



## **PART D(4)    Cycleways / Shared Paths**

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### **7.1 Introduction**

The Draft Maitland Bike Plan 2005, details a series of Bicycle *Trunk Routes*, which form the primary citywide bicycle routes within the overall cycleway network in the Maitland LGA. These trunk routes act as "spokes" which connect to "hub" destinations such as commercial centres, industrial areas, schools and urban railway stations.

Maitland City Council adopted its first Bike Plan in 1982 and since then has established a cycleway network with approximately 30km of on-road and 10 km of off-road cycleways at a total cost of \$823,000. Whilst the resultant cycleway network is extensive it is also heavily fragmented. Further, the existing network lacks cohesion and consistency especially in relation to signage and linemarking and does not comply with current cycleway design standards.

Council remains committed to the development of a safe and practical cycleway network for the Maitland LGA. Additional residential, rural residential and industrial developments will increase the demand for cycleways, to be constructed both within new development areas plus to provide linkages to the bicycle trunk routes and hub locations. The linkages to the trunk routes will be off-road cyclist/pedestrian shared paths in the majority of cases. Further works will also be required to upgrade the existing trunk routes to meet increased demands and current design standards.

The primary purpose of this part of the Contributions Plan is therefore to obtain funds to build the core of a comprehensive cycleway network capable of serving the entire community. Funding is also being sought to both maintain the bicycle trunk routes over their design lives and to provide for a five year review of the cycleway network and preparation of a new Bike Plan.

In general, the Draft Bike Plan is based upon the upgrading of existing footpaths, roads or other public land (such as open space) to shared facilities with bicycles. Therefore, the acquisition of land is generally not relevant to this strategy. However, there may be instances where acquisition is desirable. This may be sought as a land dedication (in full or part satisfaction of the contribution) or by acquisition.

The Draft Bike Plan prioritises the bicycle trunk routes according to safety, population and cost factors. The highest priority routes provide safe and affordable bicycle facilities to the largest parts of the community and it is therefore considered reasonable to levy citywide contributions towards the provision of such routes.

In addition to Section 94 Development contributions, Council intends to fund cycleway infrastructure from State Government grant applications. The NSW Roads and Traffic Authority is currently funding a \$251M cycleway development program called Action for Bikes 2010.

### **7.2 Nexus**

While it can be demonstrated that demand for the cycleway network is increasing with each development, the purpose of this part of the Plan is to establish an equitable means of servicing the overall needs of the population. The Plan establishes that the demand linked to new developments is to be serviced from contributions while other sources of funds are to be used to service the remaining facilities required.

The Draft Bike Plan is seen as an integral part of the city's transportation system and recognises the bicycle as an alternative to motor vehicles and buses and in some cases is the only transport option for some sections of the community. A well developed and comprehensive cycleway network can supplement the public transport system, particularly in local areas for short journeys, thus providing a cheap and efficient means of transport for the community in general.

It is recognised that the Draft Bike Plan covers a network of routes that are available to all cyclists to use, irrespective of their residence location. Whilst usage for certain segments will be generally limited to that of local residents, other segments passing through established areas will be significantly utilised by up-stream new development or by general city-wide users. For this reason differing apportionments have been established as described below.

In summary the Bike Plan proposes that:

- a) cycleways within future development areas are to be well designed, included in DCPs where appropriate and be constructed at no cost to Council;
- b) cycleways that link future development areas to the Bicycle Trunk Route Network or hub locations, and that are required solely as a result of that development, are to be well designed shared paths, included in DCPs where appropriate, and constructed at no cost to Council

In all other cases the trunk route network will function as a citywide system with costs for the network apportioned over the entire population.

### 7.3 Contribution Catchment

While certain elements of the cycleway network are located within different catchments or sectors, the cycleway system that contributions are being sought for under this Plan effectively lead to the creation of a citywide trunk route system. On this basis it is proposed that contributions be calculated on a single citywide catchment and that this applies equitably to all new development.

There are however three exceptions to this approach:

- i. An off-road shared pathway linking the Aberglasslyn development area to the trunk route network
- ii. An off-road shared pathway linking the Gillieston Heights development area to the trunk route network
- iii. An off-road shared pathway required to link the Thornton North development area to the trunk route network

Whilst each of these segments form direct linkages to the Trunk Route network, in each case, demand for the facility arises solely as a result of development in these specific localities over the life of this Plan, and accordingly specific contribution catchments will apply. The Thornton North contributions are dealt with in the Thornton North Contributions Plan, while the calculations and contributions for the Gillieston Heights and Aberglasslyn development areas are detailed below.

**Table No.5: Cycleways / Shared Paths specifically due to development**

Description	Total kms	Capital Costs (\$)
Aberglasslyn Development Area to Rutherford (off-road)	0.7	107,000
Cessnock Road, Gillieston Hgts to Maitland (off-road)	2.8	514,000

## **7.4 Facilities Strategy**

As cycleways are primarily located on public land (including roads and footpaths), it is considered appropriate that Section 94 Contributions should be sought to implement the capital cost components of the Draft Bike Plan. It is also reasonable to require a minor contribution towards the routine maintenance of the network, which is likely to be required as a result of increasing demand for use of the facilities.

Council's current schedule of Unit Rates was used to calculate estimated costs for cycleway infrastructure (capital and maintenance). The series of citywide bicycle trunk routes that apply to this Plan, proposed works and estimates costs are shown in Table 6.

**TABLE No. 6: City Wide Cycleways Capital Works Projects & Annual Maintenance Works**

	Trunk Route Capital works		On-Road Bike Lanes Annual Maintenance Costs				Off-Road Shared Paths Annual Maintenance Costs				
	Total km	Capital Cost (\$)	Width km	Width (m)	Asphalt (sq m)	Cost (\$0.5/m <sup>2</sup> )	Asphalt km	Asphalt (sq m)	Cost (\$0.5/m <sup>2</sup> )	Concrete (sq m)	Cost (\$1.0/sq m)
Thornton to Greta	13.1	290,000	8.2	1.5	24,600	12,300	4.9	6,400	3200	2,000	2,000
Raymond Terrace Road (Urban)	2.4	35,000	2.4	1.5	7,200	3,600	0.0	0	0	0	0
Maitland CBD Loop	3.4	62,000	2.6	1.2	6,240	3,120	0.8	800	400	600	600
Telarah to Rutherford Loop	5.2	88,000	4.4	1.5	13,200	6,600	0.8	0	0	1,600	1,600
Morpeth Road	4.7	67,000	4.7	1.5	14,100	7,050	0.0	0	0	0	0
Thornton*	4.7	243,000	2.0	1.4	5,600	2,800	2.7	0	0	6,000	6,000
Mount Dee Road to Aberglasslyn	3.0	170,000	1.2	1.2	2,880	1,440	1.8	0	0	3,900	3,900
Maitland to Bolwarra Heights	7.3	454,000	4.9	1.5	14,700	7,350	2.4	200	100	5,800	5,800
Rutherford to Aberglasslyn (Off-road)**	2.3	246,000	0.0	0.0	0	0	2.3	0	0	5,000	5,000
Metford to Tenambit (Off-Road)	3.7	540,000	0.0	0.0	0	0	3.7	0	0	9,300	9,300
Cessnock Road (Off-Road)***	2.8	N/A	0.0	0.0	0	0	2.8	0	0	7,000	7,000
Metford to Morpeth (On-Road)	5.0	158,000	5.0	1.5	15,000	7,500	0.0	0	0	0	0
Tocal Road	8.6	490,000	8.6	1.5	25,800	12,900	0.0	0	0	0	0
Cessnock Road (On-Road)	5.2	363,000	5.2	2.0	20,800	10,400	0.0	0	0	0	0
Raymond Terrace Road (Rural)	12.6	606,000	12.6	2.0	50,400	25,200	0.0	0	0	0	0
<i>Bike Plan 2010</i>		<i>20,000</i>									
<i>Land Acquisition#</i>		<i>130,000</i>									
<b>GRAND TOTALS</b>	<b>84.0</b>	<b>\$3,962,000</b>	<b>61.8</b>		<b>200,520</b>	<b>\$100,260</b>	<b>22.2</b>	<b>7,400</b>	<b>\$3,700</b>	<b>41,200</b>	<b>\$41,200</b>

\* Note excludes off-road shared path in Government Road from Somerset Drive to Raymond Terrace Road (estimated capital cost of \$165,000) as works solely related to development and included in Thornton North Section 94 Plan

\*\* Note: excludes off-road shared path section from Aberglasslyn Road to development area (estimated capital cost of \$107,000) as works solely related to development and subject to 100% apportionment

\*\*\* Note: excludes off-road shared path in Cessnock Road from Maitland Railway Station to Gillieston Heights Development Area (estimated capital cost of \$514,000) as works solely related to development and subject to 100% apportionment

# Land required for cycleway associated with 3<sup>rd</sup> River Crossing (2,000m<sup>2</sup> @ \$50m<sup>2</sup>)

## 7.5 Apportionment

During the life of this Plan the population is expected to increase to 77,000 from the existing population of 60,000. This represents an increase of about 17,000 people or approximately 23%. The Plan recognises the need to apportion the costs of the network over the entire population as the demand for the provision of these facilities is as a result of both the existing and future population. Accordingly, Council will be responsible for 77% of the costs of the identified works, whilst contributions will be sought for the remaining 23%. This apportionment applies to all lots on a citywide basis.

Development of the Gillieston Heights investigation area however will require the provision of part of the Trunk Route solely as a result of that development. In this circumstance 100% of the capital costs are therefore attributable to that development and will be apportioned accordingly.

Contribution to routine maintenance and resurfacing is also required on the bicycle trunk routes. This maintenance is required to preserve the wearing surface and integrity of the routes between capital works. Routine maintenance undertaken on bicycle trunk routes is a function of use. Surface repair, sign replacement and linemarking will increase from greater use brought about by new development. Annual routine maintenance is estimated at \$1.00 and \$0.50 per square metre for concrete and asphalt surfaces respectively. Apportionment is based on equity use, being 77% existing and 23% from new development.

## 7.6 Calculation of Contribution

### (i) City Wide Cycleways / Shared Paths

Based on Table 6 total capital costs for the proposed works are \$3,962,000. In addition, maintenance works associated with this network have been estimated at \$145,160 annually. Over the 10 year life of the Plan therefore total costs for the works are estimated at **\$5,413,600** ( $3,962,000 + ((41,200 + 3,700 + 100,260) \times 10)$ )

The contribution formula for cycleways is therefore:

$$\frac{C - E}{P} \times AF$$

Where:

C= Capital & Maintenance Costs of Facility

E= Existing Section 94 Funds held

P= Benefiting No of Lots

AF= Apportionment Factor

$$\frac{\$5,413,600 (C) - \text{Nil} (E)}{5,870} \times 0.23$$

= **\$212 per lot**

= **\$68 per person** (based on the assumed occupancy of 3.1 person per lot)

### (ii) Gillieston Heights Contributions Catchment – Cycleways / Shared Paths

Total costs of works are estimated at \$514,000. Based on an estimated lot yield of 915 and 100% apportionment of costs, additional contributions for this catchment are therefore:

= \$562 per lot

= \$181 per person (based on the assumed occupancy rate of 3.1 persons per lot)

**Total Contributions are therefore City Wide + Development Catchment**

**= 774 per lot**  
**= 249 per person**

**(iii) Rutherford / Aberglasslyn Contributions Catchment – Cycleways / Shared Paths**

Total costs of works are estimated at \$107,000. Based on an estimated lot yield of 1730 and 100% apportionment of costs, additional contributions for this catchment are therefore:

= \$62 per lot  
= \$20 per person (based on the assumed occupancy rate of 3.1 persons per lot)

**Total Contributions are therefore City Wide + Development Catchment**  
**= \$274 per lot**  
**= \$88 per person**