

TAYSIDE AND CENTRAL SCOTLAND TRANSPORT PARTNERSHIP

21 JUNE 2011

REGIONAL PARK & RIDE STRATEGY

REPORT BY PROJECTS MANAGER

This report informs the Partnership of progress made on Park & Ride Strategy projects. The report seeks approval of the outcomes of the Dundee West Park & Ride Technical and Business Case reports and seeks authority for officers to progress the findings of the study.

1 RECOMMENDATIONS

1.1 That the Partnership:-

- (i) notes progress on the four Park & Ride projects as detailed within this report;
- (ii) approves the findings of the Dundee West Park & Ride Technical and Business Case reports as outlined within this report; and
- (iii) remits officers to explore opportunities with Stakeholders for funding and implementation of a Park & Ride facility at Dundee West and report the outcome to a future Partnership meeting.

2 BACKGROUND

- 2.1 At its meeting on 28 October 2008 the Partnership approved the finalised Park & Ride Strategy and Action Plan (Report RTP/08/28 refers). This identifies priorities for both existing and new bus based Park & Ride in addition to rail based Park & Ride. This report concentrates on progress on the development of new bus based Park & Ride actions.
- 2.2 Three new bus Park & Ride Sites were identified as being high priority within the sub-strategy and work has been ongoing to progress these projects:
 - A92 South of Tay Bridge
 - A90 West of Dundee
 - A90 East of Perth
- 2.3 Stirling South was identified as a future priority for a Park & Ride site within the sub-strategy. At its meeting on 22 September 2009 (Report RTP/09/36 refers), the Partnership agreed to advance consideration of the investigation of a third Park & Ride facility serving the south of the Stirling, following the growing success of the Castleview Park & Ride facility, opened in August 2008.

- 2.4 In addition to the Regional Park & Ride Strategy and Action Plan, Transport Scotland's Strategic Transport Projects Review (STPR) includes national proposals for developing strategic Park & Ride serving a number of key cities, including Dundee and also a site at Bannockburn (Report RTP/09/11 refers). Consequently the proposals for developing Park & Ride on the radial approaches to Dundee and at Stirling South require to be developed in close consultation with Transport Scotland.

3 DISCUSSION

- 3.1 Progress in support of the Regional Park & Ride Strategy and Action Plan is outlined below.

(i) Tay South Park & Ride

- 3.2 The recommendations for A92 Tay South Park & Ride facility contained within the Cross Tay Sustainable Transport Study (CTSTS) were approved at the Partnership meeting on 23 June 2009 (Report RTP/09/24 refers). At its meeting of 15 June 2010 the Partnership approved the conclusions of a Technical Report and Outline Business Case (OBC) for the Landfall Park & Ride site at Tay South (Report RTP/10/16 refers).
- 3.3 The Technical Report and OBC strengthened the economic case for a Park & Ride facility at the Landfall site by further developing two options; one a 458 space facility and the other a 350 space facility based on the calculated demand of 315 cars/day by 2022. The 350 space option has a lower capital cost of £3.67m including optimism bias and the better Benefit Cost Ratio of 1.7.
- 3.4 The Technical Report and OBC were submitted to Transport Scotland. Subsequently Transport Scotland has confirmed that the Landfall Site is their preferred option for a Park & Ride facility south of the Tay, having previously preferred a site at Forgan Roundabout.
- 3.5 As previously reported, both Tactran and SEStran formally objected to the lack of allocation for a Park & Ride facility at the Landfall site location within the St Andrews and East Fife Local Plan. This is to be considered during the St Andrews and East Fife Local Plan examination which commenced in June 2011. Details of the examination progress can be followed on the [Fife Direct](#) website.
- 3.6 Following the outcome of the Local Plan examination, discussions will be reopened with all stakeholders, including Fife Council, Dundee City Council, SEStran, Transport Scotland, bus operators and the Tay Road Bridge Manager, regarding various aspects of taking forward the proposals.

(ii) Dundee West Park & Ride

- 3.7 At its meeting of 14 September 2010 the Partnership approved the conclusions of the Dundee West Park & Ride study and remitted officers to progress development of the proposals (RTP/10/25 refers). The study concluded that two sites have the best potential to serve the western approach to Dundee: one to the north west of Swallow Roundabout (Site 3i) and one at Riverside Drive at Wright Avenue (Site 6b).
- 3.8 In order to take forward these proposals and inform the decision regarding a preferred site, the Executive Committee on 9 November 2010, approved the commissioning of Colin Buchanan & Partners to undertake detailed design and an outline business case (RTP/10/36 refers). This work has now been completed and was guided by a Steering Group comprising Tactran, Dundee City Council and Transport Scotland as, in addition to the proposal for a Park & Ride Site at A90 Dundee West being a high priority in the Regional Park & Ride Strategy, it is also identified in STPR Project 8 (Strategic Park & Ride/Park & Choose).
- 3.9 Copies of the Technical and Business Case reports are available in the Members' area of the Tactran website (www.tactran.gov.uk).

Technical Report

- 3.10 The Technical Report provided a final scheme design and detailed cost for both sites based on a 400 space car park, including detailed consideration of car, bus, walking and cycling access; materials specification; ground conditions; topographical and environmental surveys and land acquisition costs. This included consultation with bus operators, Transport Scotland and Landmark Hotel (for Site 3i). As a result of this work the Technical Report has identified base Capital costs for each site estimated as £4.65m for Site 3i and £2.73m for Site 6b (2011 prices) including 15% contingencies and land acquisition costs. A plan of the layout of both sites is given in Appendix A.

Business Case Report

- 3.11 The Business Case report undertook an economic evaluation based on the updated Capital cost for each site, including a risk assessment and review of optimism bias, and also based on updated bus operating costs following further consultation with bus operators.

Bus Service Provision

- 3.12 Two alternative dedicated bus service options were considered for each site, one serving the city centre and one serving both the city centre and Ninewells.

- 3.13 From consultation with bus operators the number of buses required to provide a 12 minute service frequency were determined together with an estimate of the annual bus operating costs for such a service:

Table 1: Bus Numbers and Operating Costs

	Site 3i		Site 6b	
	No of Buses	Annual Operating Cost (£,000)	No of Buses	Annual Operating Cost (£,000)
City Centre Only	3	421	2	268
City Centre & Ninewells	4	549	4	499

Based on 2011 prices

- 3.14 The demand forecast for each site was taken from the initial study to estimate the bus patronage that could be expected at 2012 (theoretical year of opening) and 2022. This bus patronage was estimated as shown in Table 2.

Table 2: Bus Patronage Forecasts (persons)

	Site 3i		Site 6b	
	2012	2022	2012	2022
City Centre Only	176	266 - 293	192	289 - 319
City Centre & Ninewells	254	344 - 381	262	359 - 397

Revenue Costs

- 3.15 From the bus patronage forecast, the annual revenue income from bus fares was calculated and this provided an estimate of the annual subsidy that would be required for each bus service option. Table 3 shows the estimated subsidy required at year of opening.

Table 3 – Annual Bus Service Subsidy

	Site 3i		Site 6B	
	City Centre Only	City Centre & Ninewells	City Centre Only	City Centre & Ninewells
	(£'000)	(£'000)	(£'000)	(£'000)
Bus Operating Costs	421	549	268	499
Fare Income	103	127	112	134
Bus Subsidy	318	421	156	365

- 3.16 It can be seen that for Site 3i the annual bus service subsidy required is estimated at £421,000 for a city centre & Ninewells bus service and £318,000 for the city centre only service. For Site 6b the annual bus service subsidy is lower at £365,000 for a city centre & Ninewells bus service and significantly lower at £156,000 for the city centre only service.
- 3.17 This subsidy required would be expected to reduce as patronage increases in line with patronage forecasts and, for example by 2022, the annual bus subsidy required for Site 6b city centre only service is estimated to be £99,000.

- 3.18 In addition to operating costs for the bus service there are annual site operational costs of £38,000 and, for the purposes of economic appraisal, a maintenance cost of 5% of construction costs has been assumed.

Capital Cost and Optimism Bias

- 3.19 The business case analysis undertook a rigorous risk assessment and review of optimism bias in line with HM Treasury guidelines. This resulted in an optimism bias of 13.7% for Site 3i and 12.8% for Site 6b being added to the base Capital cost, bringing the total Capital costs to £5.18m and £3.03m for Sites 3i and 6b respectively.

Non User Benefits

- 3.20 Non user benefits are those benefits that accrue to travellers who are not actually using the proposed Park & Ride facility. This mainly occurs by the fact that as Park & Ride removes traffic from the road network, there is a reduction in congestion for those who continue to drive.
- 3.21 Both Site 3i and Site 6b remove traffic and reduce congestion on the approach to and within central Dundee, providing non user benefits. However, by providing a slip road from the A90 to Site 3i, the Park & Ride traffic is removed from the Swallow Roundabout, reducing congestion and therefore reducing the journey times of general traffic passing Swallow Roundabout, particularly in the morning peak period. This results in significantly improved non user benefits for Site 3i in comparison to Site 6b.

Economic Appraisal

- 3.22 Based on the above, the Benefit to Cost Ratio (BCR) for Site 3i varies between 1.5 for the city centre only service and 1.4 for the city centre & Ninewells service. The BCR for Site 6b varies between 1.5 and 1.1 depending upon the bus service scenario considered. It can therefore be seen that both sites have a positive BCR.
- 3.23 The economic costs and benefits for both sites can be summarised as:
- Site 3i has a higher Capital cost and bus operating cost than Site 6b, but has higher benefits mainly due to non user benefits at Swallow Roundabout during the morning peak.
 - Site 6b has a lower Capital cost and lower bus operating costs, significantly lower for the city centre only service, but has lower non user benefits as it removes traffic on approach to and within the city centre only.

Appraisal against Objectives

- 3.24 A sense check shows that both sites continue to perform well against the Planning Objectives. In addition the Business Case analysis also includes an appraisal of the sites against STPR objectives. This demonstrates that both sites have a good fit with both the specific STPR Strategic Park & Ride project objectives and the STPR national objectives in general.

- 3.25 STPR Project 8's stated contribution to the Scottish Government's purpose is to help to keep city centres moving by reducing congestion in the peak periods; assisting in maintaining the labour catchment and reducing emissions. Both Site 3i and Site 6b would contribute positively towards this purpose, with Site 6b forecast to remove slightly more traffic from central Dundee than Site 3i.

Sensitivity Test

- 3.26 A sensitivity test was undertaken using a "hybrid" bus service, rather than dedicated, which would be made up of existing scheduled buses supplemented by dedicated services. At site 3i this would mean using 2 buses to extend the existing Number 5 service from Ninewells Hospital to the Park & Ride site. At Site 6b this would mean using 1 additional bus and diverting existing passing services or those currently using the Perth Road into the Park & Ride site.
- 3.27 The sensitivity test for Site 3i resulted in a reduced BCR of 1.2 and an annual subsidy at 2012 of £147,000. This was mainly due to the fact that, although bus operating costs would be lower, the demand forecast for the Park & Ride reduces significantly because the bus journey time increases significantly by following the Number 5 route.
- 3.28 The sensitivity test for Site 6b resulted in an increased BCR of 2.0 and an annual subsidy at 2012 of £22,000. This is due to reduced bus operating cost, while retaining a direct bus service to the city centre.
- 3.29 Although both these services have been discussed with the bus operators there is no commitment to either extend or divert existing services and, as such, they are included only as a sensitivity test to demonstrate there may be other options for the bus service worth exploring.

Other Considerations

- 3.30 Both site options are calculated to have positive carbon dioxide emission savings.
- 3.31 Site 6b has the potential to serve a multi-purpose role – car parking for a proposed wildlife centre adjacent to the site; airport shuttle car parking service; potential synergy with TERS proposal for a relocated Invergowrie Rail Station, and Dundee Green Circular cycle/walking links adjacent to site.
- 3.32 Depending upon the timing of its construction, there may be an opportunity for the Park & Ride facility to be available for the opening of the V&A @ Dundee in 2014/15 and for it to be considered as a V&A car park. No allowance has been made for this or the significant potential for additional patronage within the economic appraisal.
- 3.33 Both sites indicate a better BCR and lower operating costs for the city centre only service, significantly so in the case of Site 6b, rather than a service serving both the city centre and Ninewells Hospital. However, there may be an opportunity for NHS Tayside to consider providing a minibus shuttle service to/from the site.

- 3.34 Site 3i is north west of the A90 Trunk Road and, although this provides the opportunity to remove traffic from the A90, the bus operators have expressed concern that crossing the A90 may affect journey time reliability for bus services.
- 3.35 The bus services for both sites would also interact with Dundee's existing urban bus priority system, which is being improved as part of an overall upgrade to Dundee's Urban Traffic Management & Control system in financial year 2011/12.

Conclusions

- 3.36 Both sites 3i and 6b meet the study Planning Objectives and contribute positively to the STPR objectives. Both sites also have a positive BCR, but offer different strengths and weaknesses :
- site 6b has a lower Capital cost and, in the city centre only bus service option, has a significantly lower annual bus operating cost than Site 3i;
 - both Site 3i and Site 6b will reduce congestion on approach to and within central Dundee, however only Site 3i has the potential to reduce congestion at A90 Swallow Roundabout;
 - both sites contribute positively towards the Scottish Government's STPR Project 8 purpose by helping to keep the city centre moving by reducing congestion in the peak period. Site 6b is forecast to remove slightly more traffic from central Dundee than Site 3i.
- 3.37 As both sites offer differing benefits it is proposed to further explore the findings of the Technical Report and Business Case with Stakeholder organisations with a view to reaching agreement on the funding and implementation of a Park & Ride site to the West of Dundee.

(iii) East of Perth Park & Ride

- 3.38 At its meeting of 16 March 2010 the Partnership approved the conclusions of a study into a Park & Ride facility at east of Perth (Report RTP/10/02 refers). The study concluded that a facility with access from the A85 at the Barnhill Interchange (Walnut Grove) has the potential to attract an estimated 159 vehicles/day. The report also noted that the implementation of the Park & Ride facility as an integral part of the Perth Transport Futures proposals is likely to increase its success and reduce the ongoing annual operating costs required.
- 3.39 The Partnership remitted officers to progress further investigation of the scope for implementing the project and associated bus operations including bus priority opportunities; detailed design of the car park; agreement of access arrangements with Transport Scotland; planning application and land negotiations, all in consultation with Perth & Kinross Council, Transport Scotland, and other potential partners, including bus operators.

- 3.40 The Executive Committee, on 9 November 2010 approved an allocation of £20,000 to undertake complementary work to provide a more detailed design, including access design onto the Trunk Road, in agreement with Transport Scotland (Report RTP/10/36 refers). Work on this is ongoing, with topographical surveys, speed surveys, flood risk scoping, environmental impact assessment screening and draft layouts all progressing. A further allocation to continue this work is provided within the 2011/12 RTS Revenue Programme.
- 3.41 Work is also continuing with Perth & Kinross Council officers regarding how to best integrate the East of Perth Park & Ride with Perth Transport Futures proposals. An allocation is included in the 2011/12 Tactran Capital Programme and consideration is being given to land purchase.

(iv) South of Stirling Park & Ride

- 3.42 At its meeting of 15 June 2010 the Partnership approved the conclusions of a study into a Park & Ride facility at south of Stirling (Report RTP/10/16 refers). The study concluded that either of two sites is well situated to deliver a successful Park & Ride facility. Both sites are on the A872 corridor:
- A872 West (in the vicinity of Milton Roundabout)
 - A872 East (Hillhead)
- 3.43 The Partnership remitted officers to take forward the conclusions of the study in consultation with Stirling Council, Transport Scotland and other potential partners.
- 3.44 Stirling Council officers are continuing to integrate the study conclusions within the Local Development Plan process and Masterplanning exercise to ensure a suitable Park & Ride facility to the South of Stirling is included in future plans.

4 CONSULTATIONS

- 4.1 This report has been prepared in consultation with the Transportation Officers Liaison Group and Chief Officers Liaison Group. Key stakeholders and the relevant Council officers have been consulted throughout the development of all the Park & Ride Studies.

5 RESOURCE IMPLICATIONS

- 5.1 The costs of undertaking and contributing to the various Park & Ride studies, as discussed in this report, were met from the 2010/11 RTS Revenue budget and a further allocation of £40,000 is included in the 2011/12 Revenue Programme to further progress the Park & Ride proposals arising from these studies.

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NOTE

Background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (and not containing confidential or exempt information) which were relied on to a material extent in preparing the above Report :-

Report to Partnership RTP/08/28, Regional Transport Strategy Sub-Strategies, 28 October 2008.

Report to Partnership RTP/09/11, Strategic Transport Projects Review, 3 February 2009

Report to Partnership RTP/09/24, Park & Ride Strategy, 23 June 2009

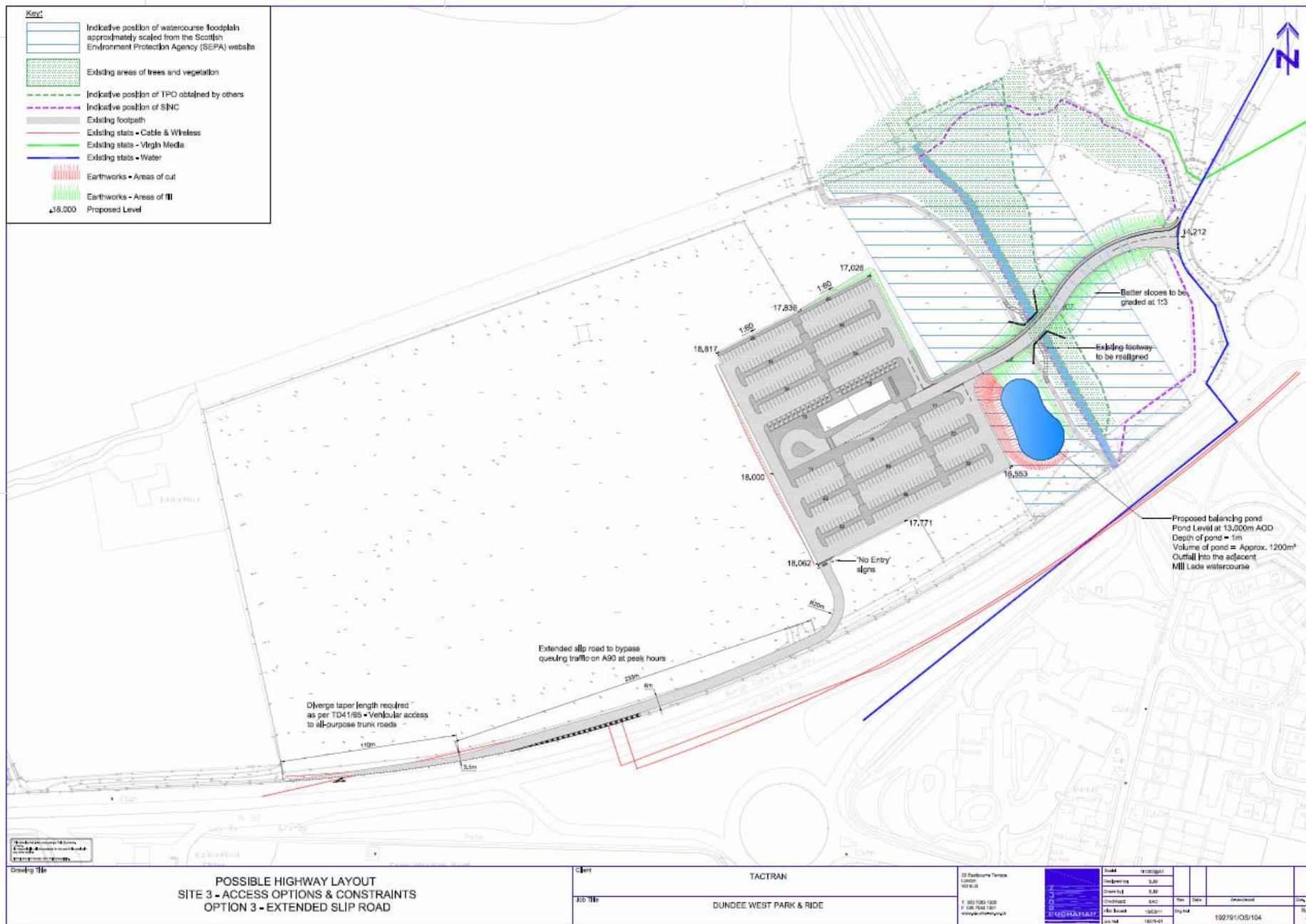
Report to Partnership RTP/09/36, Revenue Budget Monitoring 2009/10, 22 September 2009.

Report to Partnerships RTP/10/02, Park & Ride Strategy, 16 March 2010

Report to Partnership RTP/10/16, Park & Ride Strategy, 15 June 2010

Report to Partnership RTP/10/25, Park & Ride Strategy, 14 September 2010

Report to Executive Committee RTP/10/36, 2010/11 Revenue Programme, 9 November 2010.



Site 3i – North West of Swallow Roundabout



Site 6b – Riverside Drive at Wright Avenue

	<p>POSSIBLE HIGHWAY LAYOUT SITE 6B</p>	<p>TACTRAN</p>	<p>20 September 2016 10:00</p>		<p>Scale: 1:500 Drawing: 500 Checked: B. 10/16 Date: 10/16</p>	<p>DRAFT FOR COMMENTS ONLY</p>
<p>Drawn by: [Name]</p>	<p>10/16</p> <p>DUNDEE WEST PARK & RIDE</p>	<p>7 100 100 100 10/16</p>	<p>10/16</p>	<p>10/16</p>	<p>10/16</p>	<p>10/16</p>