



Department of
Transport

Bike Boulevards-Conquering the Last Mile



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Introduction

In 2012, the draft Western Australian Bicycle Network Plan was released and the final version was adopted in 2014. One of the key priority actions was the review of local bike routes in Perth to provide improved and safer linkages to activity centers. The overall aim of the review was to develop a revised network for Perth to increase the attractiveness of cycling as a mode of choice.

In September 2014, Craig Wooldridge, Director Network Planning Moving People was invited to tour The Netherlands with a number of Influential Transport Leaders from Australia to gain a better understanding of how the Dutch developed their world leading cycling network. This tour was the brain child of the Counsel General of The Netherlands and was made possible with a partnership between The Netherlands Government and the Cycling Promotion Fund.

The tour of The Netherlands was inspiring and the low speed sharing approach for local roads was seen as an option that was highly applicable for the Perth Local Bike Routes Review. Shortly after the tour an observations and reflections report (http://www.transport.wa.gov.au/mediaFiles/active-transport/AT_CYC_P_2014_NetherlandsCyclingStudyTourReport.pdf) was written and presented to the local traffic and transport practitioners and cycling advocates in Perth via an AITPM Technical Forum. This generated a great level of discussion on what could be achieved for Perth.

Another key move forward post the tour of The Netherlands, was a partnership with the Department of Transport, VicRoads, Cycling Promotion Fund, AITPM, The Dutch Cycling Embassy and the Counsel General of The Netherlands. This partnership was driven by the idea of bringing two Dutch cycle planning experts to Australia for a national tour to explore what could be if we opened up our imagination. By the end of 2014 the tour of the experts had been signed off and two experts; Martijn J. te Lintelo (City of Nijmegen-Local Government) and Arie Vijfhuizen (Royal Haskoning DHV-Private Sector) were selected via an expressions of interest process. Martijn and Arie had extensive experience in planning and designing for bicycles, traffic engineering, road safety, traffic management and integrated spatial planning.

The national tour of the experts kicked off in Perth from 15 to 18 March. The visit consisted of three planning days and a full day Imagineering Workshop. The planning days provided the Dutch experts with an overview of the Perth context and an opportunity to experience Perth as a cyclist as well as site visits to a number of example roads. This element was critical to ensuring that Arie and Martijn built a good background on the key issues and challenges.

The workshop was an invitation-only event for 140 participants to ensure that a broad range of people involved in cycling were represented. Indicating the level of importance of the workshop, the opening included the Minister for Transport and the Dutch Consul General. The Minister's opening remarks highlighted the range of cyclists that needed to be catered for including: commuters, recreational riders and high-speed training cyclists.

The Dutch Consul General provided an overview of the Dutch cycling history and the passion that Dutch professionals have for sharing cycling knowledge. An emphasis was placed on making the most of the 40 years of learnings that the Dutch have obtained since re-embracing cycling as a true transport mode.

The opening concluded with a challenge from Craig Wooldridge to the participants to put existing policies and standards to one side and take an open eyes and ears approach to the day. In this way, we could imagine what might be possible by focusing on creating a safe and connected network, while also considering the needs of the other transport modes.

The workshop had a focus on five key areas to assist with the ongoing development of a number of key initiatives within the Western Australian Bicycle Network Plan:

- Local Roads
- Arterial Roads
- Connections to Schools
- Connection to rail stations and hospitals
- Roundabouts.

Each focus group had a range of real example roads with a full background package for each and was allocated 90 minutes to work up options for their allocated example.



The selection of the example projects was based on the need to assess a range of diverse examples, the opportunity that the projects offered for future demonstration projects and the value of influencing future projects in a similar environment.

All participants in the workshop developed a range of new ideas and were assisted by Martijn and Arie. The local roads area of focus was of key interest and a range of options to modify low volume local roads into low speed safe roads with a focus on cycling were developed.

Importantly, the evening before the workshop, a High Level Ministerial Round Table Dinner was held with the Minister for Transport, Executives from the Department of Transport/Main Roads/Public Transport Authority, Western Australian Local Government Association, RAC, Cycling Promotion Fund, Bicycling WA, WestCycle, Bicycle Transport Alliance, The Netherlands Counsel General and Martijn and Arie.

The high caliber of attendees at the dinner provided an ideal opportunity to discuss a range of cycling topics and issues in an informal approach that enhanced the cycling knowledge of all who attended. A key topic of conversation was local roads and how we create safer environments for cyclists. This conversation included funding options and one source was identified that evening. Following the level of interest at the workshop the following day, \$3m of funding for 2015/16 was found within days for the development of a Demonstration Bike Boulevards program. This outcome would never have been achieved without the Dutch visit and the High Level Dinner and demonstrated the importance of lifting the profile of cycling and gaining high level buy in. The High Level Dinner is now an annual event with different topics each year and continues to deliver great outcomes for cycling in many ways.

The Outcomes Report on the outcomes of the Imagineering Workshop and the High Level Dinner can be found at http://www.transport.wa.gov.au/mediaFiles/active-transport/AT_P_Cycling_imagineering_workshop_report.pdf .

Development of the Bike Boulevards

Selecting the Demonstration Projects

The funding for the new program was identified quickly and only three months before the funding became available. This required the fundamentals of bike boulevards to be developed, selection of relatively low risk projects, engagement for concept development, consultation with the community, concept design revisions, Local Government agreements, detailed design and construction to be completed in fifteen months. This was seen as a key risk, as projects of this nature would normally take two to three years from inception to completion of construction.

With the above in mind, the projects explored in the Imagineering Workshop were reviewed and a range of other potential projects explored. Based on the initial exploration, the following criteria was developed to assist in the selection of the projects:

- Local Authorities that were proactive for the development and implementation of cycling infrastructure;
- Local Authorities that embraced innovation;
- Roads that were already identified as local bike routes or were being considered;
- The level of connectivity that could be achieved with the project;
- The amount of local amenities that the project would connect to;
- A proven track record of the Local Authorities to develop and deliver projects in a tight timeframe; and
- The project having good potential to attract strong cycling numbers in the future years.

With the above criteria, a range of projects were shortlisted for further exploration. This was followed by a number of meetings with the individual Local Authorities to explore the issues and risks. This resulted in the project list being reduced to three bike boulevard projects as follows:

- City of Vincent-Connection from Joondanna to Mt Hawthorn, Leederville and ultimately the Perth CBD;
- City of Bayswater-Connection from the Swan River to the Perth Midland Principal Shared Path and the Morley Strategic Activity Centre; and
- City of Belmont-Connection from the Leach Highway Principal Shared Path (and broader gateway pat network) to the Great Eastern Highway and the Perth CBD.

Program Reference Group

The Western Australian Bicycle Network Plan is guided by an Implementation Reference Group (IRG) that has members from the Transport Portfolio, advocacy groups and professional organisations. This Group has provided a good opportunity for engagement and for the Bike Boulevard program, a decision was made to set up a working group with members from the IRG and the three Local Government Authorities. This approach ensured that a variety of views and ideas could be put forward to develop innovative options. In addition Dick van den Dool from GTA Consultants was engaged for the Vincent and Bayswater projects to maintain the Dutch experience. Flyt Consultancy was already engaged by the City of Belmont for an overall Integrated Transport Strategy and their brief was expanded to develop the Belmont project.

What are the Fundamentals of a Bike Boulevard

The early development of the projects set the following fundamentals criteria:

- Posted speed limit of 30km/h;
- Posted 30km/h school zones for schools on the routes or adjacent roads;
- Operational speeds to be around 30km/h;
- Safe cycling for all age groups;
- The road environment must be clearly different to other roads to highlight an attractive route for cyclists;
- Where possible, regulatory giveaway and stop control to be changed to achieve a through route for cyclists, without creating an attractive route for motorised traffic;
- Utilise safe system principles to develop a safe environment for all road users;
- Selected routes to have traffic volumes at or under 1,500 vpd;
- Connectivity to local amenities such as schools, parks, recreation facilities, town centres, shops and higher order cycling facilities;
- Routes with limited or ideally no roundabouts; and
- No or very limited road widening requirements to keep costs and impacts low.

Developing the Program Name

Early in the development of the program a range of naming options were developed to paint a picture of what we were trying to achieve. While 'Bike Boulevards' worked well with the cycling community, the much broader community may have seen this as divisive. After some brain storming with the Department of Transport, a list of options was developed for the IRG to work through and identify a preferred option. The list included:

- Active Streets
- Beauty Boulevards
- Safe Active Streets
- Liveable Local Streets
- Shared spaces, Local trips

The IRG clearly favoured the 'Safe Active Streets' name and the program materials were then written around the 'Safe and Active' themes. This approach still had a strong bike focus, but the name touched on all aspects of what we were trying to achieve. An overall information brochure was developed to explain in plain english what a Safe Active Street-Bike Boulevard involved (http://www.transport.wa.gov.au/mediaFiles/active-transport/AT_CYC_FS_BB_ProjectOverview.pdf). Further project specific information brochures then built upon this early work.

Concept Development

The early development of the projects involved route assessment options with each of the Local Authorities that focused on the fundamentals of bike boulevards to arrive at a recommended route for each project. Importantly, the route section also considered future extensions and spurs that could ultimately form a local bike boulevard network. This work resulted in the development of route and land use maps along with a summary of the route selection options and the reasons for the selection of the preferred route.

Following the route section, options were developed for each route. The road environments for the Bayswater and Vincent projects were similar with the existing road widths mainly being around 7m. The initial option put forward was for a 2m wide red asphalt cycling lanes each way with a 3m black asphalt

width left for motorised traffic in the middle. Along the route the intersections would be raised plateaus and flat topped speed humps would be placed every 100-120m. Parking would be incorporate in the wide verges. This approach is similar to some Dutch approaches and keeps the form of the street fairly simple. The 3m width is not sufficient for cars to pass side by side without moving into the cycle lane area, which would assist in keeping speeds low. This approach was adopted for the Bayswater project and concept plans were developed for the full length of the first 2.5km of the project, with the final 2km to be developed after stage one.

The Vincent project explored the Bayswater option, plus an alternative. The alternative option involved reducing the width for motorised traffic and cyclists down to 5m with the use of red asphalt as shared space. The remaining 2.3m was retaining in black asphalt for parking. The parking switched sides every 100-120m or a one lane slow point was instructed to create a low speed environment via lateral shifts.

The Belmont project road environment was in the order of 7m wide, similar to that of the other two projects. However, on street parking needed to be maintained as much as possible, as the area was mostly medium density and parking was seen by local residents as the number one transport issue. This resulted in a United States type boulevard being developed with the use of cycle logos/sharrows, one lane slow points with bike bypasses and raise plateau intersections. In addition green treatments were utilised at intersections to highlight conflict areas.

Visualising the Concepts

The Vincent and Bayswater concepts were unique and concept drawings can be difficult for non technical people to understand. To assist with presenting understandable concepts, Urban Circus was engaged to develop 90 second ride/drive through animations for the Bayswater and Vincent projects. These visualisations were critical, not only for the consultation process, but also for promotion of the program via media outlets. Since the development of the visualisations they have been used multiple times for news stories by television stations and electronic newspapers.

The website link for the visualisations is <http://www.transport.wa.gov.au/activetransport/safe-active-streets-program.asp> .

Safe Active Streets Website

With a wealth of information developed before consultation commenced, the opportunity was taken to develop a Safe Active Streets webpage within the Department of Transport website. The website contains background information that explains the concept of bike boulevards and project specific information such as; land use plans, concept plans, background information relevant to the particular project, summary of feedback received during the consultation process and updated concepts as the consultation process progressed. The site is regularly updated and will continue as an ongoing information portal. The website link is <http://www.transport.wa.gov.au/activetransport/safe-active-streets-program.asp> .

The City of Belmont also set up a detailed webpage with interaction options for the community to provide feedback. The website link is <http://connect.belmont.wa.gov.au/surrey-road-bike-boulevard> .

First Round Community Consultation

While engagement would have been the preferred option, the tight timeframe led to the decision to take a consultation approach with the community.

The lead for the Bayswater and Vincent projects was the Department of Transport with local consultation

processes being adopted. The Belmont project was led by the City of Belmont. The original plan was for consultation to start in August, but Local Government elections in early October, resulted in the consultation process being delayed to avoid complications during the election period. This crystallised the first risk of delay, but delaying the start of consultation reduced the project risks, while compressing the available time for the overall project development.

The consultation for all three projects started with a media launch in October 2015 by the Minister for Transport that immediately generated a high level of media interest. The Bayswater and Vincent projects attracted the highest level of media interest and this remained the case throughout the consultation phases.

Public meetings were held for all three projects and were well attended with the projects being presented with a follow on question and answer session. Like all public meetings the range of views varied with a mix of pro and against attendees and also mixed initial understandings of the projects. These were useful sessions to provide an overview of each project and gain some initial feedback.

The initial consultation period was scheduled to close in December, but due to the level of interest the decision was made to extend the consultation period through until the tail end of January 2016. This allowed more time for the community to consider the proposals and for the agencies to supply feedback on questions. A commitment was made to review the first round of feedback to further develop the concepts to enable a second round of consultation in February/March 2016.

The Vincent project in particular generated a substantial amount of public interest. The community in this area has a strong sense of community and proposed street changes generated a high level of interest. In this case the result was a street divided with high levels of residents being for or against the proposal. In the lead up the Christmas some residents created large outdoor Christmas tree bubs with the words "All I want for XMAS is my Bike Boulevard".

The level of interest was highest for the Bayswater and Vincent projects with the key areas of feedback from the first round of consultation being as follows:

- Reduction in on-street parking and the location of parking areas;
- Intersection treatments;
- Location of slow points and planter nibs, particularly in relation to sight lines/crests;
- Landscaping;
- Precinct wide traffic management issues, including rat running and speeding at intersecting side streets;
- The project will reduce house process;
- The project will increase house process; and
- The Bayswater residents preferred the Vincent concept design.

Working Through the First Round Consultation Feedback

The main focus of attention based on the feedback was working through the concepts to refine the location of the slow points and maximising on street parking opportunities. For the Bayswater project work had already commenced on developing a revised concept based on the Vincent design. A number of site visits were undertaken to work through the key issues and many meetings were held to work through the fine detail. This was a productive process and the concept designs were enhanced, where possible and some aspects were removed, such as turn bans due to significant concerns from residents. All of the changes were completed in a very tight timeframe to enable the second round of consultation to be undertaken in late February 2016. The Belmont project did not need to go to a second round of consultation due to a different process being utilised and agreement to move to implementation was achieved in March.

Second Round Consultation

The second round of consultation for the Vincent project took a different approach with a drop in session being arranged in a local park on the street. This worked well and allowed residents to have one on one discussions about the project design to assist in working through issues or highlighting areas that could not be resolved, such as the location of slow points.

The Bayswater project involved a large public meeting, which was an opportunity for the local community to be presented with the updated design and the key feedback received. As with any public meeting the more vocal community members against the project were the ones to take the microphone first. However, once the initial presentation and questions were completed we were able to discuss key aspects and concerns with most of the attendees in smaller groups or one on one.

Based on the feedback session, further refinements were made to the concept plans.

The City of Vincent project ran with a final process that was decided by the elected members of Council. This only allowed the street residents to vote on a yes/no basis via a mail out with the final concept and an overview of the project. This resulted in a high level of participation in the voting and 60% support for the project. Council voted in early April to support the project moving into implementation.

The City of Bayswater project allowed all residents in the catchment area (990) to participate in the voting process on a yes/no basis via a mail out with the final concept and an overview of the project. This also resulted in 60% support and the Council voted in late April to support the implementation of the project.

All of the residents for both projects were notified of the outcomes via a mail out.

Project and Financial Agreements

As with all projects that are partially or fully state funded, agreements are required to enable the projects to proceed into implementation. The bike boulevard projects differed from the standard grants that are based on 50:50 funding. However, the bike boulevards projects were to be fully funded by the State Government. The decision to fully fund the projects was made due to the short notice of the funding being available and the criticality of selecting the right projects to achieve good cycling numbers over the coming years.

The 100% funding approach did present some challenges as the standard approach with 50:50 funding is for Local Governments to carry all risks if the projects run over budget. For the Bike Boulevards, the Local Authorities were not contributing and did not have a funding source available if the projects ran over budget. As a result through discussions, it was agreed that if the projects were likely to exceed the allocated budget at the conclusion of the detailed design and costing phase, the State and Local Governments would review the scope to reduce costs or explore allocating additional funding. The final agreements enabled 40% payment on agreement to proceed with the project, 40% once the detailed design is approved and the final 20% at the completion of construction.

An additional positive from the development of the agreements for these projects was a number of improvements that can be brought back into the 50:50 agreements for other cycling projects.

Detailed Design

The initial aim was to have the first stages of three projects constructed by 30 June 2016. However, with the consultation period being extended by three months, this was no longer possible. To assist with moving the project forward, the detailed survey work for each project was undertaken while the financial agreements were being developed and finalised. This enabled the detailed design process to progress quickly. As with all projects, there were some areas of refinement from the concept to the detailed design. The main

refinements required were around drainage, but the overall intent of the concepts were maintained during detailed design. At the time of writing this appear the detailed design process was nearing completion and construction was about to start.

Construction

The construction of the projects is relatively straight forward as there are no road widenings involved. The schedule is as follows:

Vincent-Stage one to be started on 20 June 2016 and be completed by the end of September 2016. Discussions for a possible stage two to commence in 2017.

Bayswater-Stage one to be completed by October 2016, stage two by June 2017 and stage three by June 2018.

Belmont-Stage one to be completed by September 2016, stage two by February 2017 and stage three by June 2018.

Arterial Road Crossings

The Bayswater and Vincent projects both involve the crossing of two high volume 60k/h arterial roads. For the projects to be effective and safe the only option for crossing the roads safely is to install cycle/pedestrian crossing traffic signals. These aspects of the projects will require a longer development and implementation timeframes and will be implemented in year three of the programs, shortly after the first two stages of civil works have been completed.

Before and After Studies

As the program is demonstration in nature, it is critical to undertake before and after studies to determine the outcomes. Initially, the before studies were to take place in March to pick up a high month for cycling. With the consultation process delays this was delayed until May and June, which will see a drop in existing cycling numbers. However, other important items for all road users will be picked up. The before studies consist of the following:

- Tube Counts for vehicle/bike numbers and speeds
- Video surveillance at relevant locations
- Gender and age capture

The after studies will include the same as the before studies, but with the inclusion of intercept surveys. The after studies will be undertaken in March for the two year period post construction. Learnings from the before/after study results will be utilised to refine the current projects (if needed, post construction) and for the future bike boulevard projects.

Lessons Learnt

A key part of any project is to set aside time after the dust settles to undertake a lessons learnt. This is particularly important for new and innovative projects such as bike boulevards. The key lessons learnt to date are as follows:

- High level buy in and support is a must have;
- The Dutch experts visit and High Level Ministerial Dinner were a game changer;
- The original timeframes were too ambitious;

- The program has consumed two resources, without additional resourced being allocated and this has led to delays and short cuts being taken for the other cycling work, along with unsustainable hours being worked;
- The website has worked well;
- The engaged approach taken by the state and local government technical staff has worked well;

Procedures for Future Projects

Based on the lessons learnt from the first three projects, a process has been written to assist in guiding the future projects. This will be continuously updated as the program progresses to ensure that we continue to learn from each project.

Additional Funding for 2016/17 and 2017/18

Based on the significant amount of interest and success with the first year of funding and additional two years of funding has been secured. Funding of \$3m will be available in 2016/17 and 2017/18. This additional funding will enable full completion of the three initial projects, design of future projects and funding of additional projects in 2017/18. Funding beyond 2017/18 will be subject to funding discussions over the coming year and a variety of sources are being explored.

Demand is High for Bike Boulevards

The demand for bike boulevards has been strong since the program was announced. In 2016/17 a total of eight new bike boulevard projects will enter the planning and design process. All parties involved will meet every two months to exchange information on learnings along the way. After the first three hit the ground in the second half of 2016 and the launch of the 2050 Perth and Peel Cycle Network Plan in the coming months, we are expecting interest to increase further.