the ultimate trail.

Immediate actions

Immediate actions that can be undertaken to improve the current on road route predominantly involve linemarking and installation of further signs to identify the trail.

The line marking along roads would clearly provide a bicycle facility on the road or a line which trail users could follow through circuitous sections. A distinctive coloured line based say on the Boorondara and Whitehorse Council corporate colours should be painted along the route to simplify following the trail.

Signs are required at each decision point along the route and therefore a sign would be required at virtually every intersection with further reassurance signs along longer stretches.

It is recommended that a standard metal finger board sign with railway characteristics be developed for the Eastern Rail Trail.

Pedestrian refuges, pram crossing and other works to develop the trail on a straight, smooth and continuous alignment that encourages use will be required.

The total cost for these works including maps and signage is in the order of $100 000.

Ultimate Trail construction

The ultimate trail will take several years to implement and requires the approval of the Public Transport Corporation.

The Public Transport Corporation has strict criteria for the establishment of a trail, along an operating rail service. In general no works can take place within 5 to 10 metres, fencing may be required near the rails and maintenance and liability responsibilities have to be accepted.

The total cost of ultimate works would be in the order of $3.9M for a 3 m trail.

The works would include trail construction and a distinctive coloured concrete is suggested for amenity, maintenance and identification reasons. Several sections of boardwalks, retaining walls and bridges and pedestrian lights are included in the works.
### Typical Trail Treatments

<table>
<thead>
<tr>
<th><strong>Linemarking of Route</strong></th>
<th><strong>Provide Signage</strong></th>
<th><strong>Construct Pedestrian refuge</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Painting of lines along roads to clearly identify bicycle routes. Painting of a follow line for the trail</td>
<td>Install signs along route at most intersections and long sections in between</td>
<td>Construct pedestrian refuges on roads to improve safety for people crossing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Improve Roundabout Access</strong></th>
<th><strong>Construct Trail</strong></th>
<th><strong>Install Pedestrian Lights</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct a roundabout for priority use of cyclists</td>
<td>Construct a concrete trail</td>
<td>Install pedestrian or traffic lights to improve access and safety across road crossing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Construct Underpass</strong></th>
<th><strong>All works to be 5 to 10 m from operating railways</strong></th>
<th><strong>Construct Bridge</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct an underpass for trail under existing bridges and roads</td>
<td></td>
<td>Construct a bridge over road to provide a safe crossing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Construct Trail on Boardwalk</strong></th>
<th><strong>Construct Trail on retaining Wall</strong></th>
<th><strong>Construct Trail on retaining Wall</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct a trail on boardwalk section</td>
<td>Construct a trail using a retaining wall in cut</td>
<td>Construct a trail using a retaining wall in fill</td>
</tr>
</tbody>
</table>
KEY:

---
Existing Trail Alignment

---
Ultimate Trail Alignment

□
Immediate Actions

○
Ultimate Actions

EASTERN RAIL TRAIL Alignment Plan

Section - Canterbury Station to Union Road
KEY:

- Existing Trail Alignment
- Ultimate Trail Alignment
- Immediate Actions
- Ultimate Actions

EASTERN RAIL TRAIL Alignment Plan

Section - Union Road to Elgar Road
KEY:

- Existing Trail Alignment
- Ultimate Trail Alignment
- Immediate Actions
- Ultimate Actions

EASTERN RAIL TRAIL Alignment Plan

Section - Elgar Road to Middleborough Road
KEY:

- Existing Trail Alignment
- Ultimate Trail Alignment
- Immediate Actions
- Ultimate Actions

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EASTERN RAIL TRAIL Alignment Plan

Section - Middleborough Road to Morton Park
KEY:

- Existing Trail Alignment
- Ultimate Trail Alignment
- Immediate Actions
- Ultimate Actions

Feasibility Study for Eastern Rail Trail

Install Pedestrian Lights

EASTERN RAIL TRAIL Alignment Plan

Section - Morton Park to Nunawading Station
KEY:

--- Existing Trail Alignment

--- Ultimate Trail Alignment

☐ Immediate Actions

☐ Ultimate Actions

EASTERN RAIL TRAIL Alignment Plan

Section - Nunawading Station to Mitcham Road
# Road Crossings

<table>
<thead>
<tr>
<th>Location</th>
<th>Existing Trail</th>
<th>Ultimate Trail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yarra Street</td>
<td>Pedestrian refuge</td>
<td>Pedestrian Refuge</td>
</tr>
<tr>
<td>Burwood Road Hawthorn</td>
<td>Existing crossing</td>
<td>Path under bridge</td>
</tr>
<tr>
<td>Elgin Street</td>
<td>Pedestrian refuge</td>
<td>Path under bridge</td>
</tr>
<tr>
<td>Power Street</td>
<td>Pedestrian Refuge</td>
<td>Path under bridge</td>
</tr>
<tr>
<td>Glenferrie Road</td>
<td>Use existing traffic lights</td>
<td>Move traffic lights</td>
</tr>
<tr>
<td>John Street</td>
<td>Pedestrian Refuge</td>
<td>Pedestrian Refuge</td>
</tr>
<tr>
<td>William Street</td>
<td>Pedestrian refuge</td>
<td>Pedestrian refuge</td>
</tr>
<tr>
<td>Henry Street</td>
<td>No Action required</td>
<td>No action Required</td>
</tr>
<tr>
<td>Auburn Road</td>
<td>Pedestrian Refuge</td>
<td>Traffic Signals</td>
</tr>
<tr>
<td>Albert Street</td>
<td>Pedestrian Refuge</td>
<td>Pedestrian refuge</td>
</tr>
<tr>
<td>Burwood Road Auburn</td>
<td>Pedestrian Refuge</td>
<td>Pedestrian refuge</td>
</tr>
<tr>
<td>Burke Road</td>
<td>Use existing Traffic Signals</td>
<td>Traffic Signals</td>
</tr>
<tr>
<td>Stanhope Grove</td>
<td>Pedestrian Refuge</td>
<td>Path under bridge</td>
</tr>
<tr>
<td>Myrtle Road</td>
<td>Use existing trail</td>
<td>Use existing Trail</td>
</tr>
</tbody>
</table>

Feasibility Study for Eastern Rail Trail
<table>
<thead>
<tr>
<th>Road</th>
<th>Existing Trail</th>
<th>Ultimate Trail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kendal Street</td>
<td>Use existing trail</td>
<td>Bridge over</td>
</tr>
<tr>
<td>Canterbury Road</td>
<td>Use existing lights</td>
<td>Bridge</td>
</tr>
<tr>
<td>Robinson Road</td>
<td>Signage</td>
<td>Bicycle underpass</td>
</tr>
<tr>
<td>Union Road</td>
<td>Traffic signals</td>
<td>Overpass</td>
</tr>
<tr>
<td>Mont Albert Road</td>
<td>Use existing signals</td>
<td>Traffic Signals</td>
</tr>
<tr>
<td>Elgar Road</td>
<td>Existing Traffic signals</td>
<td>Bridge</td>
</tr>
<tr>
<td>Station Street</td>
<td>Use existing underpass</td>
<td>Use existing underpass</td>
</tr>
<tr>
<td>Middleborough Road</td>
<td>Use existing traffic Signals</td>
<td>Bridge</td>
</tr>
<tr>
<td>Laburnum Street</td>
<td>Pedestrian refuge</td>
<td>Bridge Over</td>
</tr>
<tr>
<td>Blackburn Road</td>
<td>Modify existing traffic signals</td>
<td>Modify traffic signals</td>
</tr>
<tr>
<td>Springvale Road</td>
<td>Use existing traffic signals</td>
<td>Overpass</td>
</tr>
<tr>
<td>Rooks Road</td>
<td>Traffic signals</td>
<td>Traffic signals</td>
</tr>
<tr>
<td>Mitcham Road</td>
<td>Traffic signals</td>
<td>Traffic signals</td>
</tr>
<tr>
<td>Cochrane Street</td>
<td>Roundabout improvement</td>
<td>Bridge over</td>
</tr>
<tr>
<td>Heatherdale Road</td>
<td>Traffic signals</td>
<td>Traffic signals</td>
</tr>
</tbody>
</table>
Previous Studies

Components of the Eastern Rail Trail have been identified in the bicycle strategies for the five former municipalities that now comprise the Cities of Whitehorse and Boroondara.

Nunawading Bicycle Strategy

The Nunawading Bicycle Strategy by City of Nunawading in 1991 identified the Eastern Rail Trail as a major link in the Metropolitan network and also included components within Nunawading that could serve as trail links within the City. The Plan also identified accident locations along Maroondah Highway and Canterbury Road as well as routes to schools which could be serviced by the Eastern Rail Trail.

Box Hill Bicycle Strategy

The Box Hill Bicycle Strategy by Loder and Bayly in 1988 identified components of the Eastern Rail Trail within Box Hill and also recommended the use of the Mall and loading bay at Box Hill central for bicycle access. The Plan also identified accident locations along Maroondah Highway and Canterbury Road as well as routes to schools which could be serviced by the Eastern Rail Trail.

Camberwell Bicycle Strategy

The Camberwell Bicycle Strategy “Making Camberwell a Place for Cyclists” by GHD in 1992 identified components of the trail and works to improve the access along the trail. The Plan also identified accident locations along Maroondah Highway and Canterbury Road as well as routes to schools.

Hawthorn Bicycle Strategy

The Hawthorn Bicycle Strategy by GHD in 1992 identified components of the Eastern Rail Trail mainly as off road sections adjacent to the rail line. The Plan also identified accident locations along Maroondah Highway and Canterbury Road as well as routes to schools.

Kew Bicycle Strategy

The Plan identified accident locations along Barkers Road on the boundary of the Eastern Rail Trail corridor.
Action Program

The initial works could be undertaken immediately by undertaking inexpensive linemarking, signage and minor road and trail improvements. The major cost of this stage will be for the development of appropriate maps and a program aimed at promoting awareness and use of the trail.

The following table shows an indicative program for implementation of works for the ultimate trail over a ten year program. In reality each section would not be undertaken over a single year but the many components of the section would be individually implemented as funds permit.

The proposed program establishes a priority order for works with the focus being on sections which are currently the most dangerous or circuitous.

The most critical section is between Elgar Road and Middleborough Road which contains two of the most dangerous crossings in Middleborough Road and Elgar Road and a major diversion around Box Hill cemetery. The existing alignment avoids these two road crossings near the rail line because of the danger. The focus on this reach will also provide the trail into the Box Hill shopping area, stations and schools which are likely to be major attractors.

Indicative Action Program Table

<table>
<thead>
<tr>
<th>Years River to John Street</th>
<th>Cost for Initial Development 1996/1997</th>
<th>Cost for ultimate development</th>
<th>Years for Ultimate Works</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 10,000</td>
<td>$ 700,000</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>John Street to Burke Road</td>
<td>$ 5,000</td>
<td>$ 290,000</td>
<td></td>
</tr>
<tr>
<td>Burke Road to Canterbury Station</td>
<td>$ 6,000</td>
<td>$ 500,000</td>
<td></td>
</tr>
<tr>
<td>Canterbury Station to Union Road</td>
<td>$ 3,000</td>
<td>$ 310,000</td>
<td></td>
</tr>
<tr>
<td>Union Road to Elgar Road</td>
<td>$ 4,000</td>
<td>$ 160,000</td>
<td></td>
</tr>
<tr>
<td>Elgar Road to Middleborough Road</td>
<td>$ 6,000</td>
<td>$ 530,000</td>
<td></td>
</tr>
<tr>
<td>Middleborough Road to Morton Park</td>
<td>$ 4,000</td>
<td>$ 215,000</td>
<td></td>
</tr>
<tr>
<td>Morton Park to Nunawading Station</td>
<td>$ 3,000</td>
<td>$ 250,000</td>
<td></td>
</tr>
<tr>
<td>Nunawading Station to Mitcham Road</td>
<td>$ 5,000</td>
<td>$ 225,000</td>
<td></td>
</tr>
<tr>
<td>Mitcham Road to Heatherdale Road</td>
<td>$ 9,000</td>
<td>$ 380,000</td>
<td></td>
</tr>
<tr>
<td>Contingency 10%</td>
<td>$ 9,500</td>
<td>$ 368,000</td>
<td></td>
</tr>
<tr>
<td>Maps and promotion</td>
<td>$ 36,200</td>
<td>$ 3,948,000</td>
<td></td>
</tr>
</tbody>
</table>

Total for trail works $ 100,000  $ 3,948,000
<table>
<thead>
<tr>
<th>Section</th>
<th>Existing Location</th>
<th>Ultimate Location</th>
<th>Length along line (m)</th>
<th>Length of existing line (m)</th>
<th>Length of ultimate line (m)</th>
<th>Cost for initial development (1886/1897)</th>
<th>Cost for ultimate development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yarren River to Jakes Road</td>
<td>Rail bridge extensions</td>
<td>Rail bridge extensions</td>
<td>80</td>
<td>1800</td>
<td>80</td>
<td>$3,000</td>
<td>$300,000</td>
</tr>
<tr>
<td>West Earl Yarren River to Jakes Yarren River</td>
<td>East Earl Yarren River to East Earl Yarren River</td>
<td>Edge of P.T.C. land</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>$57</td>
<td>$47,250</td>
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<tr>
<td>Earl Yarren River to Tooma Street</td>
<td>Tooma Street to Donohue Street</td>
<td>Edge of P.T.C. land</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>$750</td>
<td>$22,500</td>
</tr>
<tr>
<td>Donohue Street to Burwood Road</td>
<td>Donohue Street to Burwood Road</td>
<td>Edge of P.T.C. land</td>
<td>180</td>
<td>300</td>
<td>180</td>
<td>$750</td>
<td>$22,500</td>
</tr>
<tr>
<td>Burwood Road to Light Street</td>
<td>Light Street to Luna Park</td>
<td>Edge of P.T.C. land</td>
<td>130</td>
<td>130</td>
<td>130</td>
<td>$770</td>
<td>$23,100</td>
</tr>
<tr>
<td>Light Street</td>
<td>Light Street</td>
<td>Edge of P.T.C. land</td>
<td>130</td>
<td>130</td>
<td>130</td>
<td>$770</td>
<td>$23,100</td>
</tr>
<tr>
<td>Luna Park</td>
<td>Luna Park</td>
<td>Edge of P.T.C. land</td>
<td>130</td>
<td>130</td>
<td>130</td>
<td>$770</td>
<td>$23,100</td>
</tr>
<tr>
<td>Power Street to Grace Street</td>
<td>Power Street to Grace Street</td>
<td>Edge of P.T.C. land</td>
<td>660</td>
<td>800</td>
<td>660</td>
<td>$2,250</td>
<td>$65,500</td>
</tr>
<tr>
<td>Grace Street to Garfield Road</td>
<td>Grace Street</td>
<td>East of P.T.C.</td>
<td>550</td>
<td>550</td>
<td>550</td>
<td>$700</td>
<td>$21,000</td>
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Total works: $1,050,000

Total with Contingencies of 10%: $1,155,000

Feasibility Study for Eastern Rail Trail.
Maintenance Requirements

There are four major agencies with maintenance responsibilities along the Eastern Rail Trail. Currently VicRoads and the Councils have maintenance responsibility for the roadways along the trail route. The Public Transport Corporation has responsibility along the rail reserve. There are several other bodies with minor responsibilities such commercial and government land owners.

Maintenance responsibility will need to be determined at the commencement of the development of the trail. The initial work in identifying the existing trail will not incur a significant new expense for maintenance as the works themselves are relatively inexpensive and in reality are just a new use of existing facilities. A 10% allowance for replacement and maintenance of the trail would cost $10 000 per year spread over several maintenance agencies.

Maintenance of the ultimate trail will only be minimal if the trail is constructed in a low maintenance material such as reinforced concrete and with low maintenance landscaping.

The maintenance of the ultimate concrete trail will require regular edge clearing, weeding and improvement of the landscaping works and maintenance of the lights and bridges. Signage will need to be regularly replaced and maintained and linemarking will need to be regularly refreshed.

Landscape Elements

The trail will need to develop its own landscape style and characteristics but the following criteria have already been identified.

- The trail should stand out and a distinct colour line initially and ultimately a colour concrete trail is recommended.
- Planting will be required along the trail and because of limited space in many areas the style will require vertical growth rather than a horizontal growth.
- Fencing of a distinct and attractive style which also meets the PTC safety and maintenance requirements must be developed. Distinct signage and park furniture such as seating must be developed to give a continuous characteristic style.
Users of the Eastern Rail Trail

There are numerous people who already use short sections of the Eastern Rail Trail but the potential use is significant and a major increase in patronage is possible with only minor works identifying the rail trail.

**Commuting**

While some cyclists already use routes along the general alignment of the proposed Eastern Rail Trail, it has only recently been recognised as a potentially significant commuter route. The closer it can be positioned to the railway the better it can serve this purpose. Testing of the existing alignment by Whitehorse Bicycle Users Committee members has identified that the trail provides a lower stress route with less challenging hills and was just as quick if not quicker than other routes.

**Schools**

There are 48 schools and educational institutions operating within one kilometre of the Eastern Rail Trail. These schools include major centres such as Swinburne University as well as numerous private schools in the area.

Swinburne University and Boroondara Council have a major problem with parking for students and the State Bicycle Committee and Bicycle Victoria have already initiated a Ride to Campus campaign at the University to help promote cycling. The Eastern Rail Trail is already identified as a major route used by University students.

The Eastern Rail Trail has the potential to service the needs of the students and because it is a more visible trail than other off road trails will provide increased security.

The connections to individual schools will need to also be developed to provide a totally safe and secure route to school for students.

**Railway Stations**

There are 15 railway Stations located along the Eastern Rail Trail. There are currently nearly 50 000 people a day using the train service along the corridor and 8000 use the train service to access Stations within the corridor.

Car parking is a major issue and cost for the Public Transport Corporation with demand for parking spaces exceeding supply. A
small change to peoples travel patterns to cycle to Stations will reduce the demand for costly parking and there is considerable scope to promote a modal change from cars to use of the trail along with a train ride.

**Shopping areas.**

There are 30 major shopping and commercial areas within one kilometer. There are 280,000 trips (34%) within the corridor each day for buying, pick up and delivering and to eat and drink.

There are several major areas that could attract a cult following and develop a trail cappuccino culture. The Maling Road shopping area already has a reputation and Box Hill Central and surrounding area has many fine restaurants that could be the focus of a trail destination similar to Southbank on the Yarra River trail.

**Recreation facilities**

Within one kilometre of the Eastern Rail Trail there are over 60 areas of parks and open space which could easily cater for the recreation needs of the 32,000 recreation and exercise trips each day within the corridor.

Major recreation features such as Blackburn Lake, Ringwood Lake, Dandenong Valley Parks, and the Yarra River Parks could all be easily accessible through links to the Eastern Rail Trail.

**Recreation and Trail Circuits**

The Eastern Rail Trail connects or could connect to numerous other trail and linear open space systems in the area. These include the Koonung Creek Trail, Gardiners Creek Trail, Yarra River, Dandenong Creek, Bushy Creek, Melbourne Water Pipe track from Heatherdale to Syndal and the Anniversary Trail.

The extension of the Eastern Rail Trail along the rail line to Ringwood would pick up the extensive trail system along the rail line between Ringwood and Belgrave which already covers a distance of some 17 kilometres.

There are also connections to the trail possible along the Healesville Freeway Reservation between Gardiners Creek and Dandenong Creek.

Development of the Eastern Rail Trail will connect these other trails and create a return circuit that adds a further recreation value to the other trails.
Table of Trips within 3 Km of Rail

Provided by Transport Research Centre from RMIT using the VITAL data of travel surveys from residents in the area.

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<th>May</th>
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Source: Victorian Activity Travel Survey

Prepared by the Transport Research Centre 13/54

Page 40
Travel Time

The Eastern Rail Trail has the potential to considerably reduce the travel time for cyclists travelling all the way into the City or parts thereof as well as reducing the time for dual mode travellers using the Rail service.

The Eastern Rail Trail will ultimately provide a continuous glide path with overpasses and underpasses and only nine sets of traffic lights. Compared to the Whitehorse Road and Canterbury Road which have about 40 each there could be a considerable time saving without counting the easier grades, alignment and more direct route to destinations.

The following chart was developed considering a travel speed of 25 Km/hr for the best case and a worst case scenario of a 2 minute delay with acceleration and deceleration at every light encountered. The travel times could also apply to vehicles as well as bicycles.

Travel Time in Minutes

![Travel Time Chart]

- Worst Case
- Best Case
Conclusions and Recommendations

The Eastern Rail Trail is a feasible trail that will cater for both commuter and recreation cyclists and other users including pedestrians. The trail is already available for use by cyclists and with minor works in the order of $100,000 could be clearly identified and developed for further use.

There is considerable scope for development of the trail for additional use because of the large population in the railway corridor.

The region is demographically inclined to use of the trail and minor improvements and promotion of the trail could lead to a significant increase in use.

The following recommendations are made to facilitate development of the trail.

- Councils adopt the Eastern Rail Trail as a major trail in the region and ensure the future development is secured through recognition in the planning processes.

- Approaches be made to the State Bicycle Committee, Public Transport Corporation, Melbourne Parks and Waterways and VicRoads to have the trail included in strategic planning for the region and to facilitate funding.

- Boroondara Council and Whitehorse Council allocate sufficient funds in association with other agencies to enable the improvement of the existing trail. These funds to include funding for maps and promotion material.

- Maintenance agreements be prepared with responsible agencies for the various sections of the trail.

- Detailed planning and design be undertaken with the Public Transport Corporation on the sections of ultimate trail for three major diversions at Box Hill Cemetery (including a bridges over Middleborough Road and Elgar Road), Thornhill Road and Central Road.

- Planning, design and approvals be prepared for sections of trail in a staged process and funding applications be made to appropriate bodies.
Acknowledgments

The assistance and advice of the following people and organisations in this study is gratefully acknowledged

Steering Committee
Roger Taylor, Program Leader Strategy, Strategy and Economic Development Unit, Whitehorse Council
Bernie Cahir Open Space Coordinator Boroondara Council
Jodie Henderson Sport and Recreation Victoria
Robin Friday Whitehorse Bicycle Committee
Mal Boyd Whitehorse Bicycle Committee
David Rowlands Whitehorse Bicycle Committee
Bill Morgan Whitehorse Bicycle Committee
Graeme Stone Boroondara Bicycle Users Group
Adrian Whitehead Boroondara Bicycle Users Group
Sharon Curran Strategy and Economic Development Whitehorse Council
Alison Egan Leisure Planning Whitehorse Council

Agencies
Stan Cox Public Transport Corporation
Gary Sheridan Public Transport Corporation
Stephen Fitch Property Department Public Transport Corporation
Ian Yard Public Transport Corporation
John Coles VicRoads
Jane Nathan State Bicycle Committee
Harry Tew State Bicycle Committee
Colin Leigh Melbourne Parks and Waterways
Jaime Jeffrey Bicycle Victoria Ride to Campus Campaign
Scott Oldfield GIS Public Transport Corporation
Nick Zorbas Director Physical Services Swinburne University
Anda Gazzard Manager Box Hill Central

Consultant Team
Bill Johnsen Parklinks Pty Ltd
Ian Mackintosh Mackintosh Consulting Traffic Engineers
Alistair Cumming Bicycle Victoria
Jennifer McInnes Bicycle Victoria
Nicola Wells Bicycle Survey Bicycle Victoria
Oz Kayak Transport Research Centre from RMIT
Darren Atkinson Aspect Landscape Consultants Pty Ltd