PEDESTRIAN CAPACITY

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Methodology

Assessment was undertaken for the 4 sections that make up the Golden Mile (GM):

1. Lambton Quay
2. Willis Street
3. Manners Street
4. Courtenay Place

Three criteria was assessed:

1. Pedestrian level of Comfort
2. Pedestrian delay
3. Bus stop occupancy

Methodology

Criteria 1 - Pedestrian level o
Pedestrian Comfort Guidance

1. Step 1 – Divided GM into se survey undertaken by proje
2. Step 2 – Categorise each se categorised as High Street
3. Step 3 – Identify street furr
4. Step 4 – Obtain pedestrian Active Mode Visualisation c

Figure 9 Guidance for different area types

Methodology

Criteria 2 - Pedestrian delay – quantification of pedestrian delay along and across the GM using Pretty's Method outlined in the HCM

1. Step 1 – Identify all legal crossing opportunities for pedestrians
2. Step 2 – Categorise each into signalised, unsignalised or zebra crossings
3. Step 3 – Modelled signal data was used to determine proposed signal timings for Options 1 to 3 (proposed signal timings were constant for each option)
4. Step 4 – Delay at unsignalised/zebra crossings were estimated (across=20s and along=10s)
5. Step 5 – Estimate number of pedestrians crossing at each location (scaled ped volumes were used, 50% of the along volumes were used for the ped crossing across)

Methodology

Criteria 3 - Bus stop occupancy – quantifying the impacts of bus stop occupancy on walking pedestrians

1. Step 1 – Determine arrival rate of patrons (an arrival rate survey was done at two stops on Lambton Quay and Courtenay Place, one on each side of the road)
2. Step 2 – Determined boarding rates per stop along the GM using snapper data
3. Step 3 – Assumed a max queue length on 10m to determine width of queuing patrons (personal area assumed at 1m2 pp)
4. Step 4 – Based on the above calculated available walking space per option

Note: Arrival rate at Manners Street = Courtenay place and Willis Street = Lambton quay

Evaluation outcomes

- Criteria 1 - Pedestrian level of Comfort

GM Section	Option 1	Option 2	Option 3
Lambton Quay	2	2	2
Willis Street	0	0	2
Manners Street	0	0	0
Courtenay Place	1	1	1

Criteria	Score
> 25%	3
10-25%	2
< 10%	1
0	0
< - 10%	-1
10-25%	-2
> - 25%	-3

- Scores based on percentage improvement compared to existing conditions
- Increase in footpath widths improved an already good overall Level of Comfort along the GM
- Increases in footpath width along Willis Street and Lambton Quay have the greatest impact on LoC
- Changes to Manners Street are minimal and will have a negligible impact on pedestrian LoC

Evaluation outcomes

- Criteria 2 - Pedestrian delay

GM Section	Option 1	Option 2	Option 3
Lambton Quay	1	3	3
Willis Street	2	2	2
Manners Street	2	2	2
Courtenay Place	1	2	2

Criteria	Score
> 100%	3
51-100%	2
< 50%	1
0	0
< - 50%	-1
51-100%	-2
> - 100%	-3

- Scores based on percentage improvement compared to existing conditions
- Option 2 and 3 along Lambton Quay have more side roads converted to pedestrian areas removing delay along the GM
- Side road closures and signal time reduction along Willis Street and Manners Street will result in a reduction in pedestrian delays
- Option 3 scored slightly better than Option 2 along Courtenay Place, due to Tory Street becoming a ped area – however the improvement did not warrant a different score

Evaluation outcomes

- Criteria 3 - Bus stop occupancy

GM Section	Option 1	Option 2	Option 3
Lambton Quay	1	1	1
Willis Street	0	0	2
Manners Street	0	0	0
Courtenay Place	2	2	2

Criteria	Score
> 50%	3
25-50%	2
<25%	1
0	0
<-25%	-1
25-50%	-2
> -50%	-3

- Scores based on percentage improvement compared to existing conditions
- The increase in footpath width along Lambton Quay and Courtenay Place will increase available area for passing pedestrians
- Option 3 provides for an increase in footpath width along Willis Street increasing available waiting space at bus stops
- Changes to Manners Street are minimal and will have a negligible impact on pedestrian LoC

Evaluation outcomes

Overall

- All options deliver improvements to pedestrian conditions along the Golden Mile
- Option 2 and 3 perform better than option 1
- On average Option 3 performs marginally better than Option 2

	Criteria	Option 1	Option 2	Option 3
Lambton Quay	1	2	2	2
	2	1	3	3
	3	1	1	1
	OVERALL	**1**	**2**	**2**
Willis Street	1	0	0	2
	2	2	2	2
	3	0	0	2
	OVERALL	**1**	**1**	**2**
Manners Street	1	0	0	0
	2	2	2	2
	3	0	0	0
	OVERALL	**1**	**1**	**1**
Courtenay Place	1	1	1	1
	2	1	2	2
	3	2	2	2
	OVERALL	**1**	**2**	**2**

Comments

Loading bays & taxi bay retention

- Will cause a slight decrease in Level of Comfort scores along Lambton Quay for all options and Willis Street for option 3
- Will have no impact on pedestrian delays
- Will cause a decrease in bus stop occupancy scores along Willis Street (option3) and Courtenay Place (all options)

Tory Street through

- No impact to pedestrian capacity

WAKA KOTAHI
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