

Preliminary Construction Traffic Management Plan

Upgrades to Northmead Public School

Prepared for NSW Department of Education

28 April 2025

231617

Revision Register

Rev	Date	Prepared by	Reviewed by	Approved by	Remarks
P1	17/01/2025	M. Partadinata	M. Mulholland	-	Issued as draft
P2	04/02/2025	M. Partadinata	M. Mulholland	-	Issued as draft
1	10/02/2025	M. Partadinata	M. Mulholland	P. Yannoulatos	Issue for REF Submission
2	20/02/2025	M. Partadinata	M. Mulholland	P. Yannoulatos	Issue for REF Submission
3	28/04/2025	M. Partadinata	M. Mulholland	P. Yannoulatos	Issue for REF Submission

Document Control

Internal Referen	ce 231617
File path	P:\2023\2316\231617\Reports\TTW\Transport Planning\Preliminary CTMP\250428 NPS Preliminary Construction Traffic Management Plan [3].docx

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Section 1 Introduction

This preliminary Construction Traffic Management Plan (CTMP) has been prepared to accompany a Review of Environmental Factors (REF) prepared for the Department of Education (DoE) relating to upgrades to Northmead Public School (the activity) under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP TI).

This document has been prepared in accordance with the Guidelines for Division 5.1 assessments (the Guidelines) by the Department of Planning, Housing and Infrastructure.

This report examines and takes into account the relevant environmental factors in the Guidelines and Environmental Planning and Assessment Regulations 2021 under Section 170, Section 171 and Section 171A of the EP&A Regulation.

This report has been prepared to assess and address the construction traffic impacts of the proposed development and define the necessary management process and mitigation measures for the construction of the Northmead Public School Upgrade.

This report has been prepared to assess and address the construction traffic impacts of the proposed development and define the necessary management process and mitigation measures for construction of the project. This preliminary CTMP is prepared to accompany the Review of Environmental Factors (REF) planning submission. This report is considered preliminary in nature. Following planning approval, this CTMP will be superseded by an agreed and a detailed CTMP developed once a contractor has been appointed.

1.1 Proposed Activity Description

The proposed activity for upgrades to Northmead Public School (NPS) includes:

- One (1) new single storey classroom building comprising of four (4) general learning spaces (GLS), two
 (2) special program spaces, a singular learning commons space and a singular multi-purpose space;
- Minor internal alterations to an existing Admin Building (known as Building A); and
- Removal of existing portable classroom buildings containing six (6) classrooms.

1.2 Activity Site

The project site is located at 52A Moxhams Road, Northmead and is legally described as:

- Lot 1 DP 366405;
- Lot 1 DP 176742;
- Lot 1 DP 20061; and
- Lot 1 DP 209810.

NPS is located on the southern side of Moxhams Road and on the western side of Kleins Road. The project site bounded by Moxhams Road, Kleins Road and Moss Street. The site is located approximately 3.8km northwest of the Parramatta CBD, and approximately 22km west of the Sydney CBD. **Figure 1** is an aerial photograph of the site.



Figure 1: Site Location Source: DFP Planning

1.3 Evaluation of Environmental Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed development, it is determined that:

- The extent and nature of potential impacts are low, on-site trees will be retained, and protection measures will be implemented to avoid the tree protection zones. A detailed CTMP will review this area and appropriate mitigation measures will be implemented to ensure no significant adverse effects on the locality, community and the environment.
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal effect on the locality, community.

1.4 Guidelines and References

In preparing this report, reference has been made to the following:

- Traffic Control at Work Sites Technical Manual, TfNSW, February 2022
- Australian Standard AS1742.3:2019 'Manual of Uniform Traffic Control Devices Traffic control for works on roads
- Australian Standards AS1428.1'Design for Access and Mobility'
- Austroads Guide to Temporary Traffic Management series (2021)
- Other documents referenced in this report.

Section 2 Construction Overview

Until the appointment of a contractor and the development of a detailed construction methodology, few details are known about the precise nature of construction works, and construction vehicle movements required to service this site. However, preliminary estimates can be made based on the site constraints, existing connections, and proposed new works. Once a contractor is appointed in future, and a construction methodology is developed, these details will be further refined and published in an updated CTMP.

2.1 Construction Operation

The demolition works will take place during school holidays. However, minor works will occur while the existing school is in operation. The construction site will be secured and completely separated from school activity to ensure safety of students and staff. Following appointment of a contractor a detailed construction plan will be implemented detailing the specifics and separation of construction and school activity.

Based on the proposed site plan as shown in Figure 2, NPS building upgrades will include a new classroom building (Building T) and some minor refurbishment in the admin building (Building A). Building T will be constructed on the western portion of the site and Building A is located at the northern portion of the site.



Figure 2: Site Plan Source: Fulton Trotter Architects (NPS-FTA-00-00-DR-A-1101)

2.1.1 Access Arrangements

Information provided by the project team has confirmed construction vehicle access to the site will be confined to one area and is anticipated to be via the existing Moss Street vehicle access, located along the southern frontage of the site. Figure 3 provides details of the proposed vehicle access and on-site loading and unloading areas.



Figure 3: Anticipated Construction Vehicle Access Source: Modified Nearmap

To ensure separation between construction workers and students, construction workers will access the site via a separated access. Temporary construction accesses are anticipated to be located along Moss Street to access Building T and Moxhams Road to access Building A. Hoarding and protection will be installed to protect pedestrians.

It is important to note that the discussed are potential access points estimated based on existing information that are preliminary in nature. The real-time access points will require the establishment of a contractor. This includes the construction and operation status, such as any potential on-road work zones designated for public domain works, and potential site sheds. However, any final construction access methods must be developed and managed to not significantly impact day-to-day operation of the school.

2.1.2 Hours of Operation

The hours of operation for construction activities are to be determined by the planning authority, and will likely contain similar work hours to the following:

- Monday to Friday
 7:00 am 6:00 pm
- Saturday 8:00 am 1:00 pm
- Sunday and Public Holidays
 None

2.1.3 Construction Vehicle Volumes

It is assumed that the average volume of construction vehicle traffic to and from the site would be consistent with other SINSW projects of similar sizes. Whilst there is no increase in students or staff as part of this project the projects outlined in Table 1 below were of similar scale.

Given limited information a comparison between the number of students which will accommodate the new building upgrades was completed. The new permanent building at NPS will accommodate roughly 100 students and therefore the below SINSW school upgrades are considered comparable.

Table 1: Construction Vehicle Volumes at Similar Construction Sites

Project	Student Volume	Peak # of Trucks per day	Typical # of Trucks per day
John Palmer Public School	+ 69 students	6	6
Neutral Bay Public School + 100 students		6	2
Pendle Hill High School	+ 240 Students	20	6 – 8

As shown in Table 1 when compared to other SINSW school upgrades peak number of trucks accessing the site is between 6-20 vehicles, while on a typical day this varies between 2-8 construction vehicles.

As previously mentioned, the new permanent building will accommodate roughly 100 students. It is therefore estimated that this project will accommodate approximately 10 - 15 trucks during peak phase, and approximately 3 - 10 on a typical day. This information is provided for reference only, and more accurate data will be provided by the appointed contractor prior to the commencement of construction.

2.1.4 Worker Parking

To provide an understanding of the potential impacts of construction worker vehicle parking, Table 2 includes data from similar SINSW projects to provide an indication of anticipated construction worker numbers at similar sites.

Project	Student Volume	Peak No. Daily Workforce	Typical Daily Workforce
John Palmer Public School	+ 69 students	50	20
Neutral Bay Public School	+ 100 students	30	20

Project	Student Volume	Peak No. Daily Workforce	Typical Daily Workforce
Pendle Hill High School	+ 240 students	70	15

As shown in Table 2, based on similar size projects, it is estimated that the project will generate similar demands, resulting in an anticipated maximum workforce of 50 construction workers. On a typical day during construction the workforce is anticipated to be between 15-20 construction workers.

Construction employees will not be able to park inside the construction site or in the staff car park within the school grounds. Where possible construction workers utilise public transport and carpool to access the site. As a conservative assessment it has been assumed applying a <u>2 person per car occupancy</u> rate to the peak and typical daily workforce results in a car parking demand of 15-25 peak parking spaces and 8-10 parking spaces on a typical day.

From on-site observations and review of Nearmap aerial footage there is available on-street unrestricted parking within the vicinity of the site. Specifically, Allambie Avenue, Thomas Street and Lombard Street. Once a contractor is appointed, a strategy shall be developed to minimise the demand for parking in nearby public and residential streets and ensure construction workers utilise public transport and carpooling methods where possible.

2.1.5 Construction Vehicle Types

The most common construction vehicle types are expected to range from 8.8 metre Medium Rigid Vehicle (MRV) to 12.5 metre Heavy Rigid Vehicles (HRV). The project can accommodate a 12.5 metre HRV and the analysis of the construction vehicle to the proposed site is shown in Appendix A. The project may require using a larger truck from time to time, during bulk earthworks, however these larger trucks will not be frequently utilised during construction.

Depending on the constructability of the project, special-purpose vehicles may be required for activities such as installation. This will be determined once a contractor has been appointed and these may be subject to special approval which would be obtained on a case-by-case basis. The necessary approvals would be discussed with TfNSW and Council at the time, subject to the affected road location.

2.1.6 Construction Program

The detailed construction program has not yet been determined, However, the program is estimated to run from July 2025 to July 2026. A detailed construction program will be prepared by the appointed contractor prior to construction.

2.1.7 Construction Waste Operation

The construction waste area will be located adjacent to the proposed building T upgrades. As advised by the waste consultant, a 9.2 metre waste truck will be utilised for construction waste collection. The construction waste vehicle will utilise the proposed construction vehicle access via Moss Street. Any vehicle up to 12.5 metres can be accommodated through the proposed construction vehicle access and therefore the 9.2 metre waste truck can utilise the construction vehicle access.

2.2 Construction Traffic Management

2.2.1 Construction Delivery Management

The delivery of material to and from the site will result in some generated traffic activity associated with the works. The estimated construction traffic volume for the standard operation for the worst case is 15 trucks per day. This is equivalent to approximately 1 - 2 trucks per hour over a 10 hour working day. Heavy vehicles must arrive outside school AM and PM pick-up and drop-off peak periods, therefore there will be **no** impact on the peak period traffic volume associated with the heavy construction vehicles.

In order to minimise any potential impacts on the performance and safety of the road network, the following administrative measures will be in place:

- All construction deliveries will take place during standard construction hours and outside of drop-off/pickup activities.
- Construction deliveries are to be staggered throughout the day to minimise queueing and minimise any periods of excessive noise levels.
- All construction movements will be managed and supervised by traffic controller to ensure the safety of students, staff and nearby pedestrians.

2.2.2 Construction Traffic Impact

Light vehicle traffic generation would be generally associated with construction worker movements to and from the site. Construction workers would be comprised of project managers, various trades and general construction employees. Over the full construction period, the peak workforce detailed in Section 2.1.4 shows that 15-25 vehicles are estimated to be the worst number of vehicles generated by the construction workers. The peak construction traffic periods for the workforce will typically arrive and depart at 6:30 - 7:00am and 6:00 - 6:30pm respectively each day. Therefore, the peak construction traffic is intended not to overlap with the typical peak commuter traffic or pick up and drop off times and thus, the construction traffic will have a minimal impact on the local network. Although construction traffic for light vehicles will have minimal impact, workers should be encouraged to use active and public transport options.

Heavy vehicles would be generally associated with deliveries and construction machinery to and from the site. As mentioned previously in Section 2.3.1, any deliveries will be conducted outside of the school peak period in the morning and afternoon. Hence, heavy vehicles will have a minimal impact on the local network.

2.2.3 Construction Vehicle Routes

All construction vehicles are to travel on the main road network (such as motorways and arterial roads) as far as practical, except where strictly required to reach the construction site.

The directional distribution and assignment of traffic generated by the construction works will be influenced by a number of factors, particularly the origin / destination of materials, configuration of access points to the site and the surrounding arterial road network.

It is anticipated that trucks travelling to / from the east, west, and south will mainly use Cumberland Highway and Kleins Road, while those travelling to / from the north will utilise Windsor Road and turn right to Cumberland Highway before turning right onto Kleins Road, as shown in Figure 4.



Figure 4: Construction Vehicle Routes

Source: Modified from Nearmaps

It is noteworthy to mention, these are suggested truck routes only. A further assessment of these vehicle routes will be completed following contractor appointment. Drivers are also expected to travel to their intended destination using routes that are deemed as appropriate depending on local traffic conditions.

Section 3 Coordination and Construction Administration

3.1 Traffic Guidance Scheme

As part of the detailed CTMP, Traffic Guidance Schemes (previously referred to as Traffic Control Plans) will be prepared in accordance with the principles of the Traffic Control at Work Sites manual (Transport for NSW, 2020). The Traffic Guidance Schemes primarily show where construction signs will be located at specific locations (such as uncontrolled intersections) along the approved truck routes to warn other road users of the increase in construction vehicle movements. Traffic controllers will be employed to manage construction vehicle movements in and out of the site.

The Traffic Guidance Schemes will generally include the following considerations:

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

3.2 Site Induction

All workers employed on-site by the contractors would be required to undergo a site induction. The induction would include:

- Permitted truck routes to and from the work site
- Restricted parking within the adjacent local roads
- Preferred travel to the site by public transport and overview of off-site parking locations and shuttle bus arrangements

3.3 Site Communications

The site manager shall be responsible for liaising with the site manager of any surrounding construction projects once identified. Communication across sites should ensure:

- Overall project programs are to be identified and shared.
- High-volume days or periods (such as concrete pours) are to be communicated, and where possible are to be coordinated to avoid excessive impact to the road network.
- Oversize / overmass delivery days are to be communicated, and where possible are to be coordinated to avoid excessive impact to the road network.
- Traffic control measures (including Traffic Guidance Schemes) are to be shared if these may be relevant to construction vehicle routes for surrounding projects.

3.4 Workplace Health and Safety

Any workers required to undertake works or traffic control within the public domain shall be suitably trained and covered by adequate and appropriate insurance. All traffic control personnel will be required to hold Transport for NSW certification in accordance with the 'Traffic Control at Work Sites' manual.

3.5 Local Impacts

The site manager shall be responsible for liaising with the site manager of any surrounding construction projects once identified. In particular, communication across sites should ensure:

- Overall project programs are to be identified and shared.
- High-volume days or periods (such as concrete pours) are to be communicated, and where possible are to be coordinated to avoid excessive impact to the road network.
- Oversize / over mass delivery days are to be communicated, and where possible are to be coordinated to avoid excessive impact to the road network.
- Traffic control measures (including Traffic Control Plans / Traffic Guidance Schemes) are to be shared if these may be relevant to construction vehicle routes for surrounding projects.

3.6 Community Notification

Community notification shall be undertaken as per any school or SINSW requirements and should include:

- Temporary notification signage installed around the site and affected areas highlighting the upcoming changes / impact.
- Door knocking to the immediately surrounding stakeholders advising them of the upcoming works.
- Mailbox drops within a set radius around the project, distributing the monthly project updates and works notifications.
- Project updates on the school website containing project updates, notifications, and contact numbers.
- Project specific distribution lists that can be signed up to by members of the public who wish to receive notifications electronically

Section 4 Impact Management and Mitigation Measures

4.1 Impacts to Road Network

The potential impacts to the road network, and associated mitigation measures, are detailed in Table 3.

Impact When is Mitigation Measure to be complied with		Mitigation Measures	Reason for Mitigation Measure
Local impacts.	Prior to commencement of any works	Sufficient communication measures as documented in Section 3.5 are to be implemented.	To ensure nearby neighbours are well-informed of any project updates
Construction traffic increases traffic volumes on road network	During works	Construction traffic movements are to be scheduled outside traffic peak periods and outside school pick up and drop off times where possible.	To ensure construction traffic does not impact the existing traffic
No on-site construction worker parking due to site constraints	Prior to commencement of any works	Construction workers will not be able to park inside the construction site or in the staff car park. Hence, utilising public transport will be a high priority. In the event some workers drive to the site, a strategy to minimise on-street parking will be further investigated once a contractor has been appointed and will be included in a detailed CTMP. Recommendation to the mitigation measure is further detailed in Section 4.4.	To ensure parking does not affect local residents or the surrounding road network

4.2 Impact to Pedestrian and Cyclists

The potential impacts to the pedestrian network, and associated mitigation measures, are detailed in Table 4.

Impact	When is Mitigation Measure to be complied with	Mitigation Measures	Reason for Mitigation Measure	
	Prior to commencement of any works and during works	Construction works are to be staged and/or managed (e.g. contraflow movements) to maintain pedestrian and cyclist flows.	To ensure	
Impacts on cyclists / pedestrians during construction		Any construction vehicle movements will be monitored and controlled to ensure pedestrian and cyclists safety.	pedestrians / cyclist safety during the works	
		Any road closures (if required) to be coordinated with Transport for NSW and Council.		
Impacts to Moss Street footpaths		Pedestrians to be diverted to appropriate locations either in the kerbside parking lane (with suitable barrier protection) or on the opposite side of the road (with suitable crossing points provided).	To ensure pedestrian	
during construction works	During works	Traffic controllers to supervise and manage construction vehicle movements entering and exiting the site to ensure the safety of nearby pedestrians. These movements are required to occur outside the school pick-up and drop-off times.	safety during the works	
Materials lifting / construction activities when the school is in operational.	During works	Appropriate hoarding and site fencing to be provided at site boundary.	To ensure the school student's safety during the works	

Table 4: Construction Impacts to the Pedestrian Network

4.3 Impacts to Public Transport

As vehicular activity in the construction area will not occur during school zone hours, there are unlikely to be any adverse impacts on the operations or accessibility to public transport and the existing bus zone on Kleins Road. The exact impacts and any necessary mitigation measures will be assessed in detail once a Contractor is on board and a detailed CTMP is prepared.

4.4 Impacts to On-Street Parking

Construction employees will not be able to park inside the construction site or in the staff car park within the school grounds. Workers will be briefed during their induction to utilise public transport options and car-pooling to travel to/from the site. The following mitigation measures are recommended to ensure impacts to local residential streets are limited:

- Workers to be provided with a Travel Access Guide containing information on available public transport options and transport planning
- Workers recommended and reminded to carpool where possible
- Preferred parking locations should be advised to workers, to reduce impacts to residents for those workers that do choose to drive
- No workers to park within 100 metres of the school boundary (to ensure parking availability and to reduce impact to drop off and pick up periods)
- Workers recommended to park away from the pick up and drop off areas to avoid additional congestion
- Workers must follow all on-street regulatory signage including drop off and pick up zones around the school

Whilst not recommended, there are available unrestricted on-street parking spaces located greater than 100 metres from the school site. Based on site observation, the local roads e.g. Allambie Avenue, Kleins Road, Lombard Street, and Moxhams Road surrounding the site have available on-street parking which could be utilised by workers. However, travelling by private vehicle is discouraged, and workers are strongly encouraged to utilise alternatives such as public transport or active travel modes. The area is well-connected to the public transport network, including the bus network along Windsor Road that connects to the train network at Parramatta Station. The nearest public bus stop is located approximately 7 minutes walk to/from the school site along Windsor Road.

Section 5 Conclusions

In summary, this preliminary CTMP has been prepared as part of the preliminary construction works for the proposed upgrades to Northmead Public School. The plan aims to assess and address the construction traffic impacts of the proposed development and define the necessary management process and mitigation measures for construction of the project.

The proposed traffic management arrangements recommended in this plan satisfy the requirements of TfNSW Traffic Control at Work Sites Manual, AS 1742.3 and AS 2890.2, and the plan seeks to minimise the impact of construction activities on the surrounding community, in terms of both vehicle traffic and pedestrian amenity. It is important to reiterate this plan is preliminary in nature and is required to be updated once a contractor has been appointed.

Appendix A Construction Vehicle Swept Path



0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8m

1:10 A1 1:20 A3

12.5m HRV EXIT FROM SITE

STRUCTION ZONE

10- 11 D

Architect FULTON TROTTER Suite 904, Level 9, 28-36 Foveaux Street Surry Hills NSW 2010



Sheet Subject

12.5m HRV SITE ENTRY & EXIT SWEPT PATH

Job No Drawing No 231617 TTW-00-DR-TR-00001 1 Plot File Created: Feb 20, 2025 - 11:40am

Scale : A 1:400

Authorise





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THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01

12.50

6.85

VEHICLE BODY CLEARANCE

ENVELOPE

meters

: 2.50

: 2.50

: 6.0

: 36.7

SWEPT PATH LEGEND:

VEHICLE DIRECTION -

NOTE: 600mm CLEARANCE IN ACCORDANCE WITH AS2890.2

2.20

HRV

Width

Track

Lock to Lock Time

Steering Angle



MP MP 20/02/2025

MP MP 24/01/2025

Eng Draft Date Rev Description

1 ISSUE FOR REF SUBMISSION

P1 PRELIMINARY

Rev Description

12.5m HRV CIRCULATION EXIT

STREET, STREET

Same Prove Print Print Print

CONSTRUCTION ZONE

A REAL PROPERTY OF A REAL PROPER

 \rightarrow

Architect FULTON TROTTER Suite 904, Level 9, 28-36 Foveaux Street Surry Hills NSW 2010

Eng Draft Date

Eng Draft Date Rev Description





12.5m HRV CIRCULATION ENTRY & EXIT SWEPT PATH

231617 TTW-00-DR-TR-00002 1 Plot File Created: Feb 20, 2025 - 11:45am

Drawing N

THIS DRAWING HAS BEEN PREPARED USING COLOUR

Scale : A' 1:400

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Track

Lock to Lock Time

Steering Angle

: 2.50

: 6.0

: 36.7

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