Lendlease will be responsible for instructing and controlling all subcontractors regarding the hours of work. Any work outside the approved construction hours would be subject to specific prior approval from Council.

Consideration will be given where practical to ensure that the majority of heavy vehicle movements including concrete trucks are completed outside peak periods, between 10am and 3pm.

### **10.2.3** Construction vehicle volumes

The site will have various types of construction vehicles accessing the site. The largest construction vehicles will include Truck and Dog Trailers with the majority to be 19m Articulated Vehicles.

Pending on design outcomes, the project may use a 'restricted access low load trailer for structural steel components' (up to 25m). Separate approval from the City's Construction Regulation Unit will be required for each occurrence.

It is expected on a busy construction day the following construction vehicles would be generated:

- 30 concrete trucks
- 20 pre-cast steel and structural steel delivery trucks
- 10 smaller delivery vehicles

## **10.2.4** Construction vehicle routes

Generally, construction vehicles will have origins and destinations from a wide variety of locations throughout Sydney. However, all construction vehicles will be restricted to the State and Regional Road network where practicable.

As such, dedicated construction vehicle routes have been developed with the aim to provide the shortest distances to/ from the arterial road network whilst minimising the impact of construction traffic on Sydney CBD and local streets.

No vehicles larger than 12.5m heavy rigid vehicles are to be used on local roads (unless specific separate approval is obtained from the City's Construction Regulation Unit). Truck drivers will be advised of the designated truck routes to/ from the site. The construction vehicle routes are detailed below and shown in Figure 20. No queuing or marshalling of construction vehicle will be permitted on public roads.

#### **Approach Routes**

North:

- Eastern Distributor, Moore Park Road, right into Driver Avenue
- Oxford Street, Moore Park Road, left into Paddington Lane
- Oxford Street, Moore Park Road, left into Driver Avenue.

#### South:

- South Dowling Street, Oxford Street, Moore Park Road, left into Paddington Lane
- South Dowling Street, Oxford Street, Moore Park Road, left into Driver Avenue.

#### East:

- Oxford Street, Moore Park Road, left into Paddington Lane
- Oxford Street, Moore Park Road, left into Driver Avenue

#### West:

• Albion Street, Flinders Street, Moore Park Road, right into Driver Avenue.

#### **Departure Routes**

#### North:

- Left out of Driver Avenue, Moore Park Road, Eastern Distributor
- Left out of Paddington Lane, Moore Park Road, Eastern Distributor.

#### South:

- Left out of Driver Avenue, Moore Park Road, Fitzroy Street, South Dowling Street
- Left out of Paddington Lane, Moore Park Road, Fitzroy Street, South Dowling Street

#### East:

- Left out of Driver Avenue, Moore Park Road, Fitzroy Street, South Dowling Street
- Left out of Paddington Lane, Moore Park Road, Fitzroy Street, South Dowling Street
- Right out of Driver Avenue, Moore Park Road, Oxford Street.

#### West:

- Left out of Driver Avenue, Moore Park Road, South Dowling Street, Cleveland Street
- Left out of Paddington Lane, Moore Park Road, South Dowling Street, Cleveland Street.



Figure 20 Construction vehicle routes

## **10.2.5 Operations during events at the SCG**

Given proximity to the SCG, an event mode CPTMP will be implemented on site on scheduled SCG event days to ensure the safety and amenity of the patrons and staff travelling to/ from the SCG.

During event mode, construction works must be undertaken in accordance with the following requirements unless prior approval is granted by the Sydney Coordination Office and Transport Management Centre within TfNSW and Roads and Maritime Services:

- Construction or associated works must cease at least two hours prior to an event;
- No construction works are to be undertaken during an event; and
- No construction works are to be undertaken for at least two hours after the completion of an event.

Furthermore, Lendlease will close all site gates, and cover construction traffic management signage during event mode to allow general access and egress to the SCG via Paddington Lane and Moore Park Road and to ensure emergency and evacuation plans are maintained.

## **10.2.6** Construction Worker Parking

Minimal (likely to be zero) on-site car parking will be provided for construction staff. Staff will instead be required to arrive to the site by public transport or park in nearby parking stations, which is similar to arrangements for other major development projects in close proximity to the Sydney CBD. The significant majority of parking spaces in nearby residential streets are subject to resident parking schemes, where parking is not permitted by visitors for periods of more than two hours. Given staff will be on-site for periods of more than two hours, onstreet parking in these residential streets will not be possible. As part of the construction traffic management to be prepared prior to the commencement of works, workers will be directed to park in formal off-street parking areas in the vicinity of the site.

During site induction, workers will be informed of the existing bus and train network servicing the site.

To support construction workers in utilising public transport, appropriate arrangements will be made for any equipment/ tool storage and drop-off requirements.

## **10.2.7** Construction site access

Site access for vehicles for the Stage 2 works is proposed to be provided via access points along Moore Park Road and Driver Avenue.

Entry locations include:

- Paddington Lane, accessed via Moore Park Road (Gate 1?)
- Driver Avenue

Exit locations include:

- Moore Park Road, Gate 2 & 3
- Driver Avenue

Due to the median in the middle of Moore Park Road, the Paddington Lane entry will be limited to left in movements only and exit via Gates 2 & 3 will be limited to left out movements only. The primary site access locations are shown in Figure 21.



Figure 21 Vehicle site access

## **10.2.8** Vehicle sizes

Construction vehicle access to the site will be limited to vehicles up to a 19m Articulated Vehicle (AV), and Truck and Dog Trailers.

## 10.2.9 Work zones

All construction vehicles will be unloaded within the project boundaries, with no loading / unloading to occur on street. A sufficient manoeuvring area has been provided within the construction site, to ensure construction vehicles can enter and exit in a forward direction.

No on-street works zones are proposed as part of the construction works.

# **10.3** Management of construction activities

## **10.3.1** Traffic Guidance Scheme

Detailed information for work site operations is contained in the Traffic Control at Work Sites manual (Roads and Maritime, 2018). The control of traffic at work sites must be undertaken with reference to WorkCover requirements and any other Workplace Health and Safety manuals.

The proposed traffic guidance schemes, provided in Appendix B, includes the following considerations:

- Construction vehicle activity, including the loading/ unloading of trucks to be conducted within the work site.
- Pedestrians and all passing vehicles will maintain priority.
- Clear definition of the work site boundary to be provided by erection of B Class hoardings and site fencing around the site boundaries.
- All signage will be clean, clearly visible and not obscured.
- All construction vehicle activity will be minimised during peak periods, where possible.

## **10.3.2** Pedestrian Management

Pedestrian movements will be maintained through the provision of a mixture of construction site fencing and hoardings along the perimeter of the site. Pedestrian and cyclist movements are not expected to be impacted along the site frontage.

## **10.3.3 Public Transport**

It is not expected that public transport services would be affected by the works. The small number of additional construction vehicles would not impact the operation of the public transport network in the vicinity of the site. The number of daily vehicles associated with the works will be less than that currently using the MP1 car park.

The relatively close proximity of public transport servicing the site via the bus network or walking from Central Station will enable construction personnel to easily access the site via public transport, minimising the road traffic impact around the site. Further, the period of construction overlaps with the expected opening of Sydney Light Rail in 2019, providing an additional public transport option for workers accessing the site.

## **10.3.4** Road network impacts

The number of construction vehicles associated with the SFS construction works is low - at most 10-12 movements per hour. This number of additional vehicles is not significant enough to warrant any modifications or upgrades to the road network.

## **10.3.5** Emergency Vehicle Access

#### **Non-Event Mode**

Access to the subject site and adjacent buildings by emergency vehicles would not be affected by the works as road and footpath frontages would be unaffected. Emergency protocols on the site would include a requirement for suitably accredited site personnel to assist with emergency access from the street.

Consequently, any potential impacts on emergency access would be effectively managed throughout the works.

Liaison would be maintained with the police and emergency services agencies throughout the construction period and a 24 - hour contact would be made available for 'out-of-hours' emergencies and access.

#### **Event Mode**

During event mode Lendlease will alter site gate along Paddington Lane to allow general access and egress to the SCG and to ensure emergency and evacuation plans are maintained.

### **10.3.6** Site induction

All staff employed on the site by Lendlease (including sub-contractors) would be required to undergo a site induction.

The induction would include permitted access routes to and from the construction site for site staff and delivery vehicles, limited parking arrangements, as well as standard environmental, workplace health and safety, driver protocols and emergency procedures. The approved work hours must be included as part of this induction.

## **10.3.7** Site inspections and record keeping

The construction work would be monitored to ensure that it proceeds as set out in the Construction Management Plan provided by Lendlease. A daily inspection before the start of the construction activity should take place to ensure that conditions accord with those stipulated in the plan and there are no potential hazards. Any possible adverse impacts would be recorded and dealt with if they arise.

A record of all incoming vehicles will be kept at each access gate, with records kept for a minimum of 30 days. Lendlease will install a security camera or CCTV system at each access gate to record all vehicle movements.

# **10.4** Impacts to CBD and South East Light Rail works

The construction works associated with the CBD and South East Light Rail were originally scheduled for completion in early 2019. However, it is now envisaged the light rail construction will continue through to the end of 2019, resulting in a short overlap period with the construction works for the SFS.

By the time construction of the SFS commences in November 2019, it is anticipated that the vast majority of construction activities associated with the CBD and South East Light Rail will be completed. Most of the activity prior to opening of the light rail will be focused on testing and commissioning, rather than any actual construction related activities.

It should also be noted that the construction vehicle routes for the light rail project do not coincide with those that are to be used for the SFS works. These routes (shown in Figure 22) are focused on Anzac Parade and the Eastern Distributor (Randwick) entry/exit. The construction routes to be used for the SFS works will generally be via South Dowling Street and Moore Park Road.



Figure 22 CBD and South East Light Rail construction vehicle routes

Source: CBD and South East Light Rail Project Environmental Impact Statement Volume 2 Technical Papers Construction Traffic Management Plan prepared by Booz & Co./AECOM dated 7 November 2013

# **11 Summary and Key Findings**

This transport assessment supports a State Significant Development (SSD) Development Application (DA) for the redevelopment of the Sydney Football Stadium. The assessment outlines a strategy for a safe, simple, enjoyable and seamless arrival and exit arrangements for patrons, irrespective of the mode of travel by which they propose to attend events. The objective of this assessment is to support the Stage 2 planning report by assessing and reporting the existing and future conditions. Key findings of the assessment are summarised in the table below:

Mode	Key Finding
Stadium access and circulation	• The proposal significantly enhances access and movement for pedestrians in and around the Moore Park precinct, including connectivity through the concourse area between Moore Park Road and Driver Avenue 365 days of the year.
Travel demand	• As the stadium capacity will not increase from current conditions, the peak travel demand will remain unchanged
	• Based on the transport mode under a range of different scenarios, the future transport network has the capacity to accommodate the expected travel demand to the SFS for both major events and double headers
Light Rail	• The opening of the CBD and South East Light Rail will significantly improve public transport accessibility and further increase the attractiveness of public transport as a means of access to the SFS.
	• Close to 11,000 passengers per hour can be accommodated on special event light rail services, which is a significant increase compared to the existing special event bus arrangements.
Pedestrians	• The walking network and experience from Central Station to the SFS via Devonshire Street will be significantly enhanced following the completion of the CBD and South East Light Rail in 2019.
	• A pedestrian route capacity analysis indicates that, even under a worst-case double header scenario, footpaths in the precinct have the capacity to accommodate crowd movements
Cycling	• Cycling access to the SFS will be enhanced in future through the following measures:
	• 150 bicycle parking spaces in the public domain
	• Better promotion of cycling facilities via the green travel plan
	Improved wayfinding to the SFS
	• Secure bicycle parking for permanent staff and casual employees
	New Bondi Junction to City cycleway proposed along Moore Park Road
Bus	• Special event bus services will continue to operate for events at the SFS
Parking	• The SFS redevelopment project does not propose to increase car parking in the precinct compared to existing levels.

Table 12	Summary	of key	findings

Mode	Key Finding
Service vehicles	• The redeveloped SFS proposes to use Driver Avenue and the existing MP1 car park as the primary access and egress point for service vehicles to the stadium. A 360 degree service road will be provided under the general concourse under to allow full circulation of services vehicles within the stadium.
Road network	<ul> <li>It is envisaged the volume of traffic on the road network on event days will reduce in future (compared to current levels) for the following reasons:</li> <li>The CBD and South East light rail will offer a significantly improved level of service for people travelling to the SFS by public transport.</li> <li>With the completion of the light rail, a significant number of special event bus shuttles that travel Central Station and Moore Park will be discontinued.</li> <li>Implementation of measures outlined in the green travel plan</li> </ul>
Taxis	<ul> <li>Via consultation with Transport for NSW and the Transport Management Centre, the following locations have been identified to enhance access for taxis during events at the SFS:</li> <li>Moore Park Road west of Oatley Road (northern kerb)</li> <li>Moore Park Road between Regent Street and Poate Road (southern kerb)</li> <li>Lang Road, between 114-120 Lang Road and Cook Road (northern kerb)</li> </ul>
Rideshare	• It is envisaged a 'geo-fence' will be introduced for ride-share vehicles post events at the SFS, similar to that currently in place for events at Bankwest Stadium. This will ensure ridesharing services will not adversely impact traffic or pedestrian movements in the vicinity of the SFS during the intensive post-event egress period.
Coaches	• Via consultation with Transport for NSW and the Transport Management Centre, opportunities for increased levels of coach parking and layover in the precinct have been identified. This includes using the southern kerbside along Moore Park Road, between Driver Avenue and Oatley Road.
Green travel plan	• A green travel plan has been prepared in support of this application which aims to positively influence the travel behaviour of users of the venue by promoting alternative travel modes to car
Construction traffic	• The number of construction vehicles associated with the SFS construction works is low – at most 10-12 movements per hour. This number of additional vehicles is not significant enough to warrant any modifications or upgrades to the road network
Road user safety	<ul> <li>A number of measures proposed as part of the stadium redevelopment will enhance road user safety, including:</li> <li>Encouragement of the walking route via Devonshire Street and reduction of reduce pedestrian demand and congestion Moore Park Road / Flinders Street / Anzac Parade</li> <li>The design shifts the existing stadium to the south west and improves safety at the Moore Park Road / Regent Street intersection by creating additional space for pedestrians to store within the site boundary</li> <li>Introduction of formal taxi ranks reducing instances of vehicles circulating on local residential streets</li> </ul>

# Appendix A

# Existing Conditions Assessment

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# A1 Existing Environment

# A1.1 Facilities

## A1.1.1 Access Points

The SFS had two main access points on the northern side and on the western side of the stadium. The northern access point is located off Moore Park Road near the intersection of Regent Street. This entry point is stair access only, shown in Figure 23. The western access point is located off Driver Avenue, between the Rugby League and Cricket administration buildings as shown in Figure 24. The western access point generally accommodates a higher volume of pedestrians due to the location of the car parks, bus loop and Central Station to the west of the SFS.



Figure 23 Northern access point off Moore Park Road



Figure 24 Western access point off Driver Avenue

In addition vehicular and pedestrian access is also provided to the Sheridan building which fronts Moore Park Road.

### A1.1.2 Workforce

The workforce at the SFS varies greatly between event and non-event days. There is approximately 130 full time staff on a regular day at the SFS. On event days there is currently up to 1,200 staff which includes stadium staff, security, police, first aid officers and precinct staff.

### A1.1.3 Hours of operation

Events are held at the SFS throughout the day and evening dependent on the calendar of the sporting code or concerts. Events must typically finish before 22:30 for both concerts & sporting events due to noise restrictions, however may continue until 23:00 if an occurrence beyond the control of the Trust delays the event.

### A1.1.4 Events

The SFS is a rectangular venue for rugby league, rugby union and soccer. The major tenants are Sydney Roosters (rugby league), NSW Waratahs (rugby union) and Sydney FC (soccer/football).

Table 13 shows the highest attended events recorded at Sydney Football Stadium since it was opened in 1988. The largest attendance was in 2017 at the Coldplay concert where 49,785 people attended.

Date	Code	Event	Attendance
14/12/2017	Concert	Coldplay	49,785
13/12/2017	Concert	Coldplay	48,037
9/12/2015	Concert	Ed Sheeran	47,641
25/06/2016	Rugby Union	Wallabies v England	44,063
21/06/2014	Rugby Union	Wallabies v France	43,188
7/05/2017	Football	A-League Grand Final: Sydney FC v Melbourne Victory	41,546
25/04/2018	Rugby League	St George Illawarra Dragons v Sydney Roosters	41,142

Table 13 Highest attendances from past events
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# A1.2 Transport access overview

The stadium is relatively accessible being situated on the outskirts of the Sydney CBD. Directly south of the stadium is the Sydney Cricket Ground and The Entertainment Quarter.

Central Station is approximately 1.8km away from the entrance to the SFS, with major walking routes via Foveaux Street, Devonshire Street and Cleveland Street. Event buses run from Central Station and carry people directly into the Moore Park precinct, using the event bus loop located to the west of the SFS. Flinders Street acts as the key route for pedestrians walking from the Sydney CBD into Moore Park.

The South East Light Rail will open in 2019 has a dedicated stop serving the Moore Park sports and entertainment precinct connecting people travelling from Sydney CBD and Kingsford/Randwick.

On the northern and eastern side of the stadium there are residential pockets with grid-like streets which are permeable for pedestrians. The recently opened Albert Tibby Cotter Walkway pedestrian bridge assists pedestrians accessing the stadium from the west via Moore Park West and Surry Hills.

By car the stadium is accessible by Driver Avenue which runs north- south on the western side of the SFS. Driver Avenue is accessed by Moore Park Road from the north and Lang Road from the south. This road is closed as a thoroughfare prior to and during events and it used for car park entries and also pick up and drop off locations pre and post-match. There are a number of bus stops that service the stadium located along Anzac Parade and the eastern side of Moore Park Road.

Figure 25 summarises transport access to the former SFS.



# A1.3 Event traffic management plan

All events held at the SFS require the development of a traffic management plan (TMP). The TMP outlines the strategy to ensure safe access to the site for staff and patrons arriving in all transport modes. This includes any staffing, barricading, gate closures, signage and marshalling required. The plan aims to minimise interruptions on general traffic flow on the surrounding road network.

Figure 26 and Figure 27 summarise key vehicle movement changes for ingress and egress TMP measures used for a regular event held at the SFS.



Figure 26 Event ingress TMP



Figure 27 Event egress TMP

# A1.4 Data collection

## A1.4.1 Overview

To better understand how people travel to the SFS, transport surveys were undertaken for a number of football codes. A summary of the data collected is shown in the Table 14.

Table 14 Summary of data collected

Type of Data		Event			
	Method of collection	NSW Waratahs (24.02.18)	Sydney FC (25.02.18)	Sydney Roosters (16.03.18)	Sydney FC (17.03.18)
Vehicle, pedestrian and bicycle counts	Counts at the following locations: Driver Avenue / Moore Park Road Anzac Parade / Moore Park Road Moore Park Road / Regent Street Anzac Parade / Lang Road Lang Road / Driver Avenue Landing of Tibby Cotter Bridge	~	$\checkmark$		
Parking counts	Counts at the following locations (access to car parking areas Entry to car park EP1 Entry to car park EP2	$\checkmark$	$\checkmark$		
Travel behaviour (mode share)	Interview surveys of patrons as they enter the stadium precinct. The surveys focus on mode of travel	$\checkmark$	*	$\checkmark$	$\checkmark$

\* Not undertaken due to inclement weather

## A1.4.2 Mode share

Travel behaviour surveys were undertaken in person prior to the commencement of each event. The number of people surveyed at each event is noted below:

Football Code	Home Team	Date	# responses	% of total attendance
Rugby Union	NSW Waratahs	24.02.2018	877	18%
Rugby League	Sydney Roosters	16.03.2018	619	12%
Football	Sydney FC	17.03.2018	915	21%

Table 15 Summary of travel behaviour surveys

The surveys were conducted at each of the entrance gates to the SFS, those being on the western side adjacent to Driver Avenue and on the northern side adjacent to Moore Park Road. The surveys were undertaken from the time the gates opened at the ground to the start of the match. Respondents were asked to nominate their mode of travel to the SFS. Figure 28 shows the mode share splits at the events.



Figure 28 Mode share split for surveyed events

Driving was the dominant mode of travel to SFS across each of the events surveyed; 47% rugby union, 43% rugby league and significantly higher at football with 66% of people surveyed arriving by car as a driver or passenger. Car mode share was particularly high for the Sydney FC match due to the low attendance and opposition team outside of Sydney.

Point to point services which includes taxi and Uber together had a mode share of 21% for rugby union which was the second most common mode. For rugby league the second most common mode was 19% by bus. Walking was common across all events, combining the complete journey made by foot or walking from Central Station with mode share between 10% to 20% for all events.

## A1.4.3 Arrival profile

The pedestrian and vehicle arrival profile were obtained using the traffic and pedestrian counts that were undertaken on the 24th and 25th of February 2018. For both events the arrival profiles are relatively similar. The pedestrian arrival profile grows steadily from when the gates open up until kick off, as shown in Figure 10 and Figure 12. The results indicate that approximately 70% of people arrive to the match in the hour immediately prior to the start time.

Vehicle arrival shows there are more vehicle arriving initially after the gates open and less arrive closer to kick-off. This is reflective of people arriving earlier to secure a parking spot. The vehicle arrival profiles are shown in Figure 11 and Figure 13 and indicate a more distributed arrival profile when compared to people arriving by other modes of transport.



Figure 29 Rugby union pedestrian arrival profile



Figure 30 Rugby union vehicle arrival profile



Figure 31 Soccer/football pedestrian arrival profile



Figure 32 Soccer/football vehicle arrival profile

## A1.4.4 Vehicle occupancy

Vehicle occupancy was captured in the travel behaviour survey. The values are based of patrons arriving to the stadium by a private vehicle as a passenger or driver. Results are summarised in Figure 33 and include:

- 90% of vehicles had two or more passengers
- 26% of vehicles four or more passengers
- The average vehicle occupancy was 2.70 people per vehicle.



Figure 33 Vehicle occupancy

# A1.5 Walking

## A1.5.1 Pedestrian network

There is an extensive pedestrian network which connects the stadium to its surroundings. This network supports walking as a transport mode accessing the stadium, whether it is the whole trip being made by foot or it is the final leg of the journey from another transport mode. The pedestrian experience varies greatly across the precinct. Terrain surrounding the SFS is relatively flat to the north, east and south however approaching the stadium from the west it is relatively steep.

A popular way of travelling to the SFS is walking from the west from Central Station through Surry Hills. Pedestrians use several streets in Surry Hills to get to the stadium including:

- Foveaux Street and Fitzroy Street (~1.5km walk)
- Cooper Street and Arthur Street (~1.8km walk)
- Devonshire Street and Parkham Street (~ 1.8km walk)
- Elizabeth Street and Cleveland Street (~2.4km walk)

The key pedestrian routes to the SFS are highlighted in Figure 34.



Figure 34 Existing key pedestrian routes

The highest volumes of pedestrians are seen along Foveaux Street and Fitzroy Street, which is perceived by most people to be the quickest and most direct route. There are also a number of activated street frontages along this route, with people commonly stopping at venues on their way to or from events. Wayfinding signage directs people walking to Central via this route, with an example shown in Figure 35. The walking experience along this route however is not ideal due to the narrow footpaths in certain locations, high passing traffic flows as well as the crossings of major roads required of South Dowling Street and Anzac Parade. Further, this route directs people to 'Drivers Triangle' (intersection of Moore Park Road / Anzac Parade / Flinders Street) which is a major source of pedestrian and vehicle conflicts due to the lack of crossing facilities and minimal footpath space for the high volumes of pedestrians.



Figure 35 Wayfinding signage outside the SFS to Central Station

The pedestrian route via Devonshire Street is not currently heavily utilised due to the ongoing construction for the Sydney Light Rail project. There is also limited wayfinding, lighting and signage in the surrounding streets along this route, particularly in Moore Park West. Once completed, the route via Devonshire Street will be attractive to more people given the low traffic volumes, improved legibility due to the introduction of the light rail and grade separated pedestrian crossings of South Dowling Street and Anzac Parade (via the Albert Tibby Cotter Bridge). Devonshire Street would be the easiest walking route and was the key walking route during the 2000 Sydney Olympic Games.

The pedestrian experience through currently Moore Park East currently is poor due to limited lighting and not well defined footpaths.

The footpaths on the south west side of the stadium are mostly wide shared paths through parklands and open space which creates a pleasant pedestrian

environment. There is a shared path along Anzac Parade which provides access for a number of people accessing the stadium. The directional proportion of pedestrians arriving at the station is shown in Figure 36.



Figure 36 Direction of travel for people walking to the SFS

## A1.5.2 Pedestrian flows

Figure 18 and Figure 19 respectively show the pedestrian volumes towards the stadium in the hour prior to start of and immediately following the event on the 25th of February (Sydney FC). It highlights that the majority of pedestrians arrive to the stadium from the north-west through the Moore Park Road / Anzac Parade intersection. This is the result of Foveaux Street being the most common walking route from Central Station while light rail construction takes place on Devonshire Street. The relatively low usage of the Albert Tibby Cotter Bridge, particularly post match, indicates the requirement to improve wayfinding and lighting along this route.

Figure 20 and Figure 21 show the same movements during peak hour on a nonevent day. These volumes are significantly lower, showing the main pedestrian activity in the precinct is generated on match days.



Figure 37 Pedestrian flows in hour prior to start of event (25th Feb)



Figure 38 Pedestrian flows in hour following conclusion of event (25th Feb)



Figure 39 Pedestrian flows towards SFS on non-event day (5.30pm-6.30pm)



Figure 40 Pedestrian flows away from SFS on non-event day (5.30pm-6.30pm)

# A1.6 Cycling

The SFS sits within an extensive regional and local bicycle network. Figure 41 highlights cycle network and parking surrounding the SFS, and includes the following facilities:

- On-road bicycle lane provided on each side of Moore Park Road, providing a connection up to Oxford Street in Paddington.
- An off-road shared path along Anzac Parade which provides a key connection to the precinct from both the Sydney CBD and the south-east.
- An off-road shared path on the southern side of Lang Road, providing a connection into Centennial Park.
- An off-road shared path on the southern side of Cleveland Street, which provides a connection across South Dowling Street into Surry Hills and Redfern.
- An off-road shared path on the southern side of Fitzroy Street, providing a connection from Surry Hills.
- An on-road cycle lane on Greens Road, providing a connection from the SFS through to Paddington and Darlinghurst.



Figure 41 Cycle network around the SFS

There are a number of bicycle parking facilities in close proximity to the SFS which are used by people attending events. These are provided in close proximity to the entry points, with an example shown in Figure 42.



Figure 42 Bicycle parking at the SFS

# A1.7 Public transport

## A1.7.1 Rail

Central railway station is the closest station to the stadium, with pedestrian connections previously described in section 3.5. Sydney Trains often provides additional services, particularly for intercity Services, for major events at Moore Park. When there is scheduled track work that impact services in the CBD, TfNSW operates additional bus services from Moore Park to locations such as Wynyard or rail replacement buses.

## A1.7.2 Bus and coach

The SFS is serviced by both regular buses routes and special event buses, both operated by TfNSW. Key bus stops for SFS patrons are located along Anzac Parade, Lang Road and Oxford Street and the bus station at Moore Park East is for event shuttles. Bus routes servicing the station are described in the sections below.

#### TfNSW services

Bus stops along Anzac Parade are serviced by bus routes travelling between the Sydney CBD, Surry Hills and the eastern suburbs. Many of these routes are serviced by a bus only road that runs adjacent to Anzac Parade

Bus stops along Oxford Street are serviced by bus routes travelling between the city, Chatswood, Marrickville, Rozelle to Bondi Junction. These routes illustrated in Figure 43, and typically run at frequencies of between 5 and 30 minutes on weekdays.



Figure 43 Bus services surrounding the SFS

#### **Event day services**

Event shuttle bus services are a popular method of travelling to the station. The event bus services are operated to link patrons to the wider Sydney public transport network – in particular Central Station. Event buses use the Moore Park bus loop to pick up and drop off. Services will continue to operate once light rail is completed however the number of services will be reduced.

Depending on the event and geographic spread of the crowd (e.g. to the Northern Beaches or Sutherland Shire), event buses are also operated as charter services paid for by various codes. Route 1 shuttle operates between Central Station (departing Eddy Avenue) and Moore Park. After the event these shuttle services run for approximately one hour. The route runs from Central Station up Albion Street and into Anzac Parade. On departures Fitzroy Street and Foveaux Street is used to travel back to Central Station, as shown in Figure 44.

#### Coaches

Coaches currently use Moore Park Road and the southern end of Driver Avenue on event days to drop off and pick up passengers.



Figure 44 Route 1 shuttle service route



Figure 45 Route 1 special event bus

## A1.7.3 Integrated ticketing

Currently public transport is included in the price of admission for events hosted by the NSW Waratahs and Sydney FC. Other codes are required to negotiate terms of potential integrated ticketing arrangements directly with Transport for NSW.

# A1.8 Vehicle access

## A1.8.1 Road network overview

#### Anzac Parade

Anzac Parade is classified as a state route which runs north-south to the west of the stadium. The road is three lanes in each direction and provides access to the Eastern Distributor tunnel as well as other key destinations. During peak school hours there are 40km/hour restrictions (8:00-9:30am and 2:30-4:00pm) outside Sydney Girls and Boys High School for both directions.

#### **Moore Park Road**

Moore Park Road is classified as a regional route on the northern side of the stadium, connecting Anzac Parade to Oxford Street in Paddington. It provides two lanes of traffic in each direction, with additional turning lanes at intersections.

There is an eastern distributor exit east of the intersection of Moore Park Road and Anzac Parade. The speed limit is 50km/hour.

#### Lang Road

Lang Road is a local road on the southern and eastern side of the stadium. It connects Anzac Parade and Moore Park Road. The road is two lanes each way between Cook Road and Anzac Parade and one lane each direction between Cook Road and Moore Park Road. It is a key road to access the stadium from the south.

#### **Driver Avenue**

Driver Avenue is under the control of Centennial Park and Moore Park Trust, directly west of the stadium and is the road used to access some of the main parking facilities. It is one lane each way and connects Moore Park Road and Lang Road.



Figure 46 Road network classification

#### A1.8.2 Site access

There are three primary access points to major car parks / drop off areas in the Moore Park precinct which service the SFS, as shown in Figure 47. The northern end of Driver Avenue provides access to the EP2 car park with a right turn and the MP1 car park with a left turn. The south side of the precinct is accessible using

Lang Road from both approaches, where vehicles can turn onto Driver Avenue to access EP3 or Errol Flynn Avenue for the Entertainment Quarter car park.

In addition, Paddington Lane is used before, during and after events which provides access for service vehicles into and out of the stadium precinct.



Figure 47 Vehicle access to Moore Park Precinct

## A1.8.3 Servicing

Service, VIP and emergency vehicles currently access the site using Paddington Lane on the eastern side of the stadium. Service vehicles are not permitted during events. No vehicles are permitted to access the laneway during events except VIP vehicles, team buses and emergency services.

## A1.8.4 Existing traffic volumes

Vehicle intersection counts were undertaken at key locations around the SFS for a four-hour period between 5:00pm-9:00pm on the 24<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup> February; which are representative of ruby union game day, soccer game day and a nonevent day respectively. The following figures show a comparison between movements for each day highlighting the movements towards the stadium pregame and movements away from the stadium post-game.

Figure 48 and Figure 49 compare vehicle volumes a non-event day peak hour and the hour prior to kick off on an event day at the northern and southern end of Driver Avenue. There is more than double the amount of vehicle movements across the hour in an event day scenario and it should be noted Driver Avenue is closed as a thoroughfare before, during and after events. This comparison highlights that the main use of Driver Avenue is to access car parking and for drop off on event days.

Figure 50 and Figure 51 are the vehicle volumes at the surrounding intersections during the hour before the event. The key movements are shown highlighting the demand towards the stadium before the event and away from the stadium after the event. Figure 52 and Figure 53 show the same key movements highlighted during the peak hour on a non-event day. This comparison shows that the volumes of vehicles arriving to the stadium prior to a game is comparative to the volumes experienced during a weekday PM peak. Higher volumes are seen however along Lang Road.


Figure 48 Vehicles using Driver Avenue on a non-event day



Figure 49 Vehicles using Driver Avenue on event day (25th February)



Figure 50 Intersection vehicle volumes hour before kick-off (25th February)



Figure 51 Intersection vehicle volumes hour after kick-off (25th February)



Figure 52 Non event day peak hour 5:30-6:30pm traffic flows (towards stadium)



Figure 53 Non event day peak hour 5:30-6:30pm traffic flows (away from stadium)

### A1.8.5 Road network performance

An assessment of the existing network performance was undertaken using SIDRA intersection modelling software. The models were built using SIDRA (v7) intersection modelling software and the performance assessed using the following metrics:

- Level of service (LoS): LoS expresses how well the intersection is performing overall. The score ranges from A (free flow, excellent conditions) to F (long delays, queues are not clearing each cycle).
- **Degree of saturation:** Degree of saturation measures the ratio of the actual volume to the capacity of the intersection.
- 95th percentile back of queue: A 95th percentile queue length is the length of the queue that is only exceeded 5% of the time.

The SIDRA modelling was based on traffic volume counts carried out at the dates and times shown in Table 16.

Day	Date	Event	Peak Hour Modelled
Saturday	24/02/18	Rugby Event	6:30PM - 7:30PM
Sunday	25/02/18	A-League Event	5:30PM - 6:30PM
Monday	26/02/18	Non-event day	5:00PM - 6:00PM

Table 16 Traffic Counts

The SIDRA results were calibrated via site inspections of queue lengths and the modelling results are summarised in the following tables and figures. Full SIDRA modelling outputs are provided in Appendix A.

Table 17 SIDRA	Intersection	Performance	(24 <sup>th</sup>	February	2018)

Intersection	24/02/18		25/02/18		26/02/18	
	DoS	LoS	DoS	LoS	DoS	LoS
Moore Park Road & Driver Avenue	0.81	В	0.82	В	0.67	А
Moore Park Road, Anzac Parade, Flinders Street, M1 & Fitzroy Street	0.76	В	0.74	В	0.80	В
Moore Park Road & Regent Street	0.87	В	0.88	В	0.78	А
Anzac Parade, Cleveland Street & Lang Road	0.87	С	0.76	С	0.94	D
Lang Road & Driver Avenue	0.78	В	0.80	В	0.73	А



Figure 54 Intersection Performance Overview

The intersections were found to generally perform acceptably during the surveyed periods. The Anzac Parade / Lang Road intersection typically approaches capacity with queues of over 100m on both the Anzac Parade south and north legs. Certain legs of the intersection were found to be busy prior to the events, particularly the right turn from Anzac Parade into Lang Road which people use to access the event day car parks for the SFS.

On standard weekdays the performance of these intersections can be significantly influenced by traffic conditions at downstream and upstream intersections – particularly the Alison Road / Anzac Parade intersection. The modelled queue length on a normal weekday for Anzac Parade (northern leg) was found to be over 300m which is fairly typical for the area.

## A1.9 Servicing

Service vehicles currently access the site using Paddington Lane on the eastern side of the stadium. Service vehicles are not permitted during events. No vehicles are permitted to access the laneway during events except VIP vehicles, team buses emergency services.

### A1.10 Point to point transport

Pre-event set down spaces for taxis and private vehicles are currently provided in the north and south, on the eastern side of Driver Avenue. These areas are monitored by event staff to ensure vehicles keep moving. Post-event vehicles that are picking up passengers are not allowed to enter Driver Avenue, this is to improve pedestrian safety and assist in clearing the car park. The only dedicated post event private vehicle pick-up area is on Errol Flynn Avenue adjacent to the Entertainment Quarter, however these vehicles may get caught in congestion due to vehicle existing car parks. Informal private vehicle pick-up occurs on the southern side of Moore Park Road.



Figure 55 Point to point locations

## A1.11 Parking

Currently there are approximately 5,450 car parking spaces in the precinct for events days. A summary of car parking facilities at the SFS is shown in Table 18 and Figure 56.

Car Park Name	Approx. No. of Spaces	Entrance	Event Day Only/ Permanent	Management
MP1	600 public spaces	Driver Avenue	Permanent	SCG Trust
EP2 (Kippax)	1000	Driver Avenue	Event day only	Centennial Park and Moore Park Trust
EP3 (Showground)	1100	Driver Avenue	Event day only	Centennial Park and Moore Park Trust
Entertainment Quarter carpark	2,000	Lang Road	Permanent	Entertainment Quarter
Sydney Boys and Sydney Girls High School	750	Cleveland Street	Selected events	Sydney Boys and Sydney Girls High School

Table 18 Car parking facilities at Sydney Football Stadium



Figure 56 Car parking locations

## A1.12 Precinct coordination

Given the number of stakeholders with an interest in the Moore Park precinct, the Moore Park Transport Working Group was established to better coordinate transport activities in the precinct. This group includes representatives of the following organisations:

- Transport for NSW (Sydney Coordination Office)
- Roads and Maritime
- SCG Trust
- Australian Turf Club
- City of Sydney Council

# Appendix B

Green Travel Plan

## **B1** Introduction

Arup have been appointed by Infrastructure NSW to develop a Green Travel Plan for the redevelopment of the Sydney Football Stadium (SFS). This Green Travel Plan (the Plan) will form part of the Stage 2 Development Application (DA) which encompasses:

- Detailed design; and
- Construction and operation of the stadium and supporting business, retail and functional uses.

The objective of the Plan is to develop a set of practical measures and travel initiatives to reduce the impact of travel on the environment. The Plan will focus on minimising the impact of events on the local and wider transport network and encourages those accessing SFS to do so by sustainable modes of transport, thereby reducing car dependency of spectators and staff travelling to the site.

## **B2** Site Assessment – Transport Facilities

### **B2.1** Walking Network

There is an extensive pedestrian network which connects the stadium to its surroundings. This network supports walking as a transport mode accessing the stadium, whether it is the whole trip being made by foot or it is the final leg of the journey from another transport mode. The pedestrian experience varies greatly across the precinct. Terrain surrounding the SFS is relatively flat to the north, east and south however approaching the stadium from the west it is relatively steep.

A popular way of travelling to the SFS is walking from the west from Central Station through Surry Hills. Pedestrians use several streets in Surry Hills to get to the stadium including:

- Foveaux Street and Fitzroy Street (~1.5km walk)
- Cooper Street and Arthur Street (~1.8km walk)
- Devonshire Street and Parkham Street (~ 1.8km walk)
- Elizabeth Street and Cleveland Street (~2.4km walk)

The key pedestrian routes to the SFS are highlighted in Figure 57



Figure 57 Key walking routes

Currently the highest volumes of pedestrians are seen along Foveaux Street and Fitzroy Street, which is perceived by most people to be the quickest and most direct route. There are also a number of activated street frontages along this route, with people commonly stopping at venues on their way to or from events. Currently wayfinding signage directs people walking to Central via this route, with an example shown in Figure 58.

The walking experience along this route however is not ideal due to the narrow footpaths in certain locations, high passing traffic flows as well as the crossings of major roads required of South Dowling Street and Anzac Parade. Further, this route directs people to 'Drivers Triangle' (intersection of Moore Park Road / Anzac Parade / Flinders Street) which is a major source of pedestrian and vehicle conflicts due to the lack of crossing facilities and minimal footpath space for the high volumes of pedestrians.



Figure 58 Existing wayfinding signage

The pedestrian route via Devonshire Street is not currently heavily utilised due to the ongoing construction for the Sydney Light Rail project. There is also limited wayfinding, lighting and signage in the surrounding streets along this route, particularly in Moore Park West. Once completed, the route via Devonshire Street will be attractive to more people given the low traffic volumes, improved legibility due to the introduction of the light rail and grade separated pedestrian crossings of South Dowling Street and Anzac Parade (via the Albert Tibby Cotter Bridge). Devonshire Street would be the easiest walking route and was the key walking route during the 2000 Sydney Olympic Games.

The pedestrian experience through currently Moore Park East currently is poor due to limited lighting and poorly defined footpaths.

The footpaths on the south west side of the stadium are mostly wide shared paths through parklands and open space which creates a pleasant pedestrian environment. There is a shared path along Anzac Parade which provides access for a number of people accessing the stadium.

## **B2.2** Cycling Network

The SFS sits within an extensive regional and local bicycle network. Figure 59 highlights cycle network and parking surrounding the SFS, and includes the following facilities:

- On-road bicycle lane provided on each side of Moore Park Road, providing a connection up to Oxford Street in Paddington.
- An off-road shared path along Anzac Parade which provides a key connection to the precinct from both the Sydney CBD and the south-east.
- An off-road shared path on the southern side of Lang Road, providing a connection into Centennial Park.
- An off-road shared path on the southern side of Cleveland Street, which provides a connection across South Dowling Street into Surry Hills and Redfern.
- An off-road shared path on the southern side of Fitzroy Street, providing a connection from Surry Hills.
- An on-road cycle lane on Greens Road, providing a connection from the SFS through to Paddington and Darlinghurst.



Figure 59 Existing cycling routes

There are a number of bicycle parking facilities in close proximity to the SFS which are used by people attending events or using Moore Park. These are provided in close proximity to the entry points, with an example shown in Figure 60.



Figure 60 Existing bicycle parking

## **B2.3** Public Transport Network

### **B2.3.1** Rail

Central railway station is the closest station to the stadium, with pedestrian connections previously described in section 3.5. Sydney Trains often provides additional services, particularly for intercity Services, for major events at Moore Park. When there is scheduled track work that impact services in the CBD, TfNSW operates additional bus services from Moore Park to locations such as Wynyard or rail replacement buses.

### **B2.3.2** Bus and Coach

The SFS is serviced by both regular buses routes and special event buses, both operated by TfNSW. Key bus stops for SFS patrons are located along Anzac Parade, Lang Road and Oxford Street and the bus station at Moore Park East is for event shuttles. Bus routes servicing the station are described in the sections below.

#### **TfNSW** services

Bus stops along Anzac Parade are serviced by bus routes travelling between the Sydney CBD, Surry Hills and the eastern suburbs. Many of these routes are serviced by a bus only road that runs adjacent to Anzac Parade

Bus stops along Oxford Street are serviced by bus routes travelling between the city, Chatswood, Marrickville, Rozelle to Bondi Junction. These routes are illustrated in Figure 61, and typically run at frequencies of between 5 and 30 minutes on weekdays.



Figure 61 Existing bus routes

#### **Event day services**

Event shuttle bus services are a popular method of travelling to the station. The event bus services operate by linking patrons to the wider Sydney public transport network – in particular Central Station. Event buses use the Moore Park bus loop to pick up and drop off. The bus loop has a turnaround facility and has the capacity to host 26 buses at one time. It is anticipated that this service will continue to operate once the light rail is completed however with less frequency.

Depending on the event and geographic spread of the crowd (e.g. to the Northern Beaches or Sutherland Shire), event buses are also operated as charter services paid for by various codes. Route 1 shuttle operates between Central Station (departing Eddy Avenue) and Moore Park. After the event these shuttle services run for approximately one hour. The route runs from Central Station up Albion Street and into Anzac Parade. On departures Fitzroy Street and Foveaux Street is used to travel back to Central Station, as shown in Figure 62.

#### Coaches

Coaches currently use Moore Park Road and the southern end of Driver Avenue on event days to drop off and pick up passengers.



Figure 62 Event bus shuttle route

## **B2.4** Disabled Access

Facilities to support vulnerable users in accessing the sporting grounds include:

- Designated seating at every stand
- Provision of sufficient lifts
- Accessible toilet facilities for disabled employees/ spectators and those with reduced mobility

The SCG Trust has committed to supporting improved disabled access to the grounds by developing a **Disability Inclusion Action Plan (2015 – 2019)** which was prepared in accordance with the *Disability Inclusion Act 2014* and the New South Wales (NSW) Government's *Disability Inclusion Action Planning Guidelines*.

The proposed development will include provisions for disabled access in line with relevant policies. This includes but not limited to the *Disability Inclusion Act 2014, Commonwealth Disability Discrimination Act 1993* and *NSW Anti-Discrimination Act 1977*.

## **B3** Travel Plan Aims, Objectives and Targets

### **B3.1** Aims of the travel plan

The overarching aims of the stadium travel plan are to:

- Positively influence the travel behaviour of users of the venue by promoting alternative travel modes to car;
- Encourage travel by cycle, on foot and by public transport by highlighting accessibility and availability;
- Promote healthy lifestyles and a sustainable, vibrant place in which to visit and work; and
- Minimise the number of single-occupancy car trips generated by the development.

### **B3.2** Objectives of the travel plan

The objectives to be contained in the Travel Plan must be "SMART objectives"; namely:

- Specific Objectives should specify what the operator wants to achieve.
- Measurable The operator should be able to measure whether these objectives are being met or not.
- Achievable Are the objectives the operator has set achievable and attainable?
- Realistic Can the operator realistically achieve the objectives with the resources available?
- Time based When would the operator want to achieve the set objectives?

The Stadium Travel Plan responds to these objectives by:

- Encouraging alternative travel modes to the car accessible and user friendly, to encourage increased public transport usage;
- Reducing the environmental impact associated with vehicle movements by raising travel awareness and encouraging travel by more sustainable transport modes, to reduce private car usage;
- Connecting the venue to the surrounding community by the strong promotion of walking and cycling, thus minimising the impact on the adjacent road network;
- Improving health and wellbeing;
- Promoting public transport connections in the area including bus services, heavy rail connections at Central Station and the future Sydney Light Rail service;

In order to achieve these objectives, this Travel Plan will outline a number of SMART measures to encourage the use of more sustainable means of transport.

Critical to the success of any Travel Plan is the ability to monitor the success of the proposed measures. In order for the success of the Stadium Travel Plan to be measured, it is necessary to set a number of targets which can be monitored over time. Targets have been set considering the expected number and mode split of Stadium staff and spectators. This information is presented in the next section.

## **B4** Implementation and Management

As the Stadium operator, the Sydney Cricket Ground Trust (SCG Trust) will maintain overall responsibility for the Plan. A staff member of the SCG Trust will be responsible for the implementation of the plan, including:

- Communicating the travel plan to stakeholders;
- Promote awareness of the plan and associated initiatives;
- Providing travel information for employees and visitors and act as an example to both staff and visitors;
- Developing and disseminating appropriate travel plan marketing information, and to ensure that all relevant and up to date material is provided on the SCG Trust website;
- To liaise with other venues and Government agencies to develop a collaborative approach to Travel Plan initiatives;
- To evaluate the benefit of the proposed measures to identify any changes required to the Travel Plan; and
- Overseeing the implementation and effectiveness of the Plan

In order to secure a successful Travel Plan, the SCG Trust will continue to engage with key transport agencies and stakeholders such as Transport for NSW, City of Sydney Council and the Centennial Park and Moore Park Trust. This will assist in designing and operating services which best support the needs to the workers and visitors, and therefore promoting high levels of sustainable transport modes.

The Plan is a 'living' document, so measures excluded at this time could be reconsidered or reintroduced at any time in the future, as the venue evolves. It is recognised that travel needs, and patterns will change, and new measures will become available. The Plan will be fully reviewed to ensure that the objectives are being met.

## **B5 Proposed Measures**

This section details measures that can be implemented to enhance and reinforce the measures already in place at the Stadium.

Table 19 lists individual measures, but it should be stressed that implementation of single measures or even a number of measures will not be as effective as a package of measures. The measures listed are not exhaustive and may change with time, and as a living document the Travel Plan will require the periodic updating of the list of measures.

Measure	Notes	Relevant	Audier	Audience		
		Transport Mode	Staff	Spectators		
Staff cycle advice	Advice on cycling routes and cycling matters.	Cycling/ Walking	~	×		
Safety training	Cycle safety training courses (provided by others) for staff to improve cycling confidence.	Cycling/ Walking	~	×		
Staff induction	All event day staff members to be made aware of the travel plan as part of their induction process, including a tour of end of trip facilities on site and available non-car travel options	All modes	<b>~</b>	×		
End of trip facilities	Provision of end of trip facilities for staff (not spectators).	Cycling/ Walking	✓	×		
Bicycle parking	On site cycle parking, the use of these spaces will be monitored and requirements reviewed based on their usage.	Cycling/ Walking	✓	✓		
Wayfinding	Provision of improved static wayfinding signage in the Moore Park precinct to support pedestrian and cyclist movements to/from public transport stops.	Cycling/ Walking	<b>√</b>	<b>√</b>		
Real time information	Provide information on public transport journey times to the SFS via links to existing journey planning websites.	Public Transport	✓	✓		
Shift working	Flexible start and finish times for staff, to allow them to take advantage of off-peak fares and encourage public transport use.	Public Transport	<b>√</b>	×		
Information on website	Information on public transport timetables, pedestrian and cycle routes and facilities. Advertise the parking limitations and restrictions.	All modes	<b>√</b>	~		
EV charging points	Provide charging points for electric vehicles within MP1 car park	Private vehicle	✓	~		
Travel Plan Induction	Provide all new members of staff with details of the Travel Plan aims and objectives and information on sustainable ways to travel to work.	All modes	<b>√</b>	×		
Spectator Information	Work with ticketing agencies to provide travel information to spectators at point of ticket purchase. Travel information could be provided by email by the ticketing agency following the purchase of match day tickets	All modes	×	✓		
Integrated ticketing	Work with TfNSW who are leading integrated ticketing for events	All modes	~	~		

Table 19 Proposed travel plan measures

## **B6 Overflow parking on surrounding streets**

In accordance with the SEARs, mapping has been undertaken which identifies potential overflow parking impacts on surrounding suburbs and areas including Centennial Park, parts of Kensington and northern parts of Randwick during a major event. This is shown in Figure 63.

This mapping recognises that no parking restrictions are currently in place on these streets at certain times of the day – particularly after 6pm when most events are held at the SFS. Any future changes to parking restrictions would be at the discretion of the relevant local Council.

It should be recognised that the proposed redevelopment of the SFS would not introduce additional parking demands on these identified streets compared to that currently experienced associated with events at the SCG or when the SFS was previously in operation.



Figure 63 Overflow parking on surrounding streets

## **B7** Monitoring and Review

It is recommended that detailed monitoring of initial events at the new SFS be undertaken at to review the appropriateness of the measures contained in this document. This monitoring could include but may not be limited to:

- Collecting data on employee travel patterns for journeys to work (through surveys or analysing journey to work or Opal data)
- Visitor travel patterns via interview surveys conducted prior the start of events. This would allow the SCG Trust to monitor the travel patterns of their staff and visitors on an ongoing basis.
- Review the demand for on-site car parking for different events based on entry and exit data from the various car parks in the precinct
- Undertake pedestrian counts along key walking routes (e.g. Devonshire Street) to review the number of people walking to events
- Review the number of people using public transport in the area through a review of Opal patronage data
- Demand for bicycle parking facilities.

# Appendix C

Pedestrian Route Capacity Assessment

Mode	Route	Street	Footpath Width (m)	Pedestrian Capacity Per Hour	Pedestrian Demand (95,000 double header)	Demand / Capacity	
		Foveaux Street (South)	3.5	16,800	10,355		0.62
	Central Station via Foveaux St &	Fitzroy Street (South)	3.1	14,880	10,355		0.70
	Fitzroy St	Pathway adjacent to War Memorial	3.5	16,800	10,355		0.62
		Moore Park Road, west of Driver Avenue) (South)	3.5	16,800	10,355		0.62
		Driver Avenue (East)	4.5	21,600	10,355		0.48
Train	Central Station via Devonshire St, New LR bridge & Tobby	Devonshire Street (North)	3.0	14,400	5,126		0.36
	Cotter Bridge	Devonshire Street (South)	4.0	19,200	4,194		0.22
		Light Rail Bridge Over South Dowling Street (North only)	4.0		9,320		0.49
		Pathway leading up to Tibby Cotter Bridge	4.5	,	9,320		0.43
	Kings Cross via Greens Road,	Greens Road (East)	1.7	,	1,036		0.13
	Oxford St, Victoria St	Greens Road (West)	2.2	10,560	1,036		0.10
		Greens Road (West)	2.2	10,560	380		0.04
	Oxford Street via Greens Road	Moore Park Road, west of Driver Avenue) (South)	3.5	16,800	380		0.02
		Driver Avenue (East)	4.5	21,600	380		0.02
	Oxford Street via Oatley Road	Oatley Road (East)	3.2	15,360	1,034		0.07
Bus	Oxford Street via Gatley Road	Oatley Road (West)	2.8	13,440	258		0.02
Dus	Oxford Street via Regent Street Anzac Parade South Stops	Regent Street (East)	2.7	12,960	114		0.01
		Regent Street (West)	2.5	12,000	321		0.03
		Anzac Parade (East)	3.0	14,400	760		0.05
	Anzae Fundue South Stops	Anzac Parade (West)	3.0	,	152		0.01
	Bus loop & north stop	Pathway leading up to Tibby Cotter Bridge	4.5	21,600	4,788		0.22
Light Rail	LR Stop	Pathway leading up to light rail stop	6.0	28,800	12,825		0.45
		Anzac Parade (East)	3.0	14,400	1,406		0.10
		Anzac Parade (West)	3.0	14,400	527		0.04
		Flinders Street (East)	2.8	13,440	2,109		0.16
		Moore Park Road (east of Driver Avenue) (South)	3.3	15,840	1,406		0.09
		Moore Park Road, west of Driver Avenue) (South)	3.5	16,800	1,582		0.09
		Moore Park Road, east of Paddington Lane (South)	2.9	13,920	1,318		0.09
		Foveaux Street (South)	3.5	16,800	1,582		0.09
		Fitzroy Street (South)	3.1	14,880	1,582		0.11
Walk Only	1	Greens Road (West)	2.2	10,560	1,055		0.10
		Oatley Road (East)	3.2	15,360	879		0.06
		Oatley Road (West)	2.8	13,440	703		0.05
		Regent Street (East)	2.7	12,960	439		0.03
		Regent Street (West)	2.5	12,000	527		0.04
		Devonshire Street (North)	3.0	14,400	527		0.04
		Devonshire Street (South)	4.0	19,200	527		0.03
		Lang Road (south)	4.0	19,200	527		0.03
		Pathway leading up to Tibby Cotter Bridge	4.5	21,600	1,230		0.06

#### Combined pedestrian demands by street

Mode	Route	Street	Footpath Width (m)	Pedestrian Capacity Per Hour	Pedestrian Demand (95,000 double header)	Demand / Capacity
		Foveaux Street (South)	3.5	16,800	11,937	0.71
		Fitzroy Street (South)	3.1	14,880	11,937	0.80
		Pathway adjacent to War Memorial	3.5	16,800	11,937	0.71
		Moore Park Road, west of Driver Avenue) (South)	3.5	16,800	12,317	0.73
		Moore Park Road (east of Driver Avenue) (South)	3.3	15,840	1,406	0.09
		Moore Park Road, east of Paddington Lane (South)	2.9	13,920	1,318	0.09
		Devonshire Street (North)	3	14,400	5,653	0.39
		Devonshire Street (South)	4	19,200	4,721	0.25
		Light Rail Bridge Over South Dowling Street (North only)	4	19,200	9,320	0.49
		Pathway leading up to Tibby Cotter Bridge	4.5	21,600	15,338	0.71
		Greens Road (East)	1.7	8,160	1,036	0.13
		Greens Road (West)	2.2	10,560	2,470	0.23
		Oatley Road (East)	3.2	15,360	1,912	0.12
		Oatley Road (West)	2.8	13,440	961	0.07
		Regent Street (East)	2.7	12,960	553	0.04
		Regent Street (West)	2.5	12,000	848	0.07
		Driver Avenue (East)	4.5	21,600	10,735	0.50
		Anzac Parade (East)	3	14,400	2,166	0.15
		Anzac Parade (West)	3	14,400	679	0.05
		Flinders Street (East)	2.8	13,440	2,109	0.16
		Pathway leading up to light rail stop	e	28,800	12,825	0.45