

Meadowbank Education and Employment Precinct Schools Project Travel Plan

SSD 18_9343

**Prepared by GTA Consultants
For School Infrastructure NSW
28th February 2020**



Meadowbank Education and Employment Precinct Schools Project

2 Rhodes Street, Meadowbank School Travel Plan

Client: Woods Bagot

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1. INTRODUCTION

01

1.1. Overview

This School Travel Plan has been prepared by GTA Consultants (GTA) on behalf of the NSW Department of Education and School Infrastructure NSW (the Applicant). It accompanies an Environmental Impact Statement (EIS) in support of State Significant Development Application (SSD 18_9343) for the new Meadowbank Education and Employment Precinct Schools Project (hereafter referred to as MEEPSP) at 2 Rhodes Street, Meadowbank (the site).

MEEPSP will cater for 1,000 primary school students and 1,620 high school students. The proposal seeks consent for:

- A multi-level, multi-purpose, integrated school building with a primary school wing and high school wing. The school building is connected by a centralised library that is embedded into the landscape. The school building contains:
 - collaborative general and specialist learning hubs, with a combination of enclosed and open spaces
 - adaptable classroom home bases
 - four level central library, with primary school library located on ground floor and high school library on levels 1 to 3
 - laboratories and workshops
 - staff workplaces
 - canteens
 - indoor gymnasium
 - multipurpose communal hall
 - outdoor learning, play and recreational areas (both covered and uncovered).
- Associated site landscaping and public domain improvements.
- An on-site car park for 60 parking spaces.
- Construction of ancillary infrastructure and utilities as required.

1.2. Purpose of this report

This School Travel Plan responds to the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning and Environment (DPE), which requests:

"Details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace travel plan) and the provision of facilities to increase the non-car mode share for travel to and from the site."

The School Travel Plan is a way in which the proposed schools are able to manage the transport needs of staff, students and parents, combining the requirements for a Green Travel Plan (assumed to be aimed at students and parents) and Workplace Travel Plan (aimed at staff). The aim of the plan is to reduce the environmental impact of travel to/ from and in association with the schools' operation. In essence, the plan encourages more efficient use of motor vehicles as well as alternatives to the single occupant motor car.

The plan comprises a list of strategies aimed at encouraging walking, cycling, public transport and car-pooling for travel to and from the schools and a shift away from the reliance on single occupant vehicle travel.

The remainder of this report is structured as follows:

- **Section 2** provides an overview of the objectives of the School Travel Plan.
- **Section 3** presents the existing travel patterns of the surrounding area and proposed car parking provision for the development.
- **Section 4** provides an overview of the mode share targets for the development.
- **Section 5** provides a list of both staff and student targeted actions to reach the mode share targets.
- **Section 6** provides methods of monitoring and reviewing progress with reach the mode share targets.

2. OBJECTIVES

02

2.1. Overview

Transport is a necessary part of our daily activities, which has effects that can be managed. The transport sector is one of the fastest growing emissions sectors in Australia and therefore a travel plan provides an opportunity for reducing emissions and reducing traffic congestion. As well as delivering better environmental outcomes, providing a range of travel choices with a focus on walking, cycling and public transport will have major public health benefits and will ensure healthy and prosperous communities.

2.2. What is a Travel Plan?

A Travel Plan is a package of measures aimed at promoting and encouraging sustainable travel and reducing reliance on the private car. The purpose of a Travel Plan is not to be 'anti-car', but to make apparent, encourage and support broader community expectations for carrying out their daily business in a more sustainable way. Travel Plans can provide both:

- measures which encourage reduced car use (disincentives or 'sticks')
- measures which encourage or support sustainable travel (also known as active transport), reduce the need to travel or make travelling more efficient (incentives or 'carrots').

Active transport relates to physical activity undertaken as a means of transport. It includes travel by foot, bicycle and other non-motorised vehicles. Use of public transport is also included in the definition as it often involves walking or cycling as an access or egress mode and promotes relatively sustainable options.

The School Travel Plan would promote the use of transport, other than the private car, for choice of travel to and from the site, which is more sustainable and environmentally friendly. Ultimately however, end users will choose their most suitable means of transport.

This School Travel Plan in this instance is also aided by the high level of public transport services and accessibility available to/from the site.

2.3. Walk Score and Transit Score

A walk score and transit score provide an assessment of how accessible a development is to public transport, parks, restaurants, entertainment centres and schools, that is, in terms of walking distance. A higher walk score and transit score correlates to a reduced need for a car.

The walk score and transit score are provided by [walkscore.com](https://www.walkscore.com/) (<https://www.walkscore.com/>). Whilst there is no official recognition of the walk score, transit score or bike score by any transportation authority, the score provides a broad indicative insight into how accessible an area is for people travelling without a car. The score lies on a scale between 0 and 100. A description of each of the scores is provided in Table 2.1.

OBJECTIVES

Table 2.1: Walk score and transit score

Score	Walk score meaning	Transit score meaning
90 – 100	Walker's Paradise Daily errands do not require a car	Rider's Paradise World-class public transportation
70 – 89	Very Walkable Most errands can be accomplished on foot	Excellent Transit Transport is convenient for most trips
50 – 69	Somewhat Walkable Some errands can be accomplished on foot	Good Transit Many nearby public transportation options
25 – 49	Car-Dependent Most errands require a car	Some Transit A few nearby public transportation options
0 – 24	Car-Dependent Almost all errands require a car	Minimal Transit It is possible to get on a bus

Table 2.2 shows the outputs for the suburbs within a two-kilometre radius of the site and the site itself at 2 Rhodes Street, Meadowbank.

Table 2.2: Walk score outputs

Type	Location	Walk Score	Transit Score
Suburb	Meadowbank	85	NA
	West Ryde	75	NA
	Melrose Park	51	NA
	Denistone	66	NA
	Putney	65	NA
Site	2 Rhodes Street	92	61

Based on the Walk score results, Meadowbank is considered very walkable with the proposed development site considered within the walker's paradise range, with good transit.

3. BACKGROUND

03

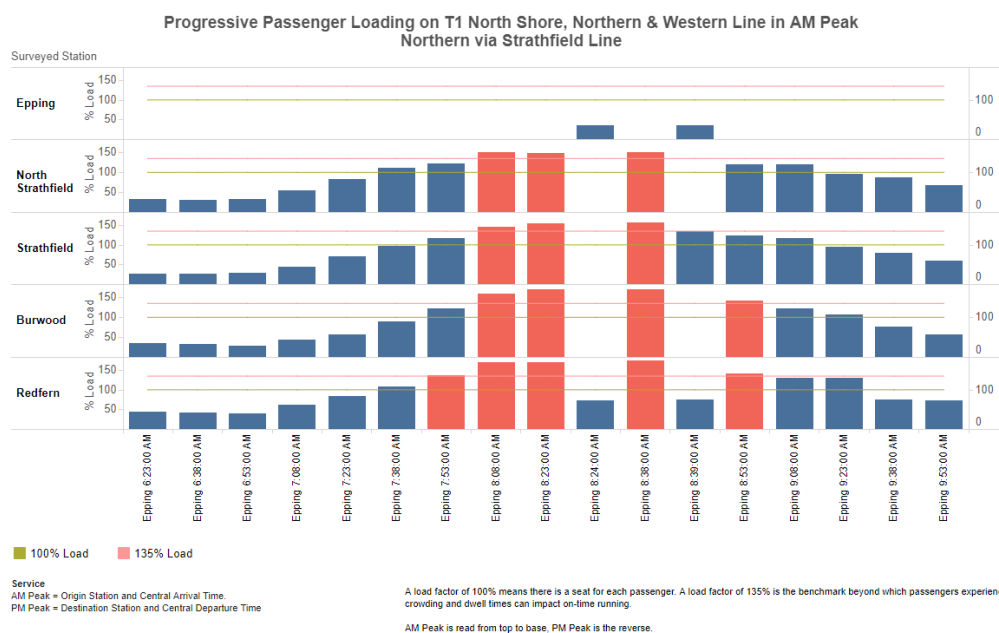
3.1. Existing Transport Infrastructure

3.1.1. Train Services

Meadowbank Railway Station and West Ryde Station are located around 700 metres south and 750 metres north from the proposed development site, respectively. Both Meadowbank and West Ryde stations are on the T1 Northern Line, with services running from Epping to Central every 30 minutes.

TfNSW has published train load data by line during the AM and PM peak periods from March 2016 surveys. Figure 3.1 illustrates the AM peak period loading, which indicates the trains passing through Meadowbank Station are exceeding capacity between 8am and 9am.

Figure 3.1: Train Loads Survey for T1 Line



Source: <https://www.transport.nsw.gov.au/data-and-research/passenger-travel/train-patronage/train-loads/train-loads-by-line> (access 13 July 2018)

3.1.2. Bus Services

Bus route 507 operates near the site with the nearest stop located at Meadowbank Railway Station. Bus routes 520, 524, 534 and M52 operate along Victoria Road.

Table 3.1: Bus service frequency¹

Bus route number	Description	AM/ PM peak frequency	Off-peak frequency
507	Macquarie University to City Circular Quay via Putney	30 minutes/ 20 minutes	60 minutes
520	Parramatta to City Circular Quay via West Ryde	30 minutes/ 60 minutes	Infrequent
524	Ryde to Parramatta via West Ryde	30 minutes/ 30 minutes	60 minutes
534	Ryde to Chatswood via West Ryde	30 minutes/ 30 minutes	30 minutes
M52	Parramatta to City Circular Quay (limited stops)	12 minutes/ 10 minutes	15 minutes

Note:

1. Valid from 23 July 2018, sourced from <https://transportnsw.info/routes/bus>, accessed 19 July 2018.

3.1.3. School Student Transport Scheme

The School Student Transport Scheme (SSTS) provides eligible school students with free or subsidised travel from home to school. The scheme includes:

- Free travel to and from home and school on approved train, bus, ferry and light rail services during school term.
- Discounted travel on buses between home and school with a school term bus pass.
- Free travel on NSW TrainLink regional services and long-distance coach services for boarding school students.
- Subsidised travel to and from school in private vehicles in areas where there is no public transport available.

Students with a disability who are unable to travel to and from school under the SSTS may be eligible for assistance under the DoE Assisted School Travel Program.

3.1.4. Pedestrian Facilities

Pedestrian footpaths are generally provided along all the roads surrounding the site. Footpaths are generally concrete paths with a width of 1.2 metres. The on-street pedestrian link to Meadowbank Station is along Rhodes Street, Macpherson Street, See Street and Constitution Road. There is no requirement for pedestrians to cross roads along this route to access the station.

There is also an existing pedestrian through the TAFE campus between Meadowbank Station and Rhodes Street, which can facilitate access for schools' staff and students.

Safe crossing points in vicinity of the site include the following pedestrian crossings:

- North eastern, north western and south western legs of the Victoria Road/ Hermitage Road intersection (signalised)
- North eastern, south eastern and south western legs of the Victoria Road/ Bowden Street intersection (signalised).

3.1.5. Cyclist Facilities

There are limited cyclist facilities located within the transport network surrounding the site.

3.2. Existing Transport Use in Surrounding Area

Journey to Work (JTW) data provides the most robust picture of existing travel patterns to and from the local area. The smallest geographical area for which JTW data is available is known as a Travel Zone (TZ).

The proposed MEEPSP will be located within TZ 1589 as shown in Figure 3.2, with the JTW data available for this TZ corresponding to the 2011 census. This data has been analysed to better understand the travel mode choice trend over time. The 2011 census data provides a good indication of current mode of travel to work for people employed in the surrounding area. The results of this analysis are summarised in Table 3.2.

In addition, ABS 2016 destination zone data around Meadowbank Station (which includes the vehicle-dominated industrial uses) shows that 69 per cent of local workers travel by car.

Figure 3.2: TZ 1589



Base image source: Transport for NSW Travel Zone Explorer, accessed 10 August 2018

Table 3.2: 2011 census JTW data (TZ 1589)

Mode	2011 Census
Vehicle driver	67%
Vehicle passenger	4%
Train	15%
Bus	1%
Walked only	3%
Mode not stated	2%
Worked at home or did not go to work	8%
Total	100%

Data source: Transport for NSW Open Data Hub

3.3. Travel Mode Survey Results

Mode share surveys were undertaken on 6 August 2018 at the existing Marsden High and Meadowbank Public schools to understand how the existing staff and students travel to the schools. The survey results are summarised in Table 3.3.

Table 3.3: Existing school mode share

Mode	Staff Mode share	Secondary student mode share	Primary student mode share
Car	75%	33%	40%
School Bus	0%	26%	0%
Public Bus	0%	2%	0%
Train	10%	3%	0%
Walk	15%	22%	60%
Cycling	0%	14%	0%
Total	100%	100%	100%

As shown in Table 3.3, the primary school experiences are a higher proportion of private vehicle use corresponding to more parents dropping off children, whereas the high school has a higher proportion of students catching public transport to school. Private vehicle is the most popular travel mode for staff travelling to both schools, noting neither school is in close proximity to a railway station.

SINSW has confirmed that the existing primary school principal actively discourages student cycling due to safety concerns associated with changing construction traffic management arrangements around the school (predominantly Shepherds Bay construction works) in recent years. They also do not have adequate bicycle parking facilities.

3.4. Sustainable Transport Opportunities Assessment

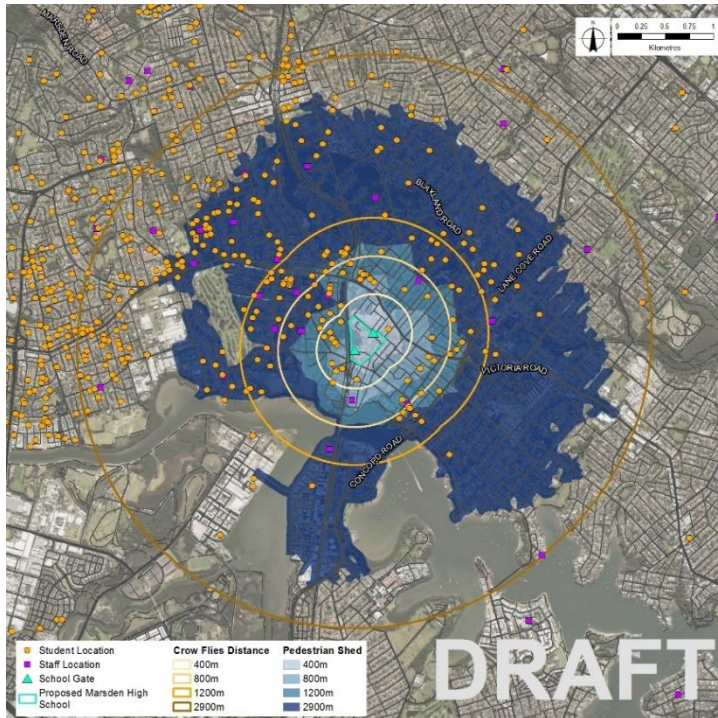
School Infrastructure NSW commissioned Frank Turquoise Group to establish a travel to school baseline and proposed policies, programs, infrastructure and monitoring to minimise the neighbourhood impacts of staff driving alone to schools and the peak period traffic congestion during school set-down and pick-up times. This work also included developing a sustainable transport calculator for use with schools across the state. A Transport Assessment and School Travel Plan report was prepared for the Meadowbank Education Precinct (now Meadowbank Education and Employment Precinct) as a pilot for this body of work. A detailed analysis of sustainable transport opportunities for the existing Meadowbank Public and Marsden High staff and student cohort was completed by Frank Turquoise Group, with the following key findings:

- 20 per cent of staff, 28 per cent of secondary school students and 64 per cent of primary school students could potentially walk or ride their bikes to school.
- 27.8 per cent of staff and 52.6 per cent of students live within an 800-metre catchment of a bus route servicing proposed schools and can potentially catch a bus to reach the schools.
- 10.4 per cent of staff and 16.9 per cent of students live within an 800-metre catchment of a T9 Northern Line train station and can potentially catch a train to reach the schools.

A catchment analysis was completed for the high school, identifying the 5, 10 and 15 minute walk (400m, 800m and 1.2 kilometres) and the 10, 15 and 20 minute bicycle ride (2.4, 3.6 and 4.8 kilometres) catchments. The outer orange “crow flies” circle and dark blue shade is the actual high school exclusion zone for the School Student Transport Scheme (SSTS) of 2.9 kilometres. The same was completed for the primary school catchment, with the dark blue shade representing the exclusion zone for the SSTS (2.3 kilometres).

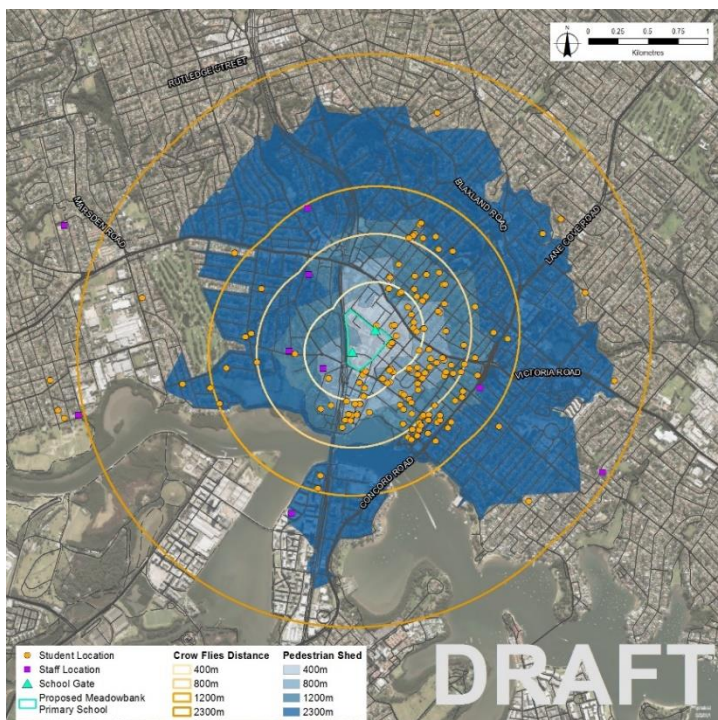
These catchments for the secondary school and primary school are shown in Figure 3.3 and Figure 3.4 respectively.

Figure 3.3: Secondary school catchment



Source: Meadowbank Education Precinct Transport Assessment and School Travel Plan (Frank Turquoise Group, 2019)

Figure 3.4: Primary school catchment



Source: Meadowbank Education Precinct Transport Assessment and School Travel Plan (Frank Turquoise Group, 2019)

3.5. Parking Provision

The car parking requirements for different development types are set out in the City of Ryde Council DCP 2014. A review of the car parking rates and the floor area schedule results in a DCP parking requirement for the proposed development as summarised in Table 3.4.

Table 3.4: DCP Car parking requirements

Description	Use	Size	DCP parking rate	DCP parking requirement
Educational Establishment – Primary and Secondary School	Primary School (2022)	44 staff	1 space per two employees	22 spaces
	Primary School (2032)	67 staff	1 space per two employees	34 spaces
	Secondary School (2022)	1,000 students	1 space per ten students over 17 years of age	15 spaces ^[1]
		100 staff	1 space per two employees	50 spaces
	Secondary School (2032)	1,620 students	1 space per ten students over 17 years of age	25 spaces ^[1]
		148 staff	1 space per two employees	74 spaces
Total 2022 parking requirement				87 spaces
Total 2032 parking requirement				133 spaces

[1] Assumption that 150 and 250 students are over the age of 17 in 2022 and 2032 respectively.

Based on the above, the proposed development is required to provide 87 car parking spaces upon opening and increasing to 133 spaces at full school capacity in circa 2032.

Considering the anticipated travel patterns detailed in Section 4.3 and the locality of the new schools adjacent to Meadowbank Station, it has been estimated that approximately 40 per cent of staff would travel to the site by car with the remaining portion travelling by either public transport or active travel modes. Based on the anticipated 144 staff at opening year and travel planning strategies that can be managed by the school, up to 60 spaces will be required. Continual improvement increased regional road network congestion and implementation of further travel planning initiatives is expected to maintain a parking demand of 60 spaces or lower once full staffing projections are reached.

The monitoring and evaluation of the proposed School Travel Plan is essential at opening year and beyond to ensure staff parking demand is accommodated within the on-site parking provision. Some of the key “Day 1” initiatives or components of the travel plan are as follows:

- Staff and student access through the TAFE to access Meadowbank station (use of existing pedestrian access as a minimum but preferably with the minor upgrade works proposed and to be completed by TAFE).
- Regular and ongoing communication with staff regarding transport policies, programs and available sustainable transport options.
- Providing and promoting (via posters, notice boards/ screens, school intranet) a transport access guide to advise staff of the surrounding public transport network, as well as walking and cycling facilities connecting with the schools.
- The Liftango carpool app to incentivise participants by allocating dedicated carpool bays to participants.

- Procedure or policy for automatic enrolment of new starters and staff seeking (free) parking access in the carpool program such that they would need to 'opt out' of the registration on Day 1 or when they start.
- Discounted GoGet hourly rate for staff choosing sustainable transport to work.
- End of trip facilities for staff who walk, run, ride a bicycle or motorcycle (changeroom/ showers and lockers).
- Bicycle parking for staff within a secure basement area.
- Motorcycle parking spaces.

It is expected that with local and state government-led regional policies and infrastructure upgrades in place to promote active and public transport, as well as greater take-up of carpooling, the car parking requirements can be maintained at the 2022 opening level of 60 spaces (i.e. further mode shift to offset growth in staff numbers). However, policies and programs that are not directly in control of school authorities are difficult to implement and the required timeframe for the realisation of these is unknown at this stage. The travel plan includes annual monitoring requirements and the schools would need to identify further sustainable travel actions and/or initiatives should the nominated targets not be achieved.

The objective of the travel plan is to achieve a continued reduction in the reliance on private car travel, with on-site car parking demands to remain static following the opening of the schools, and preferably decrease. Any reduction in car parking demand would then allow car parking to be re-purposed for further bicycle parking, end-of-trip facilities or similar.

4. POLICY AND STRATEGIC FRAMEWORK

04

4.1. Overview

Based on the transport network described in Section 3.1, this section identifies the potential travel patterns to and from the new schools. It builds on the walking and public transport networks already available around the premises, as well as the limited on-site car parking provision, identifying transport modes which may be best suited to meet the travel demand for the site. This guides the actions specified in Section 5 of this School Travel Plan, to respond to available transport infrastructure and current travel patterns in the local area.

4.2. Analysis

Scenario 1: Business as usual

If no further green travel actions are taken, it is likely that staff and students will adopt the travel patterns they currently exercise travelling to and from the school. If the rates are applied outright to the forecast staff and student number of new schools, the potential future travel demand for different modes of travel can be estimated.

Scenario 2: Wayfinding and staff/ student travel information

By targeting staff and student travel behaviour with quality information about transport options, the new schools can achieve more walking, cycling and public transport use. Providing wayfinding and public transport information to new staff and students is an opportunity to demonstrate good transport practice.

Scenario 3: Proactive Initiatives ('reach' target)

The new Meadowbank Schools could proactively pursue initiatives to accommodate pedestrians, cyclists and public transport users.

Based on the available JTW data and existing staff and student travel patterns shown in Table 3.2 and Table 3.3, respectively, along with consideration of staff and student home locations and the frequency of public transport modes available in the vicinity of the new schools, it is recommended that the following realistic 2022 reach targets be adopted for change in travel behaviour:

Table 4.1: 2022 target mode shares

Mode	Primary school students	High school students	Staff
Private vehicle	30%	23%	40%
Public transport, walking or cycling	70%	77%	60%

The likely staff travel mode splits have been developed as follows:

- Staff travel to the existing schools by car is 75 per cent.
- ABS 2016 destination zone data around Meadowbank Station (which includes the vehicle-dominated industrial uses) shows that 69 per cent of local workers travel by car. This indicates that just relocating the schools would result in at least a six per cent reduction in staff travelling by car.
- The existing walking mode share to the schools has been assumed to stay the same (15 per cent).
- Although 17 per cent of staff will be within a 10-minute bicycle catchment from the new schools, a lower mode share estimate of seven per cent has been adopted to take into consideration not all staff in close proximity will travel to/ from the schools by bicycle.
- With the new location of the schools, 55 per cent of staff will be located within an 800-metre walking catchment of direct bus and rail services.

- Assuming approximately 17 of the above 55 per cent of staff that live within an 800 metre walk to public transport choose to instead either carpool or drive alone, this equates to 60 per cent of staff travelling by sustainable modes (38 percent public transport, 15 per cent walking and 7 percent cycling) while the remaining 40 per cent of staff will travel by car.

Students attending the new schools are expected to maintain similar travel patterns to travelling to/ from the existing schools.

For high school students, a 10 per cent reduction is expected in car travel while travel by train is expected to increase by the same amount (to 13 per cent). GTA has completed analysis of existing high school student home locations and the catchment of the proposed schools. The additional analysis indicates that a similar number of high school students will be within a 20 minute walking catchment of the new school compared to within the same catchment of the existing Marsden High School, with data indicating around 8 per cent of students within this distance from the existing schools and 7 per cent within this distance from the new school location, with linked trips associated with children being dropped off at a satellite location and walking the rest of the way likely making up the remaining portion of the existing walking mode share recorded at the Marsden High School. It is also noted that the Shepherds Bay precinct (generally within a 10-minute walk) will likely be a key generator of new/ increased enrolments. Signalised pedestrian crossings are provided across Victoria Road at Hermitage Road and Bowden Street which link with existing footpath connections to the proposed schools. Most of these roads are local roads with low traffic volumes suitable for cyclists, with only students on the fringe of the 20 minute catchment interfacing with Victoria Road.

The new schools site is a similar distance away from bus stops along Victoria Road, while the location adjacent to Meadowbank Station will likely attract increased travel by train by students who currently live near the railway line (particularly the cluster of students near Eastwood and Epping) who are currently likely required to drive to the existing Marsden High School.

It is also estimated that there will be an approximately 10 per cent reduction in car travel related to the primary school, with travel by bicycle expected to increase. Detailed analysis of existing primary school student home locations indicates a similar number of primary school students living within an indicative 20 minute walking catchment of the existing Meadowbank Public School compared with the same catchment for the new primary school, with data indicating around 83 per cent of students within this distance from the existing Meadowbank Public school and 71 per cent of students within this distance from the new school. As such, it is expected that active transport to the site will remain as the most popular choice of travel. Primary school students in particular are able to cycle on footpaths, with formal bicycle paths not necessarily required. With future upgrades around the precinct proposed as part of the Meadowbank Education and Employment Precinct master plan and specifically walking and cycling routes to the east including along Thorn Street, Stone Street and Constitution Road, a 10% increase in sustainable travel is certainly achievable.

Available primary school travel mode survey data was interrogated for further evidence to support the proposed cycling mode share target and it is noted that:

- 6 per cent of students cycle to Epping Public School (2017, excludes scooters)
- 7 per cent of students cycle to St Kevin's Primary School Dee Why (2014)
- 10 per cent of students cycle to Kurnell Public School (2014).

These figures indicate that with a range of strong programs and initiatives, the 10 per cent target should be within appropriate reach. While supporting infrastructure and local traffic conditions are a factor in student cycling uptake, the level and consistency of encouragement initiatives are a stronger influence. Key elements to successful take-up of cycling at other schools has included funding an external provider who provides rider training, bicycle repair and/or cycling school bus opportunities to improve cycling confidence for students.

In order to maintain the 60 spaces in 2032, a reach target of 27 per cent of staff driving to work would be required, with the remaining 73 per cent of staff travelling by public transport, walking, cycling or carpooling with other drivers to the new schools. This is considered achievable through implementation of initiatives detailed in Section 5.

A regular travel survey would provide a base case for these assumptions and allow new Meadowbank Schools to refine these assumptions and inform programs as part of this School Travel Plan.

SINSW and GTA acknowledge that the target travel mode shares are ambitious and reflect a new, comprehensive approach from DoE and SINSW to reduce car dependence. Achieving such a significant behaviour change requires a top-down approach. The Department of Education and SINSW are committed to reducing car dependence and have taken the following steps:

- Appointment of a Sustainable Transport Technical Advisor to manage the planning and implementation of travel initiatives across schools, as well as collating data to inform the planning of new schools/ facilities and benchmarking activities
- Preparation of a transport calculator and transport study analysing depersonalised student and staff data (as a case study), with the calculator having received in principle commitment from stage government agencies including the Department of Planning and Environment, Transport for NSW and the former Roads and Maritime Services.
- Written commitment from the school directors regarding the implementation of travel initiatives, reduced on-site parking provisions and supporting systems/ processes for staff to reduce the work-related need for private car travel
- Workshops and development of a Memorandum of Understanding (MOU) between SINSW and TfNSW, which includes a more comprehensive planning and transport assessment process for new and upgraded schools, as well as progressing a range of transport programs and initiatives that will improve travel, operations and road safety for school staff and students.

It should also be noted that:

- A variety of affordable accommodation is available within a reasonable walking and cycling distance of the schools. This housing supply is increasing, with the Shepherds Bay precinct being completed (500 metres walk away) and Melrose Park commencing (2.5 kilometres away and readily accessible by bus or bicycle). Such local accommodation provides opportunities for new (and/or existing staff) to live close to the schools.
- Studies have found that 'millennials' own fewer cars than previous generations and are driving less¹ (Nicholas Klein, 2017), suggesting that a lower mode share towards private vehicle travel for younger staff is likely. While this balanced with other demographic changes such as people getting married and having children later in life (delaying the need for more complex trips that may be easier made using a private vehicle), the future staff cohort is less likely to be reliant on private car travel.
- TAFE students are young adults with similar characteristics to the current cohort of graduate teachers that will join the schools in future. The current Meadowbank TAFE student car driver mode share is around 40 per cent.
- Given the on-street car parking footprint of the adjacent existing industrial area in particular (where employees are also typically arriving at work earlier than school staff), there is a sufficiently constrained on-street car parking supply that will discourage school staff from simply seeking alternative parking locations.
- Other employment centres around Sydney have had success with car-pooling programs similar to what is proposed at the schools, including Macquarie Park which has over 2,000 people registered in the car-pooling program specific to Macquarie Park (similar to the Liftango app proposed to be used by schools' staff).

The Department of Education will be responsible for the implementation of the School Travel Plan and identifying additional initiatives if necessary in order to meet the travel mode share targets.

¹Nicholas Klein and Michael Smart. 2017. Millennials and car ownership: Less money, fewer cars
<https://www.sciencedirect.com/science/article/abs/pii/S0967070X16305571>

4.3. Target Modes

For the schools to reduce car parking demand and site generated traffic, the most achievable target modes should be addressed first. These will be transport aspects that the Department of Education has the most influence to change.

1. Increase walking, running and cycling to and from school for staff and students:
 - Promote local bicycle facilities to staff and students to encourage and facilitate an increase in cycling.
2. Increase public transport use:
 - The site is within easy walking distance to frequent bus services, and within a 10-minute walk of Meadowbank Railway Station.
 - Identify initiatives to support the use of public transport by staff and students.
3. Increase car-pooling:
 - Combined with other nearby activity and employment generators such as the TAFE NSW Meadowbank campus to set up a car-pooling system for staff.
4. Increase information available to staff and visitors:
 - An active system that encourages and facilitates walking, cycling and public transport travel would be beneficial. Sharing available information is a viable option to encourage.

Based on these targets, Section 5 identifies programs which would be considered to achieve travel behaviour through this plan. These targets are measurable, through a staff and student travel surveys. Using these metrics, the new schools can track performance against the workplace travel plan objectives; to recognise what programs are working and link program funding to results.

5. ACTIONS

05

5.1. Staff Targeted Actions

Walking

Action	Timeframe
Identify employees living near work that may be interested in walking to work	Prior to occupation and ongoing for new staff
Produce a map/ Transport Access Guide (TAG) showing safe walking routes to and from your site with times, not distances, to local facilities, such as shops and public transport stops	Prior to occupation
Provide lockers for keeping a change of clothes	Prior to occupation
Provide showers and changing room facilities	Prior to occupation
Review the condition of footpaths surrounding the schools and identify and minor safety improvements for discussion with Council	Prior to occupation
Provide new footpath along the Rhodes Street frontage	Prior to occupation
Take part in 'National Walk to Work Day'	During operation
Have some 'TravelSmart Get to Work' days encouraging staff to come by alternative modes of transport	During operation

Cycling

Action	Timeframe
Establish an internal Bicycle Users Group (BUG) that includes senior students. BUGs are formed by people who want to work together to improve facilities for cyclists and encourage cycling	During operation
Provide sufficient bicycle/ scooter parking to meet peak needs	Prior to occupation
Have good, secure bicycle parking in an easily accessible location	Prior to occupation
Ensure bicycle parking is clearly visible or provide signage to direct people to cycle bays	Prior to occupation
Provide showers and changing rooms	Prior to occupation
Provide lockers for a change of clothes	Prior to occupation
Supply a workplace toolkit consisting of puncture repair equipment, a bike pump, a spare lock and lights	During operation
Come to an arrangement with a local bicycle retailer for cheap servicing of staff/ student bikes and other incentives	During operation
Produce a map/ TAG showing more leisurely bicycle routes to the schools	Prior to occupation
Participate in annual events such as 'Ride to Work Day'	During operation
Consider providing training courses on safe riding to and from the school	During operation

Public transport

Action	Timeframe
Develop a map/ TAG showing public transport routes to the schools	Prior to occupation
Put up a notice board with leaflets and maps showing the main public transport routes to and from work	During operation
Place information on the work intranet with links to appropriate external websites e.g. https://transportnsw.info/	During operation
Provide leaflets or timetables with payslips	During operation

ACTIONS

Action	Timeframe
Provide next service departure screens for T9 rail services (and bus services if possible) in the lobby to encourage public transport use	Prior to occupation

Car-pooling

Action	Timeframe
Set up staff with the Liftango car-pool app	During operation
Allocate priority parking spaces for car-poolers	Prior to occupation

Car parking

Action	Timeframe
Identify priority users of car park e.g. people with disabilities, car-poolers, contractual requirements	Prior to occupation
Prepare a carpark management plan to address car park access and the allocation of parking spaces	Prior to occupation
Re-allocate car parking spaces for bicycle parking	During operation

5.2. Student Targeted Actions

Walking

Action	Timeframe
Produce a map/ TAG showing safe walking routes to and from your site with times, not distances, to local facilities, such as shops and public transport stops and provide in the student newsletter or school intranet	Prior to occupation
Facilitate 'walking school bus' opportunities that are run by parents/ carers	During operation
Provide lockers for keeping a change of clothes	Prior to occupation
Review the condition of footpaths surrounding the schools and identify and minor safety improvements for discussion with Council	Prior to occupation
Upgrade or provide new footpaths along the Rhodes Street frontage and along Macpherson Street to access school bus stops	Prior to occupation
Install school crossing on Rhodes Street and/or pedestrian crossing on Macpherson Street	Prior to occupation
Take part in 'Walk Safely to School Day'	During operation

Cycling

Action	Timeframe
Establish an internal BUG. BUGs are formed by people who want to work together to improve facilities for cyclists and encourage cycling	During operation
Facilitate 'cycling school bus' opportunities that are run by parents/ carers	During operation
Provide sufficient bicycle/ scooter parking to meet peak needs	Prior to occupation
Have good, secure bicycle parking in an easily accessible location	Prior to occupation
Ensure bicycle parking is clearly visible or provide signage to direct people to cycle bays	Prior to occupation
Provide showers and changing rooms	Prior to occupation
Provide lockers for a change of clothes	Prior to occupation
Produce a map/ TAG showing more leisurely bicycle routes to work	Prior to occupation

ACTIONS

Action	Timeframe
Provide training courses on safe riding to and from the school	During operation

Public transport

Action	Timeframe
Develop a map/ TAG showing public transport routes to work	Prior to occupation
Provide leaflets and maps in the school newsletter, on the school intranet or on noticeboards around the school showing the main public transport routes to and from work	During operation
Place information on the school intranet with links to appropriate external websites e.g. https://transportnsw.info/	During operation
Waive the Opal SSTS distance penalty for students with access to bus, rail and ferry options living within the 2.3km catchment for primary and 2.9km high school catchment (up to 238 students). This would require consultation with TfNSW.	Prior to occupation
Provide next service departure screens for T9 rail services (and bus services if possible) in the lobby to encourage public transport use	Prior to occupation

Car-pooling

Action	Timeframe
Encourage parents to car-pool and transport multiple students in a single car (e.g. where families live in close proximity to each other).	During operation

5.3. State and Local Government Partnership Actions

State and local government partnerships are required to resolve barriers including the fragmented footpath and bicycle networks, busy roads with limited road crossing opportunities and high volumes of construction traffic and parking with unpredictable footpath and road occupancy during school travel periods. The following sets out the required external supporting infrastructure for Meadowbank Education and Employment Precinct that need to be implemented by State and Local Government agencies. These actions do not form part of the proposed development.

Action
Provide a new footpath along the west side of Hermitage Road
Provide a shared path to West Ryde Station (RR01, Ryde Bicycle Plan)
Provide a new footpath along the south side of Victoria Road
Provide a pedestrian crossing on Bay Drive

6. MONITORING AND REVIEW

06

6.1. Review Framework

For the School Travel Plan to be effective it must be reviewed on a regular basis. It is important to ensure that the School Travel Plan is meeting its objectives and having the intended impact on car use and transport choices for the new schools' staff and students. The School Travel Plan should be reviewed on an annual basis with staff and student travel surveys. The School Travel Plan should be updated and changed to reflect changing circumstances and local context/ facilities.

6.2. Travel Survey

To monitor the School Travel Plan, a travel questionnaire should be conducted of all staff and students. An initial survey should be used to provide the baseline for travel planning programs. Subsequent survey results should be reported annually by the schools and used to inform funding allocation for successful programs/ removal of unsuccessful programs. Based on the review, the Workplace Travel Plan should then be updated as noted previously.

An example format for the staff survey is provided as follows:

Q1: What is your home post code?

Q2: Are you...

- full-time staff
- part-time staff.

Q3: How do you usually travel to work? (Select one)

- Walk/ run
- Bicycle
- Bus
- Train
- Combination bus and train
- Drive a car
- Passenger in a car
- Other (explain)_____.

Q4: What time do you usually arrive and leave work?

Q5: If you drive to work, where do you usually park?

Q6: To facilitate transport programs, may we share your contact details with a colleague that lives near you?

- Yes – I walk
 - If 'yes' please provide your email here: _____.
- Yes – I'm a cyclist
 - If 'yes' please provide your email here: _____.
- Yes – I'm a public transport passenger
 - If 'yes' please provide your email here: _____.
- No.

An example format for the staff survey is provided as follows:

Q1: What is your home post code?

Q2: How do you usually travel to school? (Select one)

- Walk/ run
- Bicycle
- Bus
- Train
- Combination bus and train
- Drive a car
- Passenger in a car
- Other (explain)_____.

Q3: What time do you usually arrive and leave school?

Q4: If you drive to the school, where do you usually park?

6.3. Review In-House Programs

The annual staff and student travel survey would assist in the review of the School Travel Plan. If required, the plan should be updated to track progress towards targeted goals.

Any feedback received from staff and students should be used to update programs as well. Sample feedback could include email responses to programs, monitoring the bicycle/ car parking spaces used, hits on a website, transport complaints and participants at events.

People in any organisation like to be a part of a successful plan. Staff and students should be kept informed of green travel achievements. This could be done by sending out email bulletins, making announcements during meetings and school assemblies or having a dedicated column within an internal newsletter.

6.4. Gaps

After the implementation of the Workplace Travel Plan, it may be that transport deficiencies are identified. Some examples may include:

- Additional bicycle space may be required as demand grows
- Additional showers and lockers as more staff walk, run or cycle to work
- Additional dedicated bicycle parking may be required at the building entries to ensure security for staff bicycles.

These issues may need to be revisited if identified as an issue during monitoring.

7. CONCLUSION

07

This report sets out a Workplace Travel Plan for staff and students at the proposed new schools to help mitigate transport-related impacts. The travel plan provides strategies that could be implemented to maximise the use of surrounding facilities or to further improve these facilities. It is a flexible document that allows for continual monitoring and review to remain effective and reflective of the changing transport needs of the site.

7.1. Recommended Internal School Activities

In conjunction with the existing travel information in Section 3.2 and recommended programs in Section 5, GTA recommends that the new schools adopt the preliminary mode share targets shown in Table 7.1.

Table 7.1: Target mode shares

Mode	Primary school students	High school students	Staff
Private vehicle	30%	23%	40%
Public transport, walking or cycling	70%	77%	60%

Conducting an initial travel survey would provide an accurate base case for these assumptions (i.e. rather than relying on census data and the current mode of travel of students at Marsden High School and Meadowbank Public School) as long as a good response rate can be achieved. Regular (annual) follow up surveys would allow the new schools to further refine these assumptions and inform programs as the School Travel Plan progresses.

The new schools should support the abovementioned targets through a clear transport policy to minimise car parking demand and traffic generation.

Following the preparation of this travel policy, it is recommended that the School Travel Plan:

- Identify a staff member to complete travel coordinator duties involved in this plan.
- Conduct an initial survey to understand travel patterns of staff and students at the and to identify those that may be interested in walking, cycling or using public transport/ car-pooling to work.
- Prepare a new staff and student starter kit including maps showing public transport routes near the schools and safe walking routes with travel time, to local facilities, such as shops, bus stops and stations.
- Provide maps, travel options, links to the <https://transportnsw.info/> website and timetables on the staff and student intranet, notice boards and school newsletter.
- Based on staff interest (from the survey):
 - match staff interested in walk-to-work and ride-to-work with buddies
 - set up a car-pooling database to match rides and passengers or promote any reliable phone apps that arise.

7.2. Recommended External Steps

Provide this School Travel Plan to the NSW Department of Education for acceptance. Acceptance would be noted through the:

- selection of an in-house travel coordinator
- adoption of the transport policies
- conducting the first staff and student travel survey
- provision of initial funding for the transport programs
- provide the adopted School Travel Plan and associated policies and programs to Transport for NSW for consideration

CONCLUSION

- adopt any recommendations by Transport for NSW
- prepare the starter kit including transport access maps
- launch the program and run the first questionnaire
- conduct a follow up questionnaire approximately six months after the initial survey.

The travel survey should be conducted annually, to track performance on the transport mode share. Sample programs which might help reach the travel target include:

- special/ subsidised bicycle purchase deals for staff at a local shop
- additional secure, weather protected bicycle parking.

