Chatswood Public School School Travel Plan

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The Transport Planning Partnership



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- B. CONSULTATION REGISTER
- C. CHATSWOOD PUBLIC SCHOOL TRAVEL ACCESS GUIDE (TAG)



1 Introduction

1.1 Scope of Works

The Transport Planning Partnership Pty Ltd (TTPP) has been engaged by School Infrastructure NSW (SINSW) to prepare a School Travel Plan for the approved upgrades to the Chatswood Public School site as detailed in the State Significant Development (SSD) application (SSD 9483).

The upgrades to Chatswood Public School represented in the approved SSD are designed to facilitate anticipated future demand for enrolment at the school along with planning for other existing and planned future schools in the surrounding locality and more broadly across the State.

Specifically, this School Travel Plan has been developed to address Condition D18 of the consent for SSD 9483 with regard to the arrangements to manage the transport demands associated with the Chatswood Public School, and the adjacent Chatswood High School.

The specific requirements of Condition D18 and how they are addressed in this School Travel plan are set out in Table 1.1.

In a general sense, this School Travel Plan has been prepared to support the upgrades and sets out measures to manage travel behaviour of students and staff in a sustainable manner.

1.2 School Operational Details

The approved upgrades to Chatswood Public School represented in the SSD application are designed to facilitate the demands for enrolment at the school.

The approved upgrades will facilitate up to 1,600 primary school students ranging between Kindergarten to Year 6.

While the Chatswood Public School will have the capacity to accommodate 1,600 students at the school, when and if this level of school population is unknown.

The hours of operation for the Chatswood Public School are as follows:

Hours of Operation (school hours): 8:30am-3:00pm

■ Before school care: 7:00am – 8:30am

After school care: 3:00pm – 6:00pm



Table 1.1: Condition D18 Requirements

Requirement	Comment	Addressed in this School Travel plan	
Prior to the commencement of operation, a School Travel (Transport) Plan (STP),	nust be submitted to the satisfaction of the Planning Secretary. The plan must:		
(a) be prepared by a suitably qualified consultant in consultation with Council and TfNSW;	TTPP staff are suitably qualified traffic and travel planners with appropriate skills and experience to prepare a School Travel plan. TTPP prepared the traffic and transport assessment as part of the SSDA process and following lodgement of the SSDA engaged with Council, TfNSW, SINSW and School staff regarding the traffic and transport arrangements for the school and development of a School Travel Plan. Additional consultation with Council and TfNSW has been undertaken in the preparation of this School Travel Plan [yet to be completed]. Details of the consultation are presented in Appendix B. CVs for the key authors of this School Travel Plan are provided in Appendix A.	Section 1.6 Appendix A – CV's Appendix B – Consultation Register	
 (b) include arrangements to promote the use of active and sustainable transport modes, including: objectives and modes share targets (i.e. Site and land use specific, measurable and achievable and timeframes for implementation); specific tools and actions to help achieve the objectives and mode share target of 16% reduction in car trips; measures to increase use of the Pacific Highway overhead bridge by staff and students including (but not limited to) installation of signage in consultation with Council and education / awareness program to promote use of the overhead bridge. details regarding the methodology and monitoring/review program to measure the effectiveness of the objectives and mode share targets, including the frequency of monitoring and the requirement for travel surveys to identify travel behaviours of users of the development. 	 i. The target for mode share reduction for private vehicle trips is provided in Section 3.1. The targets utilise the surveyed existing mode share described in Section 2.10. ii. The tools and actions to achieve mode share targets are set out in Section 3.2 – 3.5. Actions and responsibilities are set out in Section 3.6. iii. Measures to address increased use of the Pacific Hwy overbridge are specifically addressed in Section 3.2.2. iv. The review and monitoring program details are set out in Section 6. 	i. Section 2.10 & 3.1 ii. Section 3.2-3.5 iii. Section 3.2.2 iv. Section 6	
(c) include operational transport access management arrangements, including:	The transport actions to achieve mode share targets have been set out in Section 4 of this report. These actions are supported by the details to be contained in the Travel Access Guide (TAG). The TAG is	Section 4.1-4.6 Appendix C	



i. ii. iiv.	detailed pedestrian analysis including the identification of safe route options to identify the need for management measures such as staggered school start and finish times to ensure students and staff are able to access and leave the Site in a safe and efficient manner during school start and finish; the location of all car parking spaces on the school campuses and their allocation (i.e. staff, visitor, accessible, emergency, etc.); the location and operational management procedures of the drop-off and pick-up parking, including staff management/traffic controller arrangements; the location and operational management procedures for the drop-off and pick-up of students by buses and coaches including staff management/traffic controller arrangements; delivery and services vehicle and bus access and management arrangements;	provided in Appendix C. Section 6 discusses arrangements for the monitoring and maintenance of the TAG and other aspects of travel planning for the School.	
vi.	management of approved access arrangements;		
vii.	potential traffic impacts on surrounding road networks and mitigation measures to minimise impacts, including measures to mitigate queuing impacts associated with vehicles accessing drop-off and pick-up zones;		
∨iii.	car parking arrangements and management associated with the proposed use of school facilities by community members; and		
inclu	neasures to promote and support the implementation of the plan, ding financial and human resource requirements, roles and responsibilities elevant employees involved in the implementation of the plan; and	The various measures to promote and support the plan are set out in Section 3 of this report. This includes the mode targets and actions to achieve the mode targets.	Section 3.1 - 3.7
(e) a monitoring and review program.			Section 6.1 – 6.4



1.3 What is a School Travel Plan?

A School Travel Plan is a document that outlines how a school intends to make travel to and from their campus safer and more sustainable for students, families, and staff.

A School Travel Plan is a package of coordinated strategies and measures to promote and encourage active and sustainable travel.

A School Travel Plan aims to influence the way students, staff, parents and visitors travel to and from the school to deliver better environmental outcomes and provide a range of travel choices, whilst also reducing reliance on private car usage, particularly single occupancy car trips (for staff and high school students) and single passenger car trips (for students).

In its simplest form, a School Travel plan encourages use of transport modes that have low environmental impact, such as active transport modes (e.g. walking, cycling), public transport, and better management of car use.

Active transport presents a number of interrelated benefits including:

- improved health benefits
- reduced traffic congestion, noise and air pollution caused by cars
- greater social connections with communities
- cost savings to the economy and individual.

A School Travel Plan is designed to addresses site specific local traffic issues around the school, while encouraging active, safe, and sustainable travel methods, such as active transport, public transport and car-sharing.

A School Travel Plan should be designed to correlate with the school's overall aspirations and is a document that is monitored and reviewed at regular documented intervals to ensure that the measures in the plan are effectively meeting the desire goals of the plan.

1.4 School Travel Plan Process

The development and implementation process of the School Travel Plan can be summarised to be as follows:

 Understanding Existing Travel Patterns and Infrastructure: Background information is collected about the existing site, such as existing travel patterns, local public transport facilities, walking routes and cycling facilities.



- Setting Achievable Targets: With reference to the existing conditions, a range of targets should be developed to meet the aims of the plan. The targets would involve reducing private vehicle mode share and reducing the vehicle kilometres travelled.
- Developing Actions: A range of actions have been developed to facilitate meeting the targets.
- Monitoring and Revision: It is intended that this plan is reviewed and, if necessary, updated every 12 months with the targets and actions reviewed in accordance with SSD 9483 Condition F15.

1.5 Responsibilities for Implementation and Governance of the School Travel Plan

Consultation with TfNSW, has highlighted that key factor to the success of a School Travel Plan is the appointment of a Travel Plan Coordinator who will be responsible for the School Travel Plan implementation and governance.

The School Travel Plan will benefit from a strong steering group or committee created with relevant internal and external stakeholders to inform future targets and the ongoing monitoring and revision of the STP for five years post-occupancy.

The arrangements for the implementation and governance of the School Travel Plan are set out in Section 5 of this Plan.

1.6 Consultation

The preparation of this School Travel Plan has been undertaken in consultation with representatives from the following agencies:

- Chatswood Public School
- Chatswood High School
- Willoughby City Council
- Transport for NSW
- School Infrastructure NSW

Feedback obtained through the consultation process has been utilised to develop and refine this School Travel Plan.

Key issues raised in the consultations included:



- Establishment of ambitious mode share targets towards public and active transport modes
- Implementation and governance of the School Travel Plan
- Arrangements of ongoing management of the School Travel Plan
- Importance of cycling and car pooling as a means to achieve mode share targets
- Aligning the implementation of travel mode management measures within the School Travel Plan with the growth of the school population over time.

Details regarding the consultation are provided in Appendix B.



2 Site Conditions

2.1 Site Location

Chatswood Public School is located at 5 Centennial Avenue. As shown in Figure 2.1, the school site has accessible road frontages to:

- Pacific Highway
- Centennial Avenue
- Jenkins Street

The Chatswood Primary School site is located in close proximity to the Chatswood High School site, which is located on the southern side of Centennial Avenue.

Improvements to both the Chatswood Public and Chatwood High School sites were approved as part of SSD 9483. The operation of and interaction between the two schools has been considered the development of this School Travel Plan.

Chatswood Transport Interchange

Pacific Highway Site (Chatswood Public School)

Contentional Avenue Site (Chatswood Public School)

Contentional Avenue Site (Chatswood High School)

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Figure 2.1: Locality Map

Source: Google Maps Australia



2.2 Chatswood Public School Catchment

The transport assessment prepared for the Chatswood Public and High Schools upgrades (SSD 9483) included travel surveys for the public school's existing catchment area as shown in Figure 2.2.

The travel surveys highlighted an existing 59% Walk and 1% cycle travel mode for student trips to and from the Chatswood Public School.

Further details about existing travel modes are detailed in following sections of this plan.

Subsequent to the preparation of the transport assessment and approval of SSD 9483, it is understood that opportunities have been identified by the Department of Education (DoE) to construct a new public school on the metro construction dive site on the corner of Pacific Highway and Mowbray Road (see Figure 2.2).

The construction of a new school within the existing Chatswood Public School is anticipated to reduce the size of the already small Chatswood Public School catchment area and increase the proportional walkability for student trips within the overall catchment area.



Figure 2.2: Chatswood Public School Catchment (2023)



2.3 Surrounding Road Network

The Chatswood Public School site is surrounded by a network of state and local roads including Pacific Highway, Centennial Avenue and Jenkins Street.

A description of these roads is provided below.

Pacific Highway

Pacific Highway is a Roads and Maritime classified State Road and travels along the eastern boundary of Chatswood Public School.

The Highway serves as a major north-south arterial link, providing connectivity between the Warringah Freeway and M1 Pacific Motorway. Within the vicinity of the site, the Pacific Highway has a posted speed limit of 60km/h, with 40km/h school zone restrictions applicable during school hours (i.e. 8am-9.30am and 2.30pm-4pm).

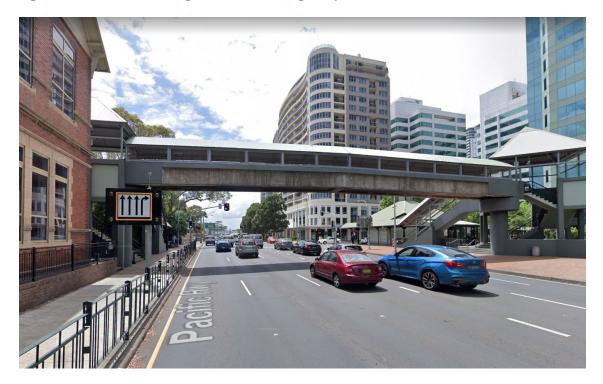
At the Chatswood Public School, the Highway is generally configured with six traffic lanes, with three traffic lanes in each direction, across an 18m wide road carriageway. No kerbside car parking is permitted on either side of the road. Tidal traffic flow arrangements are in place during evening peak periods within the vicinity of the site to provide four traffic lanes in the northbound and two traffic lanes in the southbound direction.

As shown in Figure 2.3, an overhead pedestrian bridge across the Pacific Highway is provided on the southern side of the Pacific Highway / Victoria Avenue intersection.

This pedestrian bridge has stair and escalator access on both sides of the Highway. The western side of the pedestrian bridge lands on the footpath on the Chatswood Public School's frontage to the Highway. It is acknowledged that there are ongoing issues associated with escalator maintenance and operation.



Figure 2.3: Pedestrian Bridge over Pacific Highway at Public School Site



Centennial Avenue

Centennial Avenue is a two-way, two-lane local road with on-street car parking provided on both sides of the road. It has an east-west alignment and predominately serves access to/from key drop off areas associated with both Chatswood Public School and Chatswood High School. It has a posted speed limit of 50km/h, with 40km/h school zone restrictions applicable during school hours.

Jenkins Street

Jenkins Street functions as a two-way local road, generally aligned in a north-south direction. The road predominately serves residential access to properties along Jenkins Street, particularly between Western Way and Fullers Road.

Notably, prior to the commencement of construction activities associated with the Schools upgrade project, Jenkins Street between Western Way and Centennial Avenue was observed to function as one of the main drop off/pick up areas during school hours for the Pacific Highway site, with P5 minute parking zones provided on either side of the street, near the southern end of the road on approach to Centennial Avenue.



Victoria Avenue

Victoria Avenue is a local road connecting to the Pacific Highway at a signalised intersection. Victoria Avenue provides both vehicle and pedestrian connections between the Highway and the western side of the Chatswood interchange.

A number of bus services arrive at / depart from the bus stands in Victoria Avenue to service areas to the west of the north shore rail line.

2.4 Proximity of School to Public Transport

The Chatswood Interchange provides a number of high frequency public transport services for both rail and bus services.

The interchange is located east of the site, approximately 250m (5-minute walk) from Chatswood Public School. The school's proximity to the transport interchange is shown in Figure 2.4.

Pacific Highway Sile (Chatswood Politic School)

Castenandal Avenue Sile (Chatswood High School)

Castenandal Avenue Sile (Chatswood High School)

Castenanda Avenue Sile (Chatswood High School)

Basemap Source: Google Maps Australia

Figure 2.4: Proximity of School's to Public Transport Services

20182-r04v05-231214-Public School Travel Plan



2.5 Existing Rail Services

Rail services are available at Chatswood Train Station and Chatswood Metro Station located approximately 250m (5-minute walk) from Chatswood Public School.

Chatswood Train Station provides frequent train services for T1 North Shore, Northern, and Western Line. During peak hours, T1 trains traveling from Chatswood to Sydney CBD, northern and western suburbs arrive at the station approximately every two minutes. In addition to this, the Sydney Metro between Chatswood Station and Tallawong Station arrives every four minutes during peak periods and every 10 minutes outside of peak periods.

A map of the existing rail network is provided in Figure 2.5.

Train timetable obtained from Transport for NSW (June 2023) indicate that there are currently 426 train services that run on weekdays at Chatswood Station in both directions.

A total of 108 trains service Chatswood Station during the school AM and PM peak (i.e. from 7am to 9am and from 2pm to 4pm on weekdays).

A summary of the existing rail services frequency at Chatswood Station during school peak hours is provided in Table 2.1.

Table 2.1: Summary of Rail Services at Chatswood Station During School Peak Hours

Train Service	Cordon	AM Period	PM Period	
Irdin service	Cordon	7am-9am	2pm-4pm	
T1 Line – North	To City	Every 2 to 3 minutes	Every 4 to 5 minutes	
Shore Line	From City	Every 3 to 4 minutes	Every 4 to 5 minutes	
T1 Line –	To City	Every 2 to 3 minutes	Every 4 to 5 minutes	
Western Line	From City	Every 3 to 4 minutes	Every 4 to 5 minutes	
T9 Line –	From Gordon To City	Every 15 minutes	Every 15 minutes	
Western Line	From Hornsby via City	Every 15 minutes	Every 15 minutes	
Motro Lino	From Chatswood Every 4 minutes		Before 3:43pm: Every 10 minutes From 3:43pm: Every 4 minutes	
Metro Line	Arriving at Chatswood	Every 4 minutes	Before 3:01pm: Every 10 minutes From 3:01pm: Every 4 minutes	



Figure 2.5: Existing Railway Network Metro Trains



Source: Transport for NSW (retrieved 02 May 2019)

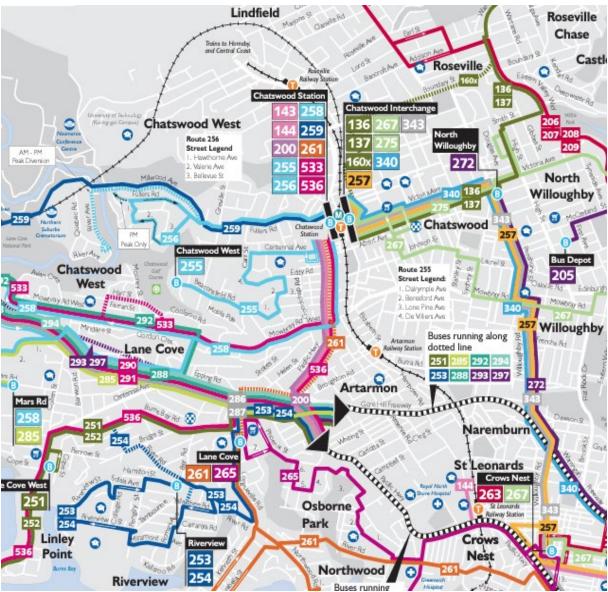
2.6 **Bus Services**

Chatswood Bus Interchange provides good connection to a wide range of bus services operating to/from areas of Sydney CBD, Northern Beaches, North Shore, Willoughby, Parramatta, Macquarie University, and Bondi. Chatswood Interchange bus stands are located along Victoria Avenue, Railway Street and Orchard Road.



The existing bus network maps are presented in Figure 2.6 and Figure 2.7.

Figure 2.6: Existing Bus Network Map – North Shore and West Network



Source: Transport for NSW (State Transit), North Shore & West Bus Network Map



East Lindfield Killarney Heights Roseville Roseville Lindfield Chase Castle Cove North Villoughby Middle Cove Castlecrag Castlecrag 0 Middle The Bluff Chatswood Northbridge Artarmon Naremburn B1 B-line 151 168 178 Lane Cove Crows St Leonards Nest Cammeray Neutral I Bay in this area and may no shown on this map. Ple refer to the Western 168 151 Region Guide for a mprehensive listing of North Sydne Kirribilli **B1** Cremorne Point .

Figure 2.7: Existing Bus Network Map – Northern Beaches and Lower North Shore

Source: Transport for NSW (State Transit), Northern Beaches and Lower North Shore Bus Network Map

As shown in Figure 2.6, Bus Route 255 service the stops along the local roads surrounding the site. This bus route provides link between Chatswood Station to Beaconsfield Road via Chatswood Public School and Chatswood High School.

A more detailed map showing the bus route is presented in Figure 2.8 and Figure 2.9.



In addition to the above bus services, shuttle buses for before and after school care providers currently use the bus stop directly in front of the public school on Centennial Avenue, as shown in Figure 2.10.

Chatswood Park

Figure 2.8: Existing Bus Network Map – Bus Route 255



Figure 2.9: Existing Bus Network Map – School Bus Route 683W

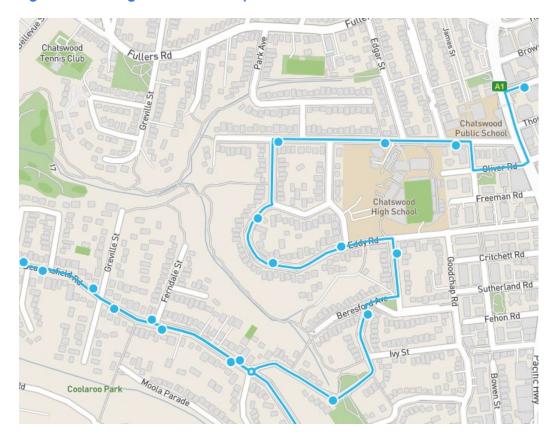


Figure 2.10: School Shuttle Bus (Before and After School Care)





2.7 Pedestrian Infrastructure

Well-established pedestrian facilities are available in the immediate vicinity of the Chatswood Public School site with a network of paved footpaths on both sides of the roads.

Victoria Avenue, Pacific Highway and Centennial Avenue are the most utilised roads in terms of pedestrian activity as these roads provide direct connection to the Chatswood Transport Interchange.

The following pedestrian facilities are currently provided within the vicinity the site:

- signalised pedestrian crossing on all approaches at the intersection of Pacific Highway and Victoria Avenue
- pedestrian bridge on the southern leg of Pacific Highway and Victoria Avenue intersection, equipped with escalators and stairs on both ends
- signalised pedestrian crossing on west approach at the intersection of Pacific Highway and Centennial Avenue
- signalised pedestrian crossing on the east, west and south approaches at the intersection of Pacific Highway, Albert Avenue and Oliver Road
- pedestrian (zebra) crossings along Centennial Avenue and Edgar Street, and
- concrete footpaths are provided on both sides of the roads surrounding the school.

These pedestrian facilities provide good connectivity between the Chatswood Public School and key transport nodes and attractions in the area.

It is noted that the existing pedestrian bridge over the Pacific Highway connecting the Chatswood Public School site to the Chatswood Transport Interchange is currently under-utilised due largely to maintenance issues associated with the escalators and perceived convenience of the at-grade traffic signals crossing of the Pacific Highway.

Potential measures to increase utilisation of the pedestrian bridge are documented in subsequent sections of this School Travel plan.

In addition, a dedicated marked pedestrian crossing is provided across Centennial Avenue. This marked crossing is staffed by a TfNSW accredited school crossing traffic controller on school days between 8:00am – 9:30am and 2:30-4:00pm to manage the safe and efficient movement of pedestrians across Centennial Avenue.

The existing pedestrian catchment within a 25-minute walking radius to/from the Chatswood Primary School is presented in Figure 2.11. Notably, the majority of these streets within this catchment have well-established pedestrian paths available.

Additionally, Figure 2.11 indicates that a significant proportion of the Chatswood Public School catchment area is within a 25 minute or less walk of the school.



2.8 Cycling Infrastructure

There currently exists a well-established cycling network providing a number of dedicated shared cycling paths and routes in the vicinity of the site. The existing cycle catchment within a 30-minute radius to/from the school is presented in Figure 2.12.

Notwithstanding the proximity of the Chatswood Public School site to existing cycling infrastructure, it is acknowledged that the school's location on the Pacific Highway (busy traffic route) with surrounding hilly terrain combined with the young age of students present significant potential barriers to cycling as a mode of transport for students.

As indicated by the travel mode surveys undertaken during the SSDA assessment, only 1% of students and 0% of staff cycled to and from the Chatswood Public School.

Notwithstanding the above, it is noted that Willoughby Council has recently constructed a number of cycleways between St Leonards and Chatswood, including a shared path on the eastern side of the Pacific Highway between St Leonards and Mowbray Road.

Additionally as shared path has been recently constructed on the western side of the Pacific Highway between Mowbray Road and Oliver Road. It is understood that there are plans to duplicate the shared path on the eastern side of the Highway in the future.

Such future facilities would improve the existing cycle connections to and from the Chatswood Public School.

2.9 On-Street Student Drop Off / Pick Up Zone

On-street student drop off / pick zone facilities are provided along the Chatswood Public School's frontage to Centennial Avenue.

The drop off / pick up zone extends along Centennial Avenue from the Jenkins Street intersection towards the Pacific Highway intersection. The areas available for drop off / pick up are located either side of the bus zone and the marked pedestrian crossing of Centennial Avenue.



2.10 Baseline (2019) Travel Mode Share

2.10.1 Overview of Public School Existing Travel Mode Survey

As part of the SSDA Transport Assessment, a 2019 travel mode survey was undertaken by TTPP for students and staff of the Chatswood Public School (and Chatswood High School).

The key objective of the travel mode survey was to determine travel mode types, trip generation and parking demand of the school.

The travel survey established baseline conditions for which the implementation of travel demand measures can be assessed.

The detailed methodology and findings of the mode share analysis are presented in the SSDA Transport Assessment.



Figure 2.11: Walking Catchment Area for Chatswood Public School

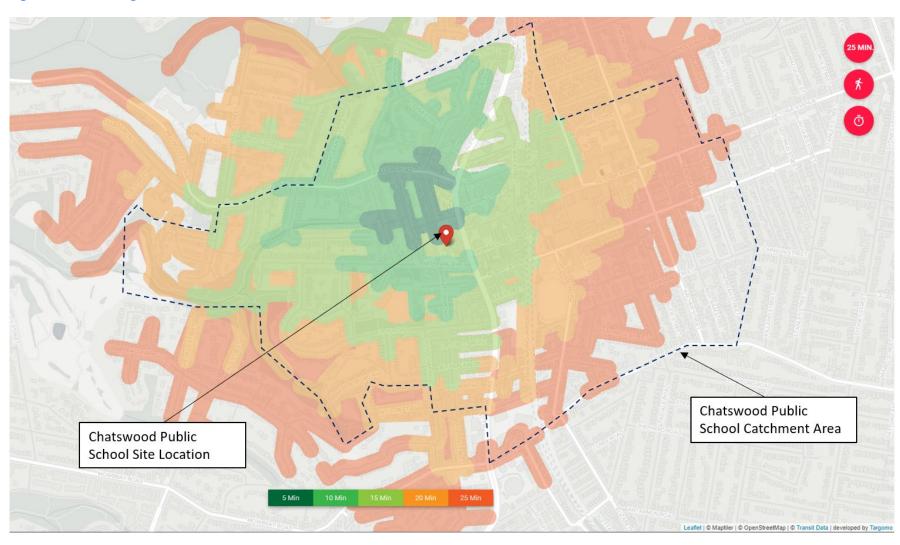




Figure 2.12: Surrounding Cycling Network



Source: North Shore Bike Map



2.10.2 Staff Travel Modes

Figure 2.13 provides a summary of the surveyed baseline (2019) travel mode percentages for staff at Chatswood Public School. It can be seen from this figures that private car travel is the primary mode of travel for staff (i.e. 64% for the public school).

The results indicate a high dependency on car usage for staff at both schools, despite the site's close proximity to high frequency public transport services.

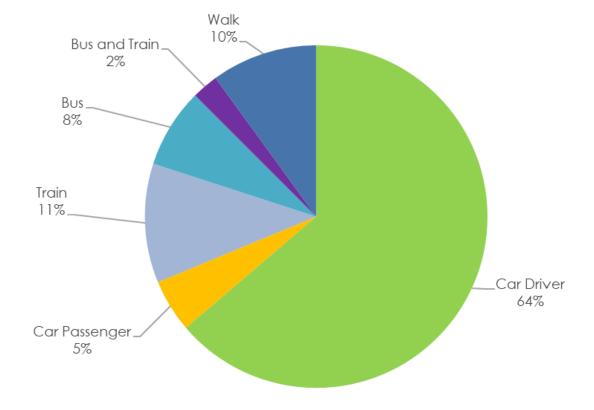


Figure 2.13: Baseline (2019) Travel Modes – Chatswood Public School Staff

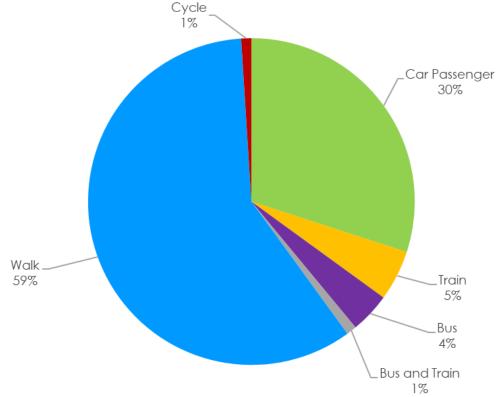
Staff travelling to/from the site using private vehicles were also asked where they would usually park their car as part of the survey questionnaire.

2.10.3 Student Travel Modes

A summary of the surveyed baseline travel modal percentages for students is presented in Figure 2.14.



Figure 2.14: Baseline (2019) Travel Modes – Chatswood Public School Students



Based on the above results, walking is the primary mode of travel to / from Chatswood Public School (59%) among the students, followed by private car trips (30%).



3 School Travel Plan Actions

3.1 Travel Mode Share Targets

As set by Condition D18(a)(ii) of the consent, the School Travel Plans for the Chatswood High School and Chatswood Primary School are tasked with developing measures to achieve a 16% reduction in car trips for future traffic generation associated with a 3,600 student population across both the Public and High School campuses.

It needs to be acknowledged that the 16% reduction in future car trips is not the same number as a 16% of all trips.

As noted in the preliminary Green Travel Plan¹ submitted with the SSDA a 16% reduction in car trips is required to achieve 'no net additional traffic' to the surrounding road network with a future combined High School and Public School population of 3,600 students compared to the existing combined schools' population.

Thus, this does not necessarily translate to a 16% mode shift from car use because of the following factors:

- some car trips occur outside the identified peak hour
- students who travel by car has an average occupancy rate of 1.65 to 1.76 students per car, and
- the assumed directional split during the morning peak hour is 85% inbound and 15% outbound (reverse in the afternoon peak) and therefore a student or staff who travel by car could potentially generate two car trips per hour (i.e. one trip inbound and one outbound).

The documents mode share targets for Chatswood Public School staff and students to achieve the 16% reduction in car trips is presented in Table 3.1. Similar targets and breakdowns are provided for the future high school population in the Chatswood High School Travel Plan.

The following actions have been identified through the SSDA assessment process and in the preparation of this Plan as measures seeking to achieve the reduction of car trips associated with the Chatswood Public School.

It is acknowledged that to evaluate the success of a School Travel Plan, there is the need to monitor the School Travel Plan policy and measures at regular intervals or when events/decisions occur that require a change in the plan.

20182-r04v05-231214-Public School Travel Plan

¹ Upgrades to Chatswood Public School and Chatswood High School – Green Travel Plan (TTPP, 17 March 2020).



Table 3.1: Chatswood Public School - Mode Share to Achieve 16% Reduction in Car Trips

Mode of Travel	Existing Mode Share (2019)		Mode Shift		Future Mode Share	
	Students	Staff	Students	Staff	Students	Staff
Car Driver	0%	64%	0%	-5%	0%	59%
Car Passenger	30%	5%	-5%	0%	25%	5%
Train	5%	11%	+1%	+2%	6%	13%
Bus	4%	8%	+1%	+1%	5%	9%
Bus & Train	1%	2%	0%	0%	1%	2%
Cycle	1%	0%	+2%	+1%	3%	1%
Walk	59%	10%	+1%	+1%	60%	11%
Total	100%	100%			100%	100%

Reference: Upgrades to Chatswood Public School and Chatswood High School – Green Travel Plan (TTPP, 17 March 2020)

The mode share targets set out in Table 3.1 are considered to be the minimum mode share targets such as to achieve a 'no net increase' in traffic the surrounding rod network by the Chatswood Public School operation.

Specifically, the mode share targets presented above reflect the target specified by Condition D18 of the consent.

Subject to the success of the implementation of the School Travel Plan travel demand management measures, more ambitious targets could be implemented to reduce car use below existing levels.

3.2 Walking Actions

3.2.1 Walking Routes

With the upgrade works to the Chatswood Public School, the school will have pedestrian access via gates at the Pacific Highway adjacent to the pedestrian bridge, on Centennial Avenue and via Jenkins Street.

The provision of pedestrian access via Centennial Avenue and Jenkins Street allows pedestrians to avoid the need to access the school via the Pacific Highway frontage.



The Jenkins Street access will improve the walkability or convenience for walking particularly for students accessing the school from the west.

As noted in Section 2 of this plan, the streets surrounding the Chatswood Public School generally provide footpaths on both sides of the road with kerb ramps at intersections and road crossings.

Dedicated pedestrian road crossing facilities are provided along the primary existing pedestrian routes to and from the school including:

- Marked school crossing of Centennial Avenue adjacent to the School's pedestrian access providing a connection between the Public School and the High School
- Pedestrian bridge over the Pacific Highway connecting the Chatswood Public School to the Chatswood Transport Interchange via Victoria Avenue
- Signalised pedestrian crossings at the Pacific Highway / Victoria Avenue intersection connecting the Chatswood Public School to the Chatswood Transport Interchange via Victoria Avenue
- Signalised pedestrian crossing of Centennial Avenue at Pacific Highway
- Signalised crossing of Pacific Highway (south approach) and Oliver Street

These dedicated pedestrian road crossings provide safe pedestrian routes to the surrounding school catchment and to key attractors including the Chatswood Transport Interchange and the Chatswood town centre.

The pedestrian routes utilising these pedestrian crossing facilities form the basis of the safe pedestrian routes to and from the school as identified in the Travel Access Guide (TAG), as provided in Appendix C.

The TAG will be promoted in school communications and online systems to encourage the use of pedestrian routes for walking trips to and from the school.

3.2.2 Pacific Highway Pedestrian Bridge

The Chatswood Public School's Pacific Highway pedestrian access is located in close proximity to the pedestrian bridge over the Pacific Highway and when operational is an attractive and safe option for access across the Pacific Highway.

It is understood that there are maintenance issues associated with the escalators which result in extensive periods when they are not operational. Discussions with Willoughby City Council indicated that the pedestrian bridge is owned and operated by the land owners of 799 Pacific Highway.

Notwithstanding the above, the Chatswood Public School, through the Travel Plan coordinator, will encourage students to use the pedestrian overbridge.



This will be achieved through:

- Promotion of the TAG and specifically the safe pedestrian walking routes identified in the TAG.
- Teacher supervision of crossing with active encouragement to use the pedestrian bridge
- Student and parent education about use of the pedestrian bridge.

3.2.3 Walking Programs and Strategies

There are a range of walking relating programs and strategies that will form part of the actions to achieve a mode shift away from private vehicles. These programs shall be implemented and reviewed as to their effectiveness for the site specific conditions for the Chatswood Public School. Examples are set out below.

In-class Active Travel to School Education

Students will be educated about active travel to school. Not all students may be aware of different travel modes. An in-class education will be held for students to discuss public and active travel to school.

Walking School Bus

Activities such as 'walking school buses' where all user groups can be involved in will be promoted.

A Walking School Bus is a group of primary school students walking to and from school together as a group, guided by a minimum of two supervising adults. It is suggested that such a program could be organised and implemented through the school's Parent & Citizens Association (P&C).

Supervisors can be volunteers, and parents, and they usually guide the bus with one leading and one bringing up the rear.

During the course of the program, supervisors are expected to model, teach and encourage safe walking habits, including crossing the road at safe locations, stopping at kerbs, and doing safety observation checks (look left-right-left).

https://education.nsw.gov.au/content/dam/maineducation/teaching-and-learning/curriculum/road-safety-

education/safetravel/Walking school bus planning and implementing considerations for schools.p

STEPtember

Charity events such as STEPtember are opportunities for students and staff to walk to/from school and achieve walking targets for the charity. An event such as this is for the month of



September and provides a great opportunity to install long-lasting effects of sustainable travel mode. It is noted that this can also be used as a friendly competition between schools in the Local Government Area to increase the number of students taking up the challenge (https://www.steptember.org.au/).

Walk Safely to School Day (WSTSD)

WSTSD is an annual event for primary school students who are encouraged to walk and commute safely to school (http://www.walk.com.au/WSTSD/)

Walk to Work Day (WTWD)

Similar to WTSD, WTWD is an annual event for all workers to walk to work and is promoted by the Pedestrian Council of Australia (http://www.walk.com.au/wtw/homepage.asp).

Gamification

Gamification relies on competition and social engagement to influence behaviour.

Games can be used to encourage students to use active and public transport. One such international example which can be used for inspiration is "Beat the Street" which was created by Intelligent Health.

The project turns towns and cities into a game where people earn points as they walk, cycle, and run (https://www.beatthestreet.me/)

Engagement with parents and carers

Parents and carers are the key decision-makers for how children travel to school.

Through the P&C and other means of communication (ie. website and electronic communications), the school can involve and engage parents to promote walking and cycling to school as an opportunity to stay active themselves. Parent/carer workshop could be an opportunity to initiate the discussion for active travel to school.

3.3 Cycling

3.3.1 Cycling as a Mode of Transport for Chatswood Public School

It is acknowledged that the location of the Chatswood Primary School's location on the Pacific Highway and hilly surrounding streets, coupled with the young age of students, does not represent overly attractive conditions for cycling to and from school for students.



This is reflected in the low use of cycling as a mode of transport to and from the school (1% of students and 0% of staff) as presented in the TTPP travel mode survey prepared during the SSDA assessment.

It is also acknowledged through consultation with School staff, that cycling as a mode of transport is not currently encouraged for Chatswood Public School students due to safety concerns. It is noted that cycling as a mode of transport will be encouraged more for older students at the adjacent Chatswood High School.

Notwithstanding the above, generally after walking cycling is one of the most sustainable transport modes and there are cycling programs developed for school students. As the bicycle network around the Chatswood Public School is improved over time, there will be opportunities to potentially implement cycling programs and provide cycling as a mode choice alternative for travel to and from school.

Additionally, the provision of on site 'end of trip facilities' such of bike parking and staff change areas will allow enable cycling to be offered as a realistic mode choice option. Essentially the provision of the end of trip facilities will remove one of the barriers to cycling and allow those staff and potentially students that wish to ride to school to do so.

3.3.2 Cycling Network

As detailed in Section 2 of this Plan, the School's benefits from access to some off road / shared path cycleway networks and local streets.

Active promotion of the cycling network to students, parents and staff via the TAG (see Appendix A) is considered a key to achieving a mode shift towards cycling for trips to and from school.

3.3.3 Cycling Management Strategies

Ride2School

Ride2School day is a national event held annually and includes competition and awards (e.g. Ride2School day 2021 includes the potential to win a new bike).

National Ride to School Day will be made an important event on the calendar as it promotes being active and healthy to young people, encouraging them to ride, roll, skate, scoot or walk to school.

Riding Groups

Similar to a walking school bus, the same type of group is formed for students and staff who wish to cycle to/from school. By pairing students together can assist in breaking down fears of cycling alone, improve safety awareness as a group, and encourage others to join.



3.3.4 Wayfinding for Bicycle Parking

As directed by Condition D22 of the consent, bicycle way finding signage will be installed within the school to direct student, staff and visitor cyclists from footpath to designated bicycle parking areas.

3.4 Public Transport

As noted in Section 2 of this Plan, the schools are well serviced by and have good access to a variety of public transport services.

However, to encourage public transport (particularly for staff) the following measures will be considered:

- A comprehensive map of the available public transport network, timetables and private bus services could be prepared showing the nearby bus stops and train station with appropriate walking routes.
- 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 public transport services during school term with a School Travel Pass.

An online application form must be completed. School Travel Passes are issued by Transport for NSW under the SSTS, in the form of a School Opal card.

Students in Years K-2 are eligible for a School Travel Pass with no minimum walking distance. Students in Years 3-6 are eligible for a School Travel Pass if the straight-line distance from their home address to school is more than 1.6 kilometres, or if the walking distance from home to school is 2.3 kilometres or further. Students within this zone may be eligible for a School Term Bus Pass (see below).

Further information is available at the following link: https://apps.transport.nsw.gov.au/ssts/

- Excursions Public transport would be used for school excursions, whenever appropriate. Local rail stations such as Chatswood Transport Interchange are to be contacted regarding the arrangements for any excursions via rail. Excursion travel on public transport will also help to familiarise students with the public transport system, options, and operations, and encourage them to use it in their daily travel
- Transport Access Guide (TAG) Users often face difficulties in using sustainable travel modes due to a simple lack of awareness of their travel options. If these options can be presented to users in an easy to understand format, they may be more likely to change their travel behaviours.



A brochure has been developed (known as a Transport Access Guide, or 'TAG') which provides information on transport options for accessing the schools. The TAG can easily be given to staff, students, and parents (including as part of the orientation pack), and will be uploaded to the school website to provide information for visitors.

A TAG for the Chatswood Public School is provided in Appendix C.

3.5 Carpooling

Staff would be encouraged to carpool their trips to and from the Chatswood Public School.

Allocation of dedicated car parking spaces within the Jenkins Street staff car parking area would be allocated for carpooling.

The existence of the carpooling system / forum could be provided in staff communications.

3.6 Action and Responsibilities

The key strategy and framework action table are summarised in Table 3.2. It must be noted that the below details will be updated as required. However, it is emphasised that the availability of the suggested strategies is a key factor in influencing travel patterns.

The implementation of this School Travel plan will require a formal Travel Plan Coordinator (TPC) who will have responsibility for further developing, implementing, and monitoring the School Travel plan annually.

The Travel Plan Coordinator will have the responsibility to develop the implementation plan for the introduction and then maintenance of the School Travel Plan.



Table 3.2: Framework Action Table

Item	Action	Responsibility	Timeframe
Walking	Safe walking routes to be identified in the TAG and the TAG promoted via online communications	Travel Plan Coordinator	Annual / bi-annual / monthly / weekly
	Maintenance of pedestrian bridge over Pacific Highway to be provided by the responsible contractual entity and enforced by Council / TfNSW	Council / TfNSW	Ongoing
	Improved signage for pedestrian bridge	SINSW / Council	Within 12 months of School Travel Plan Implementation
	Actively encourage students to use pedestrian bridge via the TAG	Travel Plan Coordinator	From Day 1 of School Travel Plan implementation
	Implementation of Walking Strategies	Travel Plan Coordinator	Within first 6 months of School Travel Plan Implementation and then reviewed annually
Cycling	Implementation of Cycling Strategies	Travel Plan Coordinator	Within first 6 months of School Travel Plan Implementation and then reviewed annually
Public Transport	Promote TAG	Travel Plan Coordinator	From Day 1 of School Travel Plan implementation and then ongoing
Car	Staff Car Pooling Program Travel Plan Coordinator		Within first 6 months of School Travel Plan Implementation and then reviewed annually
Governance	Set up a governance arrangement with Council, bus operator, TfNSW and SINSW to review and address school travel planning issues annually.	Travel Plan Coordinator	From Day 1 of School Travel Plan implementation and then ongoing
	Review the School Travel plan annually	Travel Plan Coordinator	Annual



3.7 Other Resources

3.7.1 Department of Education

The Road Safety Education Program has provided educational resources and professional development to teachers and childhood educators throughout NSW since 1986. It forms part of the formal school curriculum and pre-service training for teachers. Through this program, teachers are provided with professional learning and advice to equip them with the knowledge and skills to teach quality road safety education.

The program is funded by the Centre for Road Safety in government and non-government schools. Road safety is taught in the learning area of Personal Development, Health, and Physical Education (PDHPE). All students study PDHPE throughout the primary school to Year 10.

Topics covered regarding independent travel include walking to school safely, safety on public transport, always wearing a helmet when riding, and skateboarding safely.

3.7.2 Safety Town

The Centre for Road Safety provides an interactive website for use by primary school teachers, students, and parents. The Safety Town website allows the primary school community to access extensive information with specific advice relevant to students by year group.

Safety Town is a road safety education resource for teachers, students and families. It provides a variety of interactive learning activities for students from Kindergarten to Year 6. Teachers are provided with comprehensive teaching notes to support the use of the interactive activities, and support learning as part of PDHPE, English and Mathematics.

Information is also available on the NSW Department of Education website in the following link: https://www.safetytown.com.au/





4 School Transport Operations and Access Management

4.1 Management of On-Site Car Parking, Service Vehicle and Emergency Vehicle Access

4.1.1 Staff Car Parking

Prior to the Chatswood Public School upgrade works, a total of 18 on-site parking spaces were provided in two locations:

- Pacific Highway access: approximately 16 staff car parking spaces
- Jenkins Street: 2 car spaces dedicated to Out of School Hour Care staff

Post upgrade works, staff car parking will be provided on site within the new car parking facility accessed off Jenkins Street (see Figure 4.1).

The Jenkins Street car parking area will provide 18 on site staff parking spaces including 2 spaces designed as accessible parking spaces.

The Jenkins Street car parking area will also provide for special support vehicle drop off and pick up facilities.

Access to the Jenkins Street car parking area will be managed by the school with prearranged access permissions and parking allocation.

It is noted that the way-finding signage (as required under Condition D21 of the consent) shall be installed identifying the location of the staff car parking facilities.

At the vehicle entry to the Jenkins Street car parking area, there is a roller shutter that is kept closed. Access to staff and special use drop off parking is only possible in school hours with use of an allocated fob key.

Service/delivery vehicles have access to an intercom connected to each school's administration office to enable remote operation of access when required.

Waste collection vehicles also have an access fob for entry.

4.1.2 Bicycle Parking

A total of 60 on-site bicycle parking racks will be provided and available for both staff and students.



As shown in Figure 4.1, bicycle racks will be provided within the Jenkins Street car park and inside the school along the Pacific Highway frontage between the main and secondary student access.

The bicycle parking spaces located in the Jenkin Street car parking area are nominated as staff bicycle parking spaces.

The bicycle racks installed adjacent to the Pacific Highway pedestrian accesses are shown in Figure 4.2.

4.1.3 Emergency Vehicles

The vehicle access provided at the Pacific Highway will be designated as the primary emergency vehicle access point, namely for Ambulances. Emergency Vehicle access will also be available via the Jenkins Street access should it be more appropriate for responding to the emergency situation.



Figure 4.1: Car Parking and Bicycle Parking Locations





Figure 4.2: Bicycle Parking Racks (Pacific Highway frontage)





4.1.4 Service Vehicle Arrangements

Service vehicle access to designated service vehicle area in the Jenkins Street car park (ie. deliveries and waste collection) will be scheduled to be undertaken out of peak school start and finish times to reduce potential conflicts with peak pedestrian and vehicle activity around the school.

4.2 Management of Student Drop Off / Pick Up Operations

On street vehicle drop off / pick up facilities will be provided along the school's frontage to Centennial Avenue for student drop off and pick ups (see Figure 4.3).

The vehicle drop off / pick up facility will continue to be supervised by a school staff member.

The marked pedestrian crossing of Centennial Avenue will be managed by a School Crossing Supervisor. The Crossing Supervisor will assist children, disabled and other pedestrians to Centennial Avenue by stopping traffic and ensuring all pedestrians have crossed safely before allowing traffic to flow through the crossing.

There is an Out of School Hours Care (OSHC) program at the Chatswood Public School. This program successfully utilises the existing Drop off and Pick Up zones in Centennial Avenue for parking and access.

4.3 Bus Stop Operations

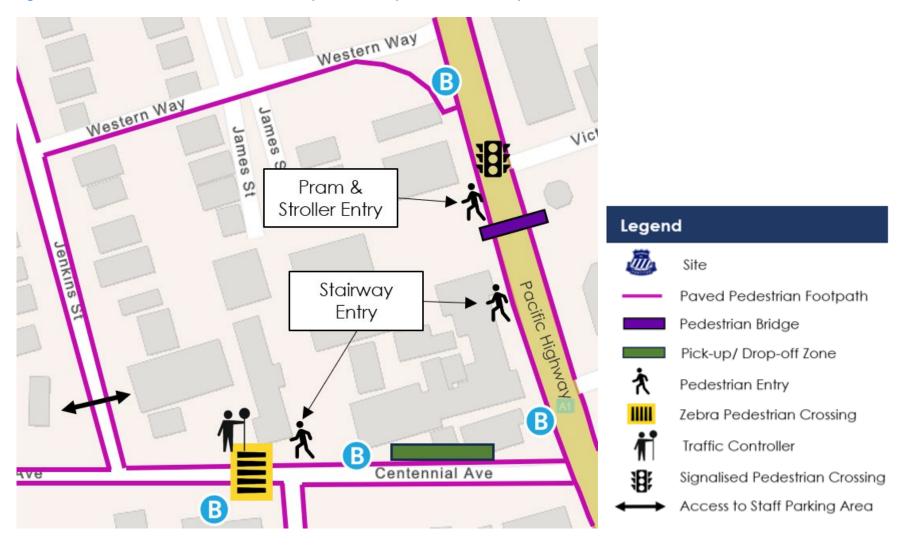
The Bus Stop zone on Centennial Avenue will facilitate school bus services for student travel to and from the school.

The during school drop off and pick up periods the bus stop will be supervised by a school staff member.

The location of the bus stop is shown on Figure 4.3.



Figure 4.3: Location of Centennial Avenue Drop Off / Pick Up Area and Bus Stop





4.4 Pedestrian and Cycling Routes

As noted in Section 3 of this School Travel Plan, pedestrian footpaths are provided on both sides of the roads surrounding the Chatswood Public School (see Figure 4.3).

Combined with the dedicated pedestrian crossing facilities of Centennial Avenue and the Pacific Highway, these paths provide a dedicated and safe path of travel for student and parent / carer pedestrian movements to and from the school.

The designated walking routes to and from the Chatswood Transport Interchange and CBD is provided in Figure 4.4. These routes are also presented in the School Travel Access Guide (TAG).

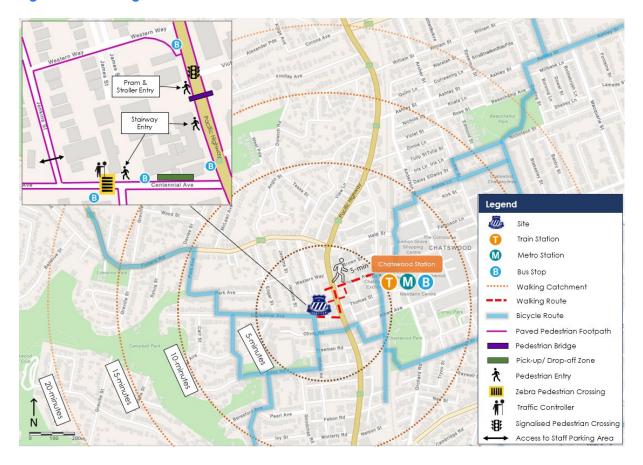
Similarly, the available bicycle routes to and from the school are shown in the Figure 4.4.

At school arrival and departure times pedestrian and cycle access is provided via the perimeter gates located on the Pacific Highway and Centennial Avenue (see Figure 4.3).

During school hours, surveillance of visitors is via a single access point and sign in at the administration building. Fob key access via the perimeter gates is also available to authorised staff.



Figure 4.4: Walking Routes



4.5 External Works

A range of works and improvements to the surrounding transport networks are proposed and being undertaken by others which will assist in the efficient and safety management of travel demand associated with the Chatswood Public School (and Chatswood High School).

These are set out below.

4.5.1 Pedestrian Countdown Timers

It is understood that pedestrian countdown timers are proposed to be installed on a trial basis at the Pacific Highway / Centennial Avenue intersection.

Pedestrian countdown timers show how many seconds you have left to cross before vehicles get a green light. The countdown timers allow pedestrians to appreciate how much time is left before the traffic receives a 'green' signal and to gauge if they have enough time to fully cross before the counter reaches zero.



With regard to the Pacific Highway / Centennial Avenue site, with its high volume of school student crossing demand, it is suggested that the installation of pedestrian countdown timers has the potential to improve traffic flow and pedestrian safety by reducing the number of people on the road at the wrong time.

4.5.2 Centennial Avenue Intersection Upgrades

In accordance with Condition C27 of the consent, consultation between the Applicant and Council has been undertaken regarding Centennial Avenue road upgrade works in order to improve the safety and efficiency of school drop off / pick up vehicle movements.

Following consultation, it is proposed that roundabout intersections will be installed to replace the existing priority - controlled intersections at the following locations:

- Centennial Avenue / Jenkins Street
- Centennial Avenue / Edgar Street.

As at the time of this report, detail designs for the intersections have been prepared and are being assessed through a Road Safety Audit.

Notwithstanding the above, the proposed roundabout treatments will facilitate improve access to the student drop off / pick up area for the Chatswood Public School. Traffic conflicts would be reduced, and pedestrian safety improved with the provision of dedicated turning facilities allowing vehicles to approach and depart the School drop off / pick up area via Centennial Avenue / Pacific Highway intersection.

4.6 Community Uses

The extent of community uses of the Chatswood Public School site outside of school operating hours is currently limited and ad hoc. Access to on-site parking is generally restricted and relies upon school staff to be on-site with an access key to provide access to parking.

Notwithstanding the above, there is potential for various future community uses of the Chatswood Public School site.

Parking and travel arrangements for ad hoc or one off events will shall be addressed on an event by event basis addressing the specifics of each event.

Should community uses be regular and ongoing, the School Travel Plan shall be updated as part of the review process to include the measures for travel demand management associated with these community activities.



5 Governance and Support

5.1 School Travel Plan Coordinator

To assist with the implementation and ongoing management of the School Travel Plan, a person(s) shall be nominated as the Travel Plan Coordinator (TPC) and be responsible for:

- Engagement with the staff and parent bodies,
- Implementation and promotion of the School Travel Plan actions,
- Monitoring the effectiveness of the Plan (refer to monitoring requirements outlined in Section 6) and ongoing maintenance of the School Travel Plan,
- Provide advice in relation to transport-related subjects to staff, management, and visitors, as required, and
- Liaise with external parties (i.e., Council, public transport operators, TfNSW) in relation to Travel Plan matters.

This role does not necessarily require a full-time position; however, it shall be clearly designated among the key responsibilities of the school management group.

5.2 Resourcing

It is not anticipated that the maintenance of this School Travel Plan will have significant ongoing cost implications and shall be reviewed on an annual basis by the Travel Plan Coordinator in order for the best outcome.

The funding arrangements for the implementation of the School Travel Plan shall be determined prior to implementation of the Plan.

As requested by TfNSW through the consultation process, funding arrangements for at least the first 5 years of the School Travel Plan operation shall be determined.



6 Monitoring and Review of School Travel Plan

6.1 Purpose

Ongoing monitoring and review are crucial to the success of the School Travel Plan as it is the assessment of whether the initiatives have been successful in terms of meeting the objectives and targets.

Monitoring will enact the opportunity for introducing new incentives or ways to change the travel decisions being made by students and staff in order to achieve positive outcomes on traffic congestion, road safety, and the environment.

6.2 Data Collection

To monitor the effectiveness (or otherwise) of the School Travel Plan and target mode shares, travel mode surveys will be undertaken as a 'hands up' survey of students and staff.

The wording for the questions to students during the 'hands up' surveys will be refined as part of the ongoing coordination with the School by the Travel Plan Coordinator.

Notwithstanding the above, the following questions will initially be asked to students and staff:

- 1. Which year group are you in? or Are you a staff member or volunteer at this school?
- 2. How did you travel to school today? (write number for each mode)
- 3. How will you travel home today? (write number for each mode)
- 4. Do you have any other feedback about traffic around the school site?

Responsibility for collating the "hands up" data, preparing, submitting, and monitoring the reports will be the responsibility of the Travel Plan Coordinator following each "hands up" survey. Collated data will be issued to SINSW and presented at Transport Working Group meetings.

The interval of the review surveys must allow for sufficient behaviour change and ensure the survey is clear of public holidays or significant events that may alter behaviour.

The survey is to capture student travel and staff travel mode share separately to ensure sufficient detail is captured to inform the decision-making process.



6.3 Frequency

The travel mode surveys will be undertaken bi-annually in Term 1 and Term 3.

The survey is to capture student travel and staff travel mode share separately to ensure sufficient detail is captured to inform the decision-making process.

The purpose of capturing survey responses to enable a review of the School Travel Plan and whether or not target mode shares are being achieved.

The surveys and subsequent annual reviews of the School Travel Plan will provide the opportunity for introducing new incentives or ways to change the travel decisions being made by students and staff in order to achieve positive outcomes on traffic congestion, road safety and the environment.

6.4 Communication

When implementing the School Travel Plan document, the following will be undertaken:

- Chatswood Public School to publish the School Travel Plan and TAG online via the school's website.
- Ongoing consultation and dialogue between Council, TfNSW and other stakeholders as necessary (ie. bus operators, DoE to address and operational issues with the school use of the network.
- Handover plan to train and engage with future SINISW / Department of Education Travel
 Plan Coordinator, new School Principal and/or other members of staff.
- The strategies to communicate the messages related to the School Travel Plan will include:
 - o Transport Access Guide (TAG) on website
 - o Monthly transport articles on website, newsletter, notice boards
 - o Annual transport summaries for new starters and open day kits



Appendix A

CV for School Travel Plan Authors



Jason Rudd Director



Industry Experience

30 years

Qualifications & Memberships

- BSc (Hons) (1st Class):
 University of New South Wales
- Australian Institute of Traffic Planning & Management (AITPM)
- Engineers Australia,
 Companion Member
- Chairman, Transport Panel,
 Engineers Australia 2008–2009

Key Skills & Competencies

- Traffic, transport and parking impact assessments
- Transport planning
- Integrated transport plans,
- Parking assessments
- Construction traffic management

Professional Background

2015 – Present The Transport Planning Partnership 2012 – 2015 GTA Consultants 2001 – 2012 Masson Wilson Twiney / Halcrow 1999 – 2001 Sinclair Knight Merz 1993 – 1999 Environmental Resources Management (formerly Mitchell McCotter)

Professional Overview

Jason has thirty years consulting experience in the field of traffic and transport planning for a broad cross-section of clients across the Australasian private and public business sector.

Jason has particular expertise in the assessment of proposed land use developments and transport infrastructure with an emphasis on the preparation of traffic and transport impact assessments, integrated transport plans, parking assessments and construction traffic management.

Jason appears as an expert witness in the NSW Land and Environment Court.

Industry Experience

Energy Projects

Biala Wind Farm EIS

Taralga Wind Farm ElS, Road Safety Review Solar Farm Construction Traffic Management Plans – Narromine, Parkes, Dubbo

Newcastle Coal Loader Upgrade (Newcastle Coal Infrastructure Group)

Hills of Gold Wind Farm , Nundle (Wind Energy Partners)

North Wagga Wagga Solar Farm (Risen Energy)

Moama Solar Farm (Risen Energy)

Inverell Solar Farm (Risen Energy)

Mt Piper Waste to Energy Facility (Energy Aust)
Botany Waste to Energy Facility (Suez)

Public Domain Transport Planning Projects

Quay & Connecting Streets (China Town)
Public Domain Plan (City of Sydney)

Pine Park Master Plan (Bayside Council)

Kirribilli Village Centre Master Plan (North Sydney Council)

Northbridge Local Centre—Public Domain & Streetscape Upgrades (Willoughby City Council)

Chatswood Chase Shopping Centre Redevelopment

Entertainment Quarter, Moore Park World Square Development, Sydney

Transport Interchange Studies

Chatswood Transport Interchange Development

Epping Station Upgrade, Epping to Parramatta Rail Line Project

Lidcombe Railway Station Turnback Facility NSW

Randwick Racecourse Transit Hub Project

Fairfield Transport Interchange Upgrade

Sydney Metro, Martin Place Over Station Development

Sydney Metro. Pitt Street North Over Station Development

Macquarie Park—Talavera Rd Zero Emissions Bus Depot Transport Feasibility Assessment (TfNSW)

Traffic Management Plans

Sydney Harbour Casino and Pyrmont Point Construction Traffic Management Plans

New Life Ultimo – Harris Street, Construction Traffic Management Plans

University Transport Planning

University of Sydney Campus Master Plan Transport Planning

Numerous University of Sydney Development Projects including:

- USyd Central
- Darlington Campus Public Domain Plan
- City Road Pedestrian Bridge
- Faculty of Law Building
- F23 & Carslaw Building Redevelopment

University of NSW – Cliffbrook School of Business

Transport Management & Accessibility Plan

McQuoin Park Aged Care Facility

Sydney International Convention and Entertainment Centre Concept Plan Application & TMAP

Transport Planning & Assessments

NSW Ambulance Service, Site Selection and Feasibility Assessments for Ambulance Stations in Sydney Metropolitan Area

1 Bligh Street, Sydney (Commercial Development)

Newcastle CBD Light Rail Project Review (Newcastle city Council)

Jacksons Landing, Pyrmont, Residential Development

286 Sussex Street, Sydney Mixed Use Development

495 Harris Street, Pyrmont Mixed Use Development

Potts Hill Reservoir Employment and Residential Kings Hills Urban Release Area



Jessica Ng Associate



Industry Experience

8 years +

Qualifications & Memberships

- BE Civil (Hons), UNSW
- Prepare a Work Zone Traffic Management Plan Card
- Road Safety Auditor
- White Card
- AITPM Member
- Engineers Australia Member

Key Skills & Competencies

- Traffic, transport and parking impact assessments
- Transport planning
- Parking assessments
- Construction Traffic Management
- Traffic Control Plans
- Road Safety Audits

Professional Background

2016 – Present The Transport Planning Partnership 2016 – 2016 GTA Consultants 2015 – 2016 Manly Council 2014 – 2015 City of Ryde Council

Professional Overview

Jessica has over eight years of experience in traffic and transportation engineering in both public and private sectors. Jessica is experienced in assessing traffic, transport and parking impacts through her involvement in various small to large scale developments.

She has been involved in projects such as traffic impact assessments, traffic modelling using SIDRA intersection software, car park design, Local Area Traffic Management (LATM) studies, City Centre car parking strategies, construction traffic management planning and traffic control plans. In addition, Jessica is an accredited Level 1 Road Safety Auditor and has certification to prepare work zone traffic management plan.

Industry Experience

Traffic Impact Assessments

Royal North Shore Hospital Precinct
Bass Hill Shopping Centre Expansion
Crossroads & Prospect Homemaker Shopping
Centres

Proposed Residential Development at Rickard Road & Byron Road Leppington

Rouse Hill Northern Town Centre Upgrade

Mirvac Mixed Use Development at Figtree Drive, Sydney Olympic Park & Carrington Road Marrickville

Proposed East Quarter Development, Forest Road, Hurstville

Proposed North Shore Private Hospital
Thornton Central, Penrith Redevelopment
Fairfield West Child Care Centre
Various Ambulance NSW Sites
City of Tattersalls Club, Sydney
Proposed Jardan Furniture Store, Paddington
Bligh Street Hotel Development
Crystal Car Wash Kingsford

School / Education Projects

Chatswood Education Precinct:

- Transport Study
- Green Travel Plan
- Construction Traffic Management Plan
 Cecil Hills High School Transport Study
 Neutral Bay Primary School Transport Study
 Moriah College Transport Assessment
 Waitara Public School Green Travel Plan
 Wadalba Community School Upgrade
 Meadowbank TAFE:
- Phase 1 Interim Works Traffic Assessment
- Phase 1 Green Travel Plan
- Phase 1 Safety Design Assessment

Car Park Review / Design

Harold Park Proposed Residential Development Proposed Horizon Residential Development at 20 -28 Cambridge St, Epping

Rouse Hill Town Centre Northern Car Park Expansion

Proposed Intersection Redesign of Burton and Palmer Street , Darlinghurst

Randwick Newmarket

Transport Planning

Liverpool City Centre Car Parking Strategy
Prince of Wales Hospital Masterplanning
Carnes Hill Shopping Centre Feasibility Study
Warringah Mall Redevelopment
Kurnell Peninsula
Gipps Street Open Space Precinct
Leppington Open Space Precinct

Construction Traffic Management Plans

Northern Beaches Hospital Connectivity and Enhancement Project

Proposed Mirvac Mixed Use Development at 2 Figtree Drive, Sydney Olympic Park

Castle Towers Shopping Centre

Westmead Hospital Redevelopment - Acute Services Building

146-150 Campbell Parade, Bondi

DFS Galleria Sydney

North Shore Private Hospital, St Leonards 1A Coulson Street, Erskineville

Road Safety Auditing

Curlewis Street Cycleway
Various Stages for Westconnex 3B
Various Stages of Western Sydney Airport
Northern Beaches Hospital Connectivity and
Enhancement Project
Sydney Metro Martin Place



Appendix B

Consultation Register



Table B.1: Consultation Register

Agency / Stakeholder	Date	Agency Comments	Response to Agency Comments
TfNSW & Willoughby City Council	During SSDA assessment	Both TfNSW and Council was consulted during the SSD assessment stage and lead to the formulation of the Conditions of Consent.	School Travel Plans have been developed to address the Conditions of Consent, specifically Condition D18-School Transport Plan.
Chatswood Public School, Chatswood High School, School Infrastructure, RCC, TTPP	31/5/23	Both the Public School and High School representatives provided comment and operational input to the Travel Plans	Comments / inputs provided by the schools have been incorporated into the School Travel Plans. It is noted that at the request of the schools, separate School Travel Plans have been prepared.
Meeting Willoughby City Council / School Infrastructure / School representatives	28/6/23	It is understood from the meeting that TfNSW is proposing to install and trial count down timers on the pedestrians lanterns at the signalised Pacific Highway / Centennial Avenue intersection.	Noted
Willoughby City Council <u>Daniel.Sui@ Willoughby.nsw.gov.au</u> <u>Adeline.Sim@ Willoughby.nsw.gov.au</u> <u>Clare.Woods@willoughby.nsw.gov.au</u>	6/9/23	Draft High School Travel Plan (v03) issued to Council for comments	-
Transport for NSW Sophia.Grieve@transport.nsw.gov.au	6/9/23	Draft High School Travel Plan (v03) issued to Council for comments	-
Consultation Responses			
Transport for NSW Sophia.Grieve@transport.nsw.gov.au	12/9/23 & 23/10/23	Further information required in the Plan addressing: Car parking provisions and usage Mode Share targets End of Trip Facilities Governance of the School Travel Plan and Implementation Use of standardise School Travel Plan Templates	Further information addressing the matters raised have been incorporated into an updated School Travel Plan. The TAG has been updated using standard templates as provided by TfNSW.



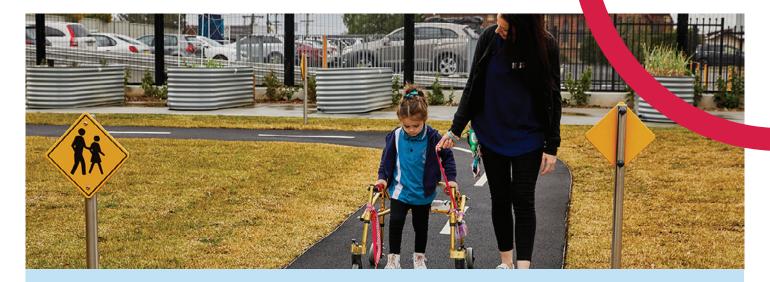
Transport for NSW Ben.Borger@transport.nsw.gov.au	25/9/23	Further consideration required in the School Travel Plan regarding: Bicycle parking and cycling routes Car Pool arrangements Monitoring of School Travel Plan effectiveness and implications to road network of not achieving mode targets	The School Travel Plan have provided additional information pertaining to the operation of the various travel modes. It is noted that external rods works beyond thus assessed as necessary for the SSDA approval are being undertaken, namely the Centennial Avenue roundabouts. These works will specifically address potential traffic issues associated with congestion and conflicts at school drop off and pick up times.		
Willoughby City Council	26/9/23	External road works being undertaken in Centennial Avenue Pedestrian facilities at the Pacific Highway pedestrian crossings	Reference to the external road works in centennial Avenue have been incorporated in the School Travel Plan. The works once complete will assist minimise future traffic conflicts generated by the School(s) and general public. It is noted that the School and Council will have an ongoing dialogue regarding pedestrian safety and management, including the management of the Pacific Highway crossings.		



Appendix C

Chatswood Public School Travel Access Guide (TAG)

NSW Department of Education – School Infrastructure



Chatswood Public School

Travel Access Guide

Project overview

Chatswood Public School has been upgraded with new and improved education facilities to support the student community.

Active ways to get to school



Walking is an active and healthy way to get to school

- Look both ways before crossing the road.
- Only cross the road at dedicated crossing facilities. For example at zebra crossings or signalised pedestrian crossings.



Ride your bike

- Wear a helmet when riding your bike
- Ride your bike on bike-friendly routes
- Park your bike in the racks inside the school
- Ride with school friends and or a parent / carer



Ride your scooter

- Wear a helmet when riding your scooter
- Park your scooter in the racks inside the school
- Ride with school friends and or a parent / carer

Drop Off / Pick Up Expectations

- Student Drop Off / Pick Up by vehicles will be along Centennial Ave
- Park legally within the drop off / pick up area
- Do not stop in the travel lane to drop off / pick up children
- Please follow the direction of staff supervisors

Using public transport to get to school



The nearest bus stops are located along the school frontage on Pacific Highway and Centennial Avenue. The bus routes that service these bus stops are 255, 256, 259 and 530.



The nearest train/ metro station is Chatswood Station which is serviced by Metro North West Line, T1 (North Shore & Western Line) and the T9 (Northern Line).

Plan your trip to School

You can plan ahead to make sure you get to school on time. Additional information about service routes, timetables for buses and trains along with walking / cycling routes can be found at transportnsw.info/trip#/trip.

Apply for a School Opal Card

- Step 1: Complete the on-line application form at transportnsw.info/school-students.
- Step 2: The school will check the on-line application and approve the issue of the Card. Once approved, Transport for NSW sends the School Opal card to the home address given in the application. For more information on the School Opal card and the School Student Travel Scheme (SSTS), please visit transportnsw.info/school-students.

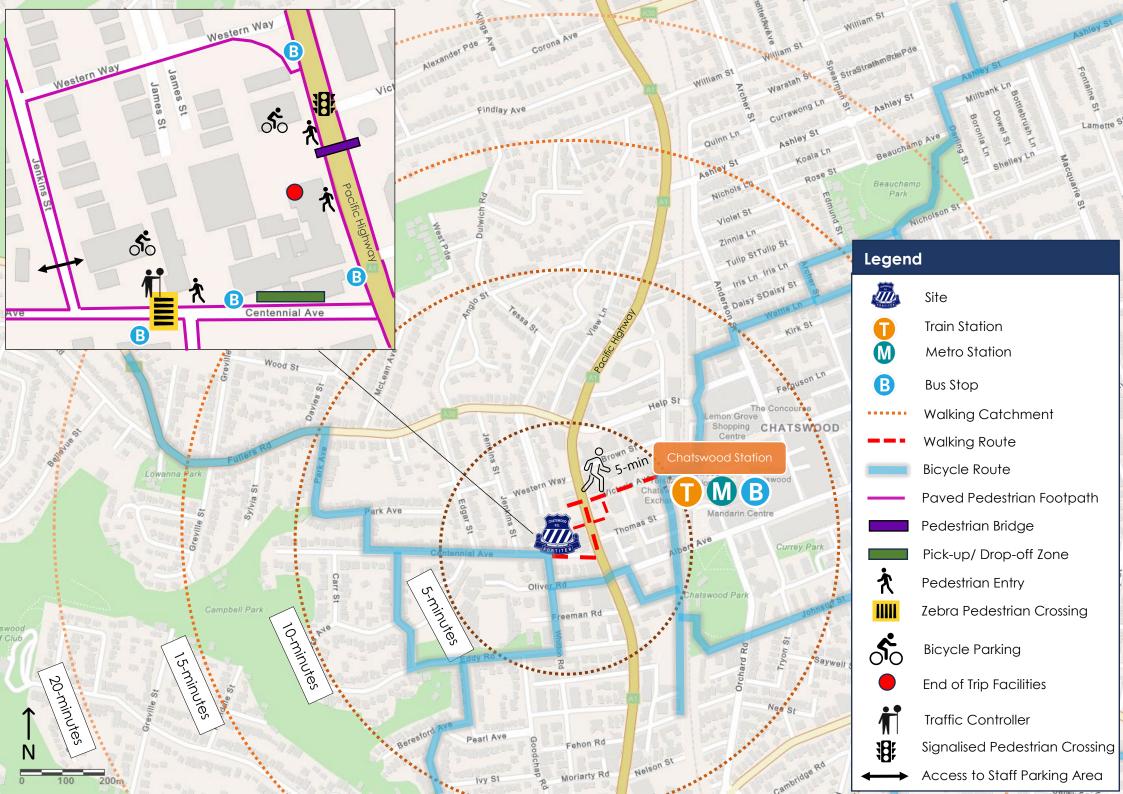
For more information contact:

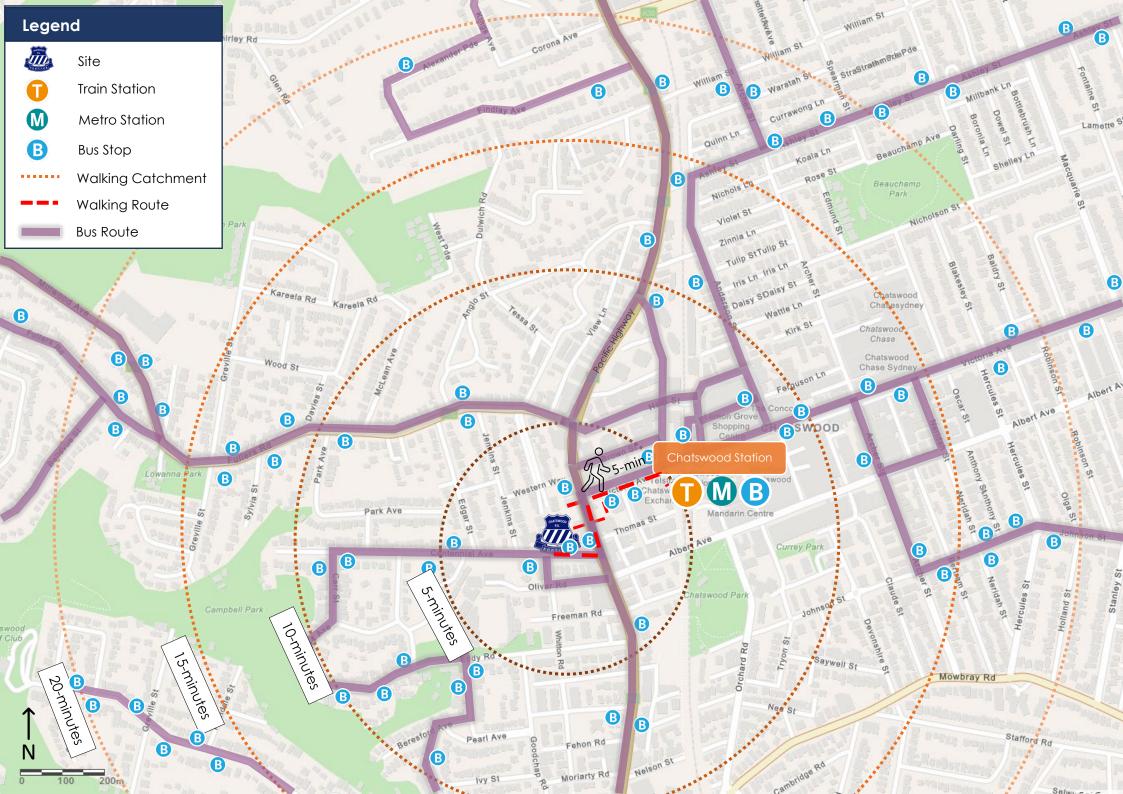
School Infrastructure NSW Email: schoolinfrastructure@det.nsw.edu.au Phone: 1300 482 651

www.school in frastructure.nsw.gov. au









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