# ARUP

#### **TOGA Development & Construction**

### **TOGA** Central

### Walking Space Guide Assessment

Reference: SSD DA - Pedestrian Modelling Analysis

Rev 01 | 23 November 2022

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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## 1. Introduction and Background

TOGA Development & Construction (TOGA) is submitting a State Significant Development (SSD) Development Application (DA) for a mixed-use redevelopment proposal for TOGA Central, located at 2 & 8A Lee Stret, Haymarket (the Site). Arup Australia Pty Ltd (Arup) has supported this DA through pedestrian planning and modelling of AM peak hour movements through the public realm, as documented in the report ARUP-TR-REP-0000001[A] TOGA Central Pedestrian Modelling Analysis.

The City of Sydney (CoS) requested a NSW Walking Space Guide (WSG) Assessment (ref: R.2022/15) as a supplement to the documentation. This report provides an assessment of the existing and future Lee Street footpath conditions as per the WSG methodology.

#### 1.1 The TOGA Development Proposal

The purpose of the SSDDA is to complete the restoration of the heritage-listed building on the site, delivery of new commercial floorspace and public realm improvements that will contribute to the realisation of the Government's vision for an iconic technology precinct and transport gateway. The application seeks consent for the conservation, refurbishment, and adaptive re-use of the Adina Hotel building (also referred to as the former Parcel Post building (fPPb)), construction of a 45-storey tower above and adjacent to the existing building and delivery of significant public domain improvements at street level, lower ground level and within Henry Deane Plaza.

The site is located within the City of Sydney Local Government Area (LGA). The site is situated within the Western Gateway Sub-precinct (covering an area of approximately 1.65ha), located 1.5km south of the Sydney CBD and 6.9km north-east of the Sydney International Airport within the suburb of Haymarket. The site extents are provided in Figure 1.



Figure 1: Western Gateway Sub-precinct with TOGA Development site outlined in red

The site currently comprises the following existing development:

- Lot 30 in Deposited Plan 880518 (Adina Hotel building): the north-western lot within the Western Gateway sub-precinct accommodates a heritage-listed building which was originally developed as the Parcels Post Office building. The building has been adaptively re-used and is currently occupied by the Adina Hotel Sydney Central. The eight-storey building provides 98 short-stay visitor apartments and studio rooms with ancillary facilities including a swimming pool and outdoor seating at the rear of the site.
- Lot 13 in Deposited Plan 1062447 and part of Lot 14 in Deposited Plan 1062447 (Henry Deane Plaza): the central lot within the Western Gateway Sub-precinct adjoins Lot 30 to the south. It accommodates 22 specialty food and beverage, convenience retail and commercial service tenancies. The lot also includes publicly accessible space which is used for pop-up events and a pedestrian thoroughfare from Central Station via the Devonshire Street Tunnel. At the entrance to Devonshire Street Tunnel is a large public sculpture and a glazed structure that covers the walkway leading into Railway Square. This area forms part of the busy pedestrian connection from Central Station to Railway Square and on to George and Pitt Streets, and pedestrian subways.

More details of the site and the proposed developments are provided within the SSDDA which was submitted to City of Sydney.



Figure 22 Photomontage of the development from Lee Street

Source: Bates Smart

Figure 2: TOGA Central EIS Figure 22



Figure 3: TOGA Central EIS Picture 23

#### 1.2 City of Sydney Comment

Section 6.5 of the City of Sydney's comment to the Environmental Impact Assessment (EIS) requests:

- More details regarding pedestrian numbers and space provided for pedestrians for pedestrian routes shown in Figure 22 and Figure 23 (Above as Figure 2and Figure 3); and
- An assessment demonstrating compliance with the NSW Walking Space Guide (WSG).

With respect to the first comment, an Origin-Destination matrix of future pedestrian flows (2056+15%) is included in the Appendix of the TOGA report *ARUP-TR-REP-00000001[A] TOGA Central Pedestrian Modelling Analysis* (as issued within the DA documentation). The O-D matrix describes the number of pedestrian trips modelled between key areas around Central Station. Other assumptions regarding pedestrian route choice (aka "splits") are detailed in Section 4.4 Precinct Route Splits. Route split assumptions are required when there are multiple available routes between an origin and destination pair (e.g. from Western Concourse Exit/Central Walk West to the NW corner of Broadway and Harris/Broadway North). The broad scale of pedestrian flows across the Western Gateway sub-precinct can be understood from Figures 9 through 12 in Section 4.4.

With respect to the second comment, we interpret the referenced pedestrian routes as those summarised in Table 1 below.

Table 1: Interpreted pedestrian routes				
	Description			
Figure 22	Along the Lee Street east footpath adjacent to Adina Hotel			
Picture 23	Lee Street footpath adjacent to the Adina Hotel and Henry Deane Plaza			

# 2. NSW Walking Space Guide

The NSW WSG is a state-wide guide to be applied to assess the Level of Service (LoS) of existing facilities and in the design of comfortable walking spaces. The Guide was developed through a collaboration between the City of Sydney and Transport for NSW (TfNSW) to understand the relationship between pedestrian volumes, density, and comfort in the NSW context, and to establish a consistent framework for assessing footpaths within the built environment.

Given that the WSG is intended for application on street footpaths, the WSG can readily be applied to Lee Street footpath adjacent to the Adina Hotel and Lee Street footpath adjacent HDP staircase, but not for fully pedestrianised areas such as Ambulance Avenue, the Link Zone or Henry Deane Plaza. This report entails a WSG assessment for Lee Street footpath within three segments due to varying widths (shown in Figure 4). Pedestrian modelling results (as documented in *ARUP-TR-REP-00000001[A] TOGA Central Pedestrian Modelling Analysis*, and the Atlassian EIS) should be referenced for performance of other areas of the Western Gateway site.



Figure 4: Footpath Segments Assessed

#### 2.1 Footpath Classifications

The WSG classifies footpaths based on five typologies as described Columns A-D of Table 2A, considering pedestrian demand (in terms of people per hour), land use characterisation, proximity to public transport and proximity to places of interest.

	Čolumn Á	Column B	Column C	Column D
	Peak Hour	Land use characterisation	Proximity to public transport	Proximity to places of
	number of			interest
Footpath	people on the			
Туре	footpath			(where a block is measured
	(Decenter Dece			to a major pedestrian
	(People Per			dispersal point like a street
	Hour – PPHr)	Desidential serves with		intersection)
		Residential areas with		
	Loss than	detached housing, of low		
Type 1	7 DDUs	areas (og industrial		
	/ PPhr	land) isolated 2 storey flat		
		huilding		
		Residential areas that	Adjacent to regional cycle	Within two blocks of a local
		include row or town houses	lane	place of interest
		or up to 3 storey residential		
		flat buildings/mixed use	0-200m from a bus stop	(Table 2B List 1)
		residential buildings	(excluding stops with less	
Type 2	7-69 PPHr	or medium intensity	than 10 services per day)	
		employment areas (up to	0.600m from c 1 D/Dur	
		3 storey campus model	Repid Trapeit (PPT) stor	
		business parks), hotel/motel,	Napid Transit (BRT) stop	
		one or two shops	400-800m from a train/	
			metro station	
		Streets with shops, food	0-400m from a train/metro	Within one block of a local
		and drink premises,	station	place of interest
		entertainment uses or		
		services, residential areas	Footpath adjacent to retail -	(Table 2B List 1)
Type 3	70-399 PPHr	that include residential	0-200m from a bus stop	or
Type 5	70-335 FF11	flat buildings/mixed use	0-300m from a LR/BRT stop	
		residential buildings greater		Within two blocks of a
		than 3 storeys or medium		regional place of interest
		employment industrial areas		(Table 2B List 2)
		Streats with more than 200-	Eastaath adjacent to mt-il	Within one block of a
		of shops, food and drink	0-100m from a train/metro	regional place of interest
		premises entertainment	station	regional place of interest
		uses or services		Table 2B List 2
Type 4	400-2000 PPHr			
		Late night trading/		or
		management areas,		Within two blocks of a
		Mixed use or concloument		metropolitan place of
		wixed use or employment		interest
		areda		
				(Table 2B List 3)
		Very high intensity mixed	0-50m from a transport	Within one block of a
		use, employment, retail,	interchange including at	metropolitan place of
		transport or entertainment	least 2 modes	interest
	Greater than	areas, significant public		(Table 2B List 3)
Type 5	2000 PPHr	places or buildings with very		
		large numbers of people,		
		transport interchanges and		
		associated waiting areas,		
		entries and overnow areas		

Table 2A - Footpath Type Classification

Figure 5: Table 2A from the WSG

#### 2.2 Footpath Performance: Level of Service

Table 4A (shown in Figure 6) within the WSG identifies the LoS of footpaths based on footpath types and width. The WSG aim is for all footpaths to achieve at least LoS C.

Footpath Type	Adjacent to Active Edge	Walking Space and LOS Types 1-4 Minimum Walking Space in metres (m) Type 5 Minimum Walking Space in metres (m) and Maximum Peak Hour flow rate in PPMM					
		LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
Type 1	-	2.7	2.3	2.0	1.6*	1.3*	Less than 1.3*
Type 2	-	3.0 + 0.6 Passing Zone	2.7 + 0.6 Passing Zone	2.3 + 0.6 Passing Zone	1.9 + 0.6 Passing Zone	1.6 + 0.6 Passing Zone	Less than 1.6 + 0.6 Passing Zone
T	Not Adjacent	3.9	3.5	3.0	2.6	2.2	Less than 2.2
Type 3	Adjacent	4.3	3.8	3.2	2.8	2.3	Less than 2.3
-	Not Adjacent	4.8	4.3	3.7	3.2	2.7	Less than 2.7
Type 4	Adjacent	5.2	4.6	3.9	3.4	2.9	Less than 2.9
Tree 6	Min. width (m)	5.2	4.6	3.9	3.4	2.9	Less than 2.9
Type 5	Max. PPMM	4.0	6.0	9.5	13.5	18.0	Greater than 18.0

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Table 4A - Walking Space Level of Service
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\* Note well: equal access issues - see page 33

Figure 6: Table 4A from the WSG

## 3. WSG Existing Conditions Assessment

#### 3.1 Footpath Width

The existing configuration of Lee Street footpath has been assessed within three segments due to the varying widths (Shown in Figure 7). Segment 1 is located adjacent Adina Hotel and Segment 2 is adjacent HDP. As per the WSG, the minimum width of footpaths will be considered when calculating LoS.



Figure 7: Site location and Lee Street footpath

The minimum width of each segment is summarised below and shown in Figure 8, Figure 9 and Figure 10:

- Segment 1: Lee Street footpath adjacent Adina Hotel is approximately 4.3m;
- Segment 2: Lee Street footpath between Adina Hotel and HDP staircase is approximately 7.9m; and
- Segment 3: Lee Street footpath, adjacent HDP staircase is approximately 7.5m (excluding handrails which extrude onto the footpath).



Figure 8: Existing Footpath Measurements (Segment 1: Lee Street Footpath, adjacent Adina Hotel)



Figure 9: Existing Footpath Measurements (Segment 2: Lee Street Footpath, between Adina Hotel and HDP staircase)



Figure 10: Existing Footpath Measurements (Segment 3: Lee Street Footpath, adjacent HDP staircase)

#### 3.2 Hourly Pedestrian Demand

Pedestrian modelling of the precinct did not document the existing pedestrian movements along Lee Street footpath. As such, pedestrian counts for Lee Street footpath were undertaken within the AM peak (8:45-9:00). The peak-15 minutes counts were converted to an hourly rate by multiplying by a factor of 4 to understand the level of demand during the morning peak hour. Note that this methodology is not the specific process as directed in the WSG and achieves a conservatively higher hourly count than the WSG would anticipate.

Table 2 provides the hourly pedestrian flow counts and a brief description of footpaths along with the surrounding land uses that were observed on the site visit. Note that site visit observations for Segment 1 were undertaken on the 2<sup>nd</sup> of November 2022 and site visit observations for Segments 2 and 3 were undertaken on the 23<sup>rd</sup> of November 2022. As such, hourly pedestrian rates for each segment will be analysed individually.

Se	gment	Direction of pedestrian movement	Approx. Hourly Rate (ppl/hr)	Total (ppl/hr)	Description
1	Lee Street Footpath, adjacent Adjaa	<b>Northbound</b> (towards Ambulance Avenue)	~120	~372	The footpath which bounds the Adina Hotel and HDP is located approximately 20m
	Hotel	<b>Southbound</b> (towards Regent Street)	~252	-	from Railway Square, 200m from the entrance to Central
2	Lee Street Footpath,	<b>Northbound</b> (towards Ambulance Avenue)	~220	~676	<ul> <li>Station Grand Concourse.</li> <li>Lee Street footpath is also within two blocks of Henry</li> </ul>
	Hotel and HDP staircase	<b>Southbound</b> (towards Regent Street)	~80	-	Deane Plaza (Public domain), public eating
		<b>Eastbound</b> (crossing Lee Street towards Railway Square)	~112	-	parks, and walking routes.
		Westbound (from Central Station to Railway Square)	~264	-	
3	3 Lee Street Footpath, adjacent HDP staircase	<b>Northbound</b> (towards Ambulance Avenue)	~220	~300	
		<b>Southbound</b> (towards Regent Street)	~80	-	

Table 2: Existing hourly pedestrian rates and description of Lee Street footpath

#### 3.3 Footpath Classification

Hourly pedestrian count rates and site visit observations have been taken into consideration when categorising Lee Street footpath.

Lee Street footpath adjacent to the Adina Hotel and HDP is unique in that it is sited in a very busy part of the city but is separated from any other buildings by 50 to 60 metres. Central Station's Grand Concourse is approximately 200m to the North, the Devonshire Street Tunnel (essentially an extension of Central Station) is just over 60m from the footpath, and Railway Square (a major bus node) is approximately 20m to the West. Despite the proximity to these major transport nodes, there is relatively little north-south pedestrian traffic on the footpath adjacent to the Adina Hotel and HDP.

Table 3 provides an overview of the criteria used to select an appropriate footpath type for both segments along Lee Street footpath.

#### **Table 3: Lee Street Footpath Classification**

	Type 3 Footpath Description	Justification
Column A: <b>Peak hour number of people on the footpath</b> ( <b>people per hour</b> )	70-399 people per hour	<ul> <li>Based on sample counts, it is assumed that approximately 372 people within Segment 1 and 300 people within Segment 2 currently use the footpath on an hourly basis.</li> <li>Footpath 2 will be assessed based on Column B to D.</li> </ul>
Column B: Land use characterisation	Streets with shops, food and drink premises, entertainment uses or services, residential areas that include residential flat buildings/mixed use residential buildings greater than 3 storeys or medium employment industrial areas	Lee Street footpath is located within the southern central hub of Sydney CBD and is within proximity to store fronts, food and beverage premises and entertainment services. However, this section of the footpath bounds the Adina Hotel which is not an active frontage.
Column C: <b>Proximity to public</b> transport	0-400m from a train/metro station Footpath adjacent to retail. 0-200m from a bus stop and 0-300m from a LR/BRT stop	Lee Street footpath is within proximity to the Grand Concourse (200m) and DST (60m) which is an extension of Central Station.
Column D: <b>Proximity to places of</b> interest	Within one block of a local place of interest or within two blocks of a regional place of interest	This section of Lee Street footpath is located within two blocks of regional places of interest such as UTS and Paddy's Market. Local places of interest such as public facilities, public drinking / eating areas (food and beverage businesses and Henry Deane Plaza), walking routes and general practitioners (Pathology Haymarket) are within two blocks of the footpath.

The surrounding land use and location of Lee Street footpath relates to footpath **Type 3.** It is acknowledged that the counts represent a small sample size of the existing demand, however, it was deemed appropriate to collect a sample of data to support the WSG assessment.

#### 3.4 Effective Walking Space

The walking space that is used to determine the LoS is defined by the overall footpath with excluding the following items:

- Kerbside Traffic Buffer
- The width of obstructions and associated buffers
- Any static activity
- Space less than 0.8m wide.

Any obstructions noted above which may fall within the Kerbside Traffic Buffer must not be double discounted. To determine the walking space, the extent of the Kerbside Traffic Buffer is subtracted from the overall footpath width.

The WSG determines the extent of the Kerbside Traffic Buffer within Table 3 (Figure 11).

Table 3 – Kerbside Traffic Buffer

Speed limit up to and including (km/hr)	Kerbside Traffic Buffer (m)
15 or cycle lane or parking lane	0 (1.25)*
20	0.2 (1.25)*
25	0.45 (1.25)*
30	0.7 (1.25)*
35	0.95 (1.25)*
40	1.2
45	1.4
50	1.65
55	1.9
more than 55	2.15

\*See notes, value in brackets is advisory space that should be left for street tree planting

Figure 11: Kerbside Traffic Buffer Identification Table

As the footpath is adjacent to a high traffic volume, a four to five lane road with a speed limit of 40km/hr, the Kerbside Traffic Buffer is identified be 1.2m. The effective walking space for the three segments along Lee Street footpath is summarised in Table 4.

#### Table 4: Effective Walking Space (Existing conditions)

Segm	ent	Effective Walking Space (m)
1	Lee Street footpath, adjacent Adina Hotel	2.8
2	Lee Street footpath, between Adina Hotel and HDP staircase	6.2
3	Lee Street footpath, adjacent HDP staircase	4.8

#### 3.5 Level of Service for Lee Street Footpath (Existing Conditions)

Based on Table 4A from the WSG, the LoS for Segment 1 of Lee Street footpath has been identified to be LoS D which does not meet the NSW minimum LoS C requirement (3m as the footpath is not adjacent to an active building edge) and is short of meeting the minimum by 0.2m. Segments 2 and 3 achieve LoS A.

Lee Street footpath is located within proximity to two major transport nodes (Central Station and Railway Square), public facilities and places of interest which generate high foot traffic around the Toga development. It is worthy to note that the Adina building and the kerb are existing conditions and the TOGA development has not generated the conditions in which LoS is not achieved.

Segn	nent	Effective Walking Space (m)	LoS
1	Lee Street footpath, adjacent Adina Hotel	2.8	LoS D
2	Lee Street footpath, between Adina Hotel and HDP staircase	6.2	LoS A
3	Lee Street footpath, adjacent HDP staircase	4.8	LoS A

 Table 5: LoS of footpaths (existing conditions)

### 4. WSG Future Conditions Assessment

As per the WSG, the following tasks have been undertaken for Lee Street East footpath between the Adina Hotel and Sydney Central Place:

- Analysis of hourly pedestrian demand along Lee Street footpath as extracted from the MassMotion pedestrian simulation model incorporating 2056+15% pedestrian demand (Model source: 01\_56\_AM\_TOGA); and
- An assessment of the future width of Lee Street East footpath, adjacent HDP.

#### 4.1 Footpath Width

The future configuration of the Lee Street East footpath has been assessed within three segments due to the varying widths and direction of pedestrian movement. Segment 1 is located adjacent Adina Hotel, Segment 2 lies between the Adina Hotel and HDP grand stair and Segment 3 is adjacent the HDP stair. As per the WSG, the minimum width of footpaths will be considered when calculating LoS. The minimum circulation width for each segment is and direction of pedestrian movement is summarised in Figure 12 and Table 6.



Figure 12: Future design of Lee Street footpath

#### Table 6: Footpath widths (future conditions)

Seg	gment	Width (m)	Direction of pedestrian movement
1	Lee Street kerb line to the heritage	4.3	North-south
	façade of the Adina Hotel		(Towards Ambulance Avenue or Regent Street)
2	Lee Street kerb line to Adina Hotel	8.3	North-south
	revolving door entrance		(Towards Ambulance Avenue or Regent Street)
		-	East-west
			(Lee Street to Adina Hotel via revolving door)
3	Lee Street kerb line to the HDP	5.5	North-south
	Staircase		(Towards Ambulance Avenue or Regent Street)

Segment	Width (m)	Direction of pedestrian movement
(Staircase leads to the upper level of		East-west
HDP = RL21.5)		(Lee Street to upper level HDP – RL21.5)

#### 4.2 Hourly Pedestrian Demand and Classification

Table 7 highlights the forecast pedestrian demand for each direction of pedestrian movement for each segment within the AM Peak (8-9). Despite higher pedestrian flows which could categorize the footpath as being Type 5, other characteristics relate more closely to footpath Type 4.

Segment		Direction of pedestrian movement	Hourly rates (ppl/hr)	Description	Footpath type
1	Lee Street kerb line to the heritage façade of the Adina Hotel	<b>Northbound</b> (towards Ambulance Avenue)	~ 228*	The footpath is adjacent to the Adina Hotel and is located approximately 20m from Railway Square, and approximately 100m walk from Central Walk West, the primary portal for Central Station in the future.	Type 4
		Southbound (towards Regent Street)	~ 1,819 *		
2	Lee Street kerb line to Adina Hotel revolving door entrance	Eastbound (Accessing the Adina Hotel)	minimal**	<ul> <li>TOGA proposes mix-used activities (commercial, hotel and retail), aligning to Footpath Type 4.</li> <li>Lee Street footpath east of the TOGA site is also within 2 blocks of HDP which is proposed to be redeveloped into</li> </ul>	
		Westbound (Egressing the Adina Hotel)			
3	Lee Street kerb line to the HDP HDP staircase	Eastbound (Accessing the HDP staircase)	~ 251	a two-storey public domain with an uplift in retail activities. A supermarket, public eating spaces, public facilities, parks, and walking routes will also be within two blocks of the footpath.	
	to the upper level of HDP – RL21.5)	Westbound (Egressing the HDP staircase)	~ 121		

Table 7: Future hourly pedestrian rates and description of Lee Street footpath

\*Hourly pedestrian rates for northbound and southbound movement is relevant to Segment 2 and 3

\*\*Hotel user groups accessing / egressing make up a small proportion of user groups within the AM peak.

#### 4.3 Effective Walking Space

Assuming Lee Street (street adjacent to Lee Street footpath) remains unchanged, the Kerbside Traffic Buffer is identified be 1.2m. The effective walking space for the three segments along Lee Street is summarised in Table 9.

Segment		Effective Walking Space (m)	
1	Lee Street footpath, adjacent Adina Hotel	2.8	
2	Lee Street footpath, between Adina Hotel and HDP staircase	7.1	
2	Lee Street footpath, adjacent HDP staircase	4.3	

 Table 8: Effective Walking Space (Future conditions)

#### 4.3.1 Effective Walking Space for Segment 1: Lee Street, adjacent Adina Hotel

The proposal does not intend to widen the Lee Street footpath adjacent Adina Hotel as amending the kerb line is beyond the scope of the development proposal. Figure 13 shows the unchanged and future configuration of Lee Street footpath adjacent the Adina Hotel.

Working from left to right, the WSG dictates that the Kerbside Walking Buffer is 1.2m. Noting that the 1.2m Kerbside Walking Buffer concludes at the midpoint of the tree, the entire 1.5m section between kerb and right edge of tree is not available as effective walking space, leaving 2.8m between tree and building frontage as the effective walking space.



Buffer (1.5m) 1.2m (Kerbside Traffic Buffer) + 0.3m (remaining width from tree)

Figure 13: Future Lee Street East Footpath Buffer and Available Walking Space (Segment 1)

# 4.3.2 Effective Walking Space for Segment 2: Lee Street, between Adina Hotel and HDP HDP staircase

The proposed design outlines the future footpath width for Segment 2 will be approximately 8.3m between kerb and revolving door entrance of the Adina Hotel (Shown in Figure 14). Working from left to right, the WSG dictates that the Kerbside Walking Buffer is 1.2m which leaves a width of 7.1m as the effective walking space.



Kerbside Traffic Buffer

Figure 14: Future Lee Street East Footpath Buffer and Available Walking Space (Segment 2)

#### 4.3.3 Effective Walking Space for Segment 3: Lee Street, adjacent HDP staircase

The proposed design outlines the future footpath width for Segment 3 will be approximately 5.5m between kerb and HDP staircase (Shown in Figure 15). Working from left to right, the WSG dictates that the Kerbside Walking Buffer is 1.2m which leaves a width of 4.3m as the effective walking space.



Figure 15: Future Lee Street East Footpath Buffer and Available Walking Space (Segment 3)

#### 4.4 Level of Service for Lee Street Footpath (Future Conditions)

Utilising Table 4A from the WSG, the LoS for each segment is summarised in Table 9. It shows that Lee Street footpath, adjacent Adina Hotel performs at LoS E which does not meet the NSW requirements of LoS C. A minimum of 3.7m of effective walking width is required to achieve LoS C for a footpath type 4 (not adjacent to an active building edge). Lee Street Footpath, adjacent Adina Hotel is short of meeting the minimum LoS by 1.1m. Note that the shortfall is greater than as measured in the existing condition because the footpath in the future condition is expected to be Type 4, which fundamentally requires more width than in the Type 3 existing condition.

Lee Street Footpath, between Adina Hotel and HDP staircase and adjacent HDP staircase performs at LoS A which achieves TfNSW's minim LoS requirement.

#### Table 9: LoS of footpaths (future conditions)

Segment		Footpath Type	Walking Space (m)	LoS
1	Lee Street Footpath, adjacent Adina Hotel	Type 4	2.8	LoS E
2	Lee Street Footpath, between Adina Hotel and HDP staircase	-	7.1	LoS A
3	Lee Street Footpath, adjacent HDP staircase	-	5.5	LoS A

### 5. WSG Findings

The Lee Street East footpath adjacent to the Adina building is currently categorised as Type 3 and will be a Type 4 in the future given planned development of the Wester Gateway sub-precinct and expansion of Central Station through Central Walk.

Given an effective walking space of 2.8m, the existing footpath for Segment 1 performs at LoS D and should be at least 3m wide to achieve WSG LoS C. The existing footpath is 0.2m short of the target width. Segments 2 and 3 perform at LoS A.

The future Lee Street footpath typology aligns closely with Footpath Type 4 due to the uplift in development around the footpath along with opening of Central Walk West. The future conditions of Segment 1 (Lee Street footpath, adjacent Adina Hotel) will remain unchanged. Under the WSG assessment, the future condition of this segment may perform at LoS E.

The future Lee Street East footpath for Segments 2 and 3 is expected to perform at LoS A, achieving the WSG requirements.

#### 5.1 The Future of Lee Street

We understand that the City of Sydney and Transport for NSW are contemplating the future of Lee Street and how to support mobility (including vehicle, pedestrian and bicycle activity) in this part of CBD south. We understand the future condition is not fixed but the section adjacent to the Adina and HDP may change in operation, in design, and thus in WSG typology and a different LoS outcome. The assessment above assumes no change to Lee Street as a baseline, with some considerations for potential future conditions as follows:

- If Lee Street is fully pedestrianised, the footpath adjacent to the Adina would be extremely wide and would be expected to perform at LoS A.
- If Lee Street becomes a shared street, pedestrian movements within and along the street would be expected, and the East footpath width would likely be able to take credit of some additional width, thereby improving the LoS.
- If Lee Street becomes a limited access or bus-only street, the WSG outcome would be dependent on how the future street is aligned (i.e. kerbs and width) and the expected future level of general/bus traffic. It would be expected that there would be less vehicle traffic than in the existing condition, potentially operating at lower speeds, which would reduce the WSG Kerb Buffer. In this scenario the Lee Street footpath adjacent the Adina Hotel would likely perform better than LoS E.