

Blast assessment from LPG storage at Service Centre on proposed New High School for Medowie

For NSW Department of Education

24 January 2025



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Contents

Notation	5
1 Introduction	6
1.1 The Proponent.....	6
1.2 Site Location	6
1.3 LPG Storage at Petrol station.....	9
1.4 Study Scope	9
2 Outline of Proposed Activity	11
3 Hazard Identification	13
3.1 LPG Inventories at the Petrol Station	13
3.2 Liquid Fuels at the Petrol Station	13
3.3 LPG Release Consequences	13
3.3.1 LPG Releases.....	13
3.3.2 LPG Fires	13
3.3.3 Boiling Liquid Expanding Vapour Explosion (BLEVE).....	14
3.3.4 Vapour Cloud Explosion (VCE)	14
3.4 LPG Release Scenarios Modelled.....	14
3.5 Gasoline Pool Fire	14
3.6 Consequence Analysis Results	15
3.6.1 LPG Flash Fires.....	15
3.6.2 BLEVEs	17
3.6.3 Vapour Cloud Explosions	19
4 Conclusions and Mitigation Measures	21
4.1 Conclusions.....	21
4.2 Mitigation Measures	21
5 References	22

List of Figures

Figure 1: Medowie HS Location Map.....	7
Figure 2: HS Site and Surrounding Land Uses	8
Figure 3: LPG Storage at Petrol station	9
Figure 4: Medowie HS Layout	12
Figure 5: Flash Fire Contours for 8.5 kg Cylinder Rupture	16
Figure 6: Flash Fire Contours for 210 kg Cylinder Rupture	16
Figure 7: Lethality Contours for 8.5 kg LPG Cylinder BLEVE	18
Figure 8: Lethality Contours for 210 kg LPG Tank Cylinder BLEVE.....	18
Figure 9: Explosion Overpressure Contours for 210 kg LPG Cylinder Rupture	19

List of Tables

Table 1: LPG Storage	13
Table 2: Release Sources based on Isolatable Inventory	14
Table 3: Gasoline Delivery Pool Fire Consequences	15
Table 4: Flash Fire Results.....	15

Table 5: Consequence Results for LPG Cylinder BLEVE.....	17
Table 6: Distances to Lethality Levels from LPG Cylinder BLEVE	17
Table 7: Distances to Lethality Levels from LPG Cylinder BLEVE	19

Notation

Abbreviation	Description
BLEVE	Boiling Liquid Expanding vapour Explosion
DoE	NSW Department of Education
DP	Deposited Plan
EP&A Act	Environmental Planning and Assessment Act
ha	hectares
HS	High School
kg	kilograms
km	kilometres
kPa	Kilopascals
kW/m ²	Kilowatts per square metre
L	Litres
LFL	Lower Flammability Limit
LGA	Local Government Area
LPG	Liquefied Petroleum Gas
m	metres
m/s	Metres per second
PTS	Permanent Teaching Space
REF	Review of Environmental Factors
T&I SEPP	Transport and Infrastructure State Environmental Planning Policy
VCE	Vapour Cloud Explosion

1 INTRODUCTION

The NSW Department of Education (DoE) is proposing to construct a new high school (HS) at Medowie, NSW 2318. The proposed school site is located along Abundance Road, Medowie, in the Local Government Area (LGA) of Port Stephens, approximately 34km north of Newcastle.

A petrol station operated by Pearl Energy is located adjacent to the northwestern boundary of the site on 26 Ferodale Road, Medowie. The petrol station stores Liquefied Petroleum Gas (LPG) in a bulk tank for decanting into smaller cylinders for customers, and Swap 'n' Go LPG cylinders in cages. LPG releases from the petrol station have the potential to impact on the school site.

Arriscar was invited by Colliers International Holdings (Australia) Limited (Colliers) on behalf of DoE to undertake a consequence analysis of the impact on the school infrastructure from potential LPG releases and gasoline releases during a bulk tanker unloading at the petrol station. This hazard assessment has been prepared to support a Review of Environmental Factors (REF) for the proposed New High School for Medowie (the activity). The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37A of the T&I SEPP.

The activity will be carried out at 6 Abundance Street, Medowie (the site).

1.1 The Proponent

The Department of Education (DoE) is the proponent and determining authority pursuant to Section 5.1 of the *Environmental Planning and Assessment Act 1979* (the Act).

1.2 Site Location

The proposed new HS for Medowie site address is 6, Abundance Road, Medowie, NSW 2318. A location map of the site is shown in Figure 1, with the nearby petrol station, also outlined in Figure 1.

Figure 1: Medowie HS Location Map



Source: Google Earth Maps

A map of the site and surrounding areas is shown in Figure 2 ([Source NBRIS](#)) Ref.[1].

The site is 6.51ha in area, and comprises 1 allotment, legally described as Lot 3 in DP788451.

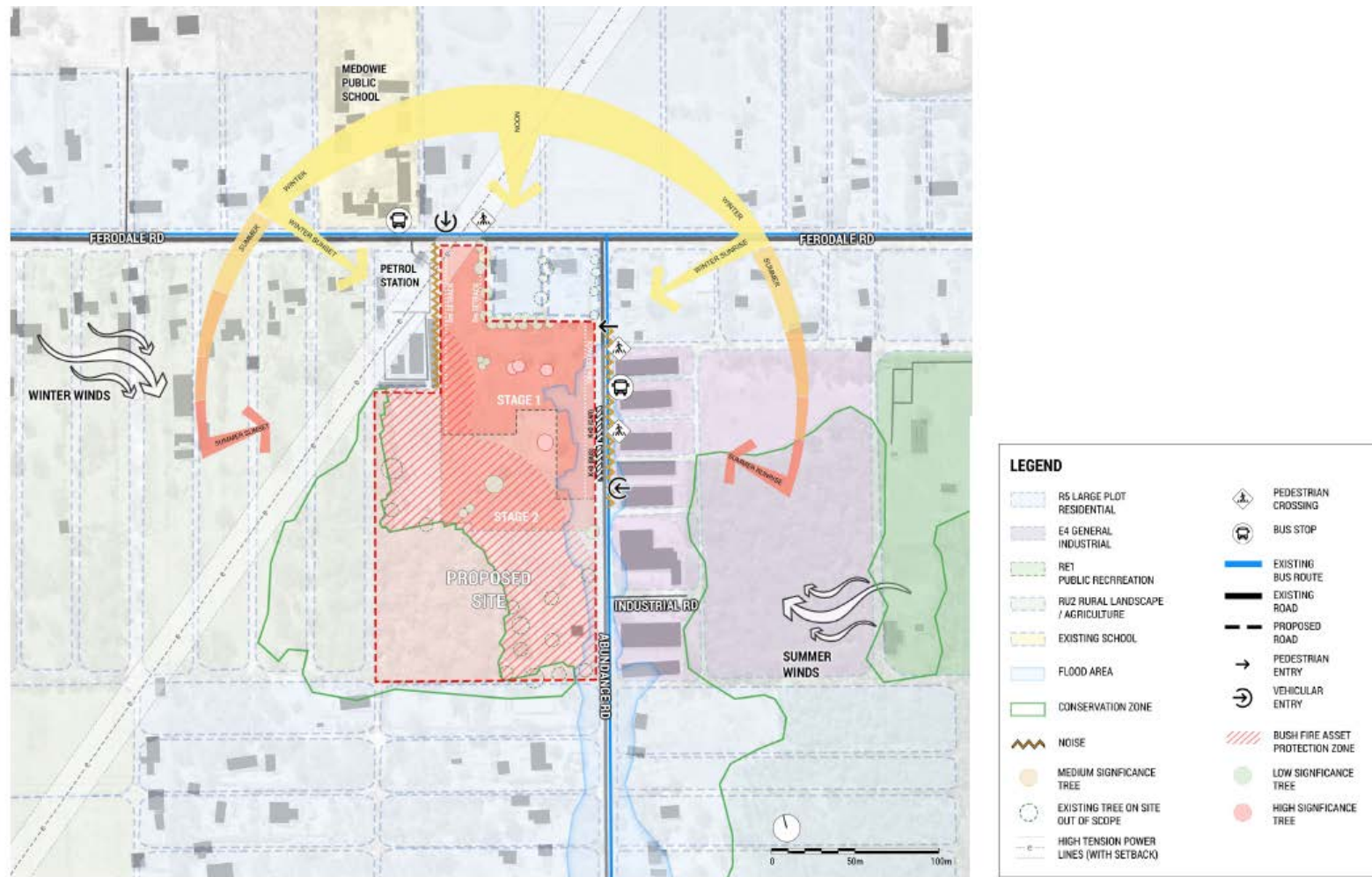
A large proportion of the site is currently unused and vacant. A small shed structure and caravan are located adjacent to the northern boundary. A cluster of buildings including a single storey dwelling, an outhouse/shed structure and temporary greenhouse are located within the southeastern corner.

The site contains a largely vegetated area to the southwest corner. The site is relatively flat with a gradual fall from west to east toward Abundance Road.

The site has a primary frontage to Abundance Road to the east and Ferodale Road to the north. Abundance Road and Ferodale Road are both classified Local Roads. Medowie Road, approximately 1km east of the site, is a classified Regional Road.

The area surrounding the site mostly consists of industrial, rural residential, educational, and agricultural lands. Adjacent to the northwestern boundary is a Shell petrol station and mechanic garage. Adjacent to the northeastern boundary is a medical health clinic. Across Abundance Road along the eastern boundary are a number of warehouse and light industrial developments. Directly north of the site across Ferodale Road are large lots used for agricultural purposes. Medowie Public School is located on Ferodale Road, to the northwest of the site, opposite the Shell petrol station.

Figure 2: HS Site and Surrounding Land Uses



1.3 LPG Storage at Petrol station

The LPG storage consists of the following:

Two (2) small tank cylinders each 420L (210 kg) capacity. Portable cylinders will decant LPG from these containers. The decanting is done by a trained petrol station operator. The storage containers are filled in situ by LPG tankers, using the pump on the LPG tanker truck.

Two (2) cages of Swap 'n' Go cylinders, each with a capacity of approximately 40 cylinders per cage with a maximum capacity of 4.5 kg of LPG in each cage. The Swap 'n' Go are supplied by the LPG supplier on flat top trucks. These cylinders are not opened, and exchanged by customers by returning used cylinders. The LPG supplier replaces the empty cylinders with full cylinders.

The LPG storage is shown in Figure 3. The LPG tank cylinders and the Swap 'n' Go cylinder cages are highlighted the figure.

Figure 3: LPG Storage at Petrol station



1.4 Study Scope

The scope of the study included undertaking a consequence analysis of potential fires and explosions from the LPG storage at the petrol station, and impact on the new HS for Medowie infrastructure.

This study mainly focuses on the following:

- Identification of LPG release hazards from the petrol station on 26 Ferodale Road, Medowie;
- Development of appropriate and relevant representative gas release scenarios that may impact on the school site;
- Quantification of the consequences of harmful effects for each representative scenario (fires, explosions, exposure to unignited gas), including the potential for impact on the proposed activity;

- Generation of consequence contours superimposed on the site layout to assess the effects on land use safety, suitability and any mitigation measures required to address potential impacts.

2 OUTLINE OF PROPOSED ACTIVITY

The proposed activity involves the construction of school facilities on the site for the purpose of the New High School for Medowie. The site contains a densely vegetated area to the southwest corner which is identified as land with high biodiversity values corresponding to the areas of remnant native vegetation (PCT 3995 – Hunter Coast Paperbark-Swamp Mahogany Forest). The existing dwelling house and other structures on the site will be demolished as part of the works. No other works are proposed within this area.

The proposed new school will accommodate 640 students in 29 permanent teaching spaces including 3 support teaching spaces across 3-storeys of buildings on the site. The proposed activity be delivered across 1 stage, and will consist of the following:

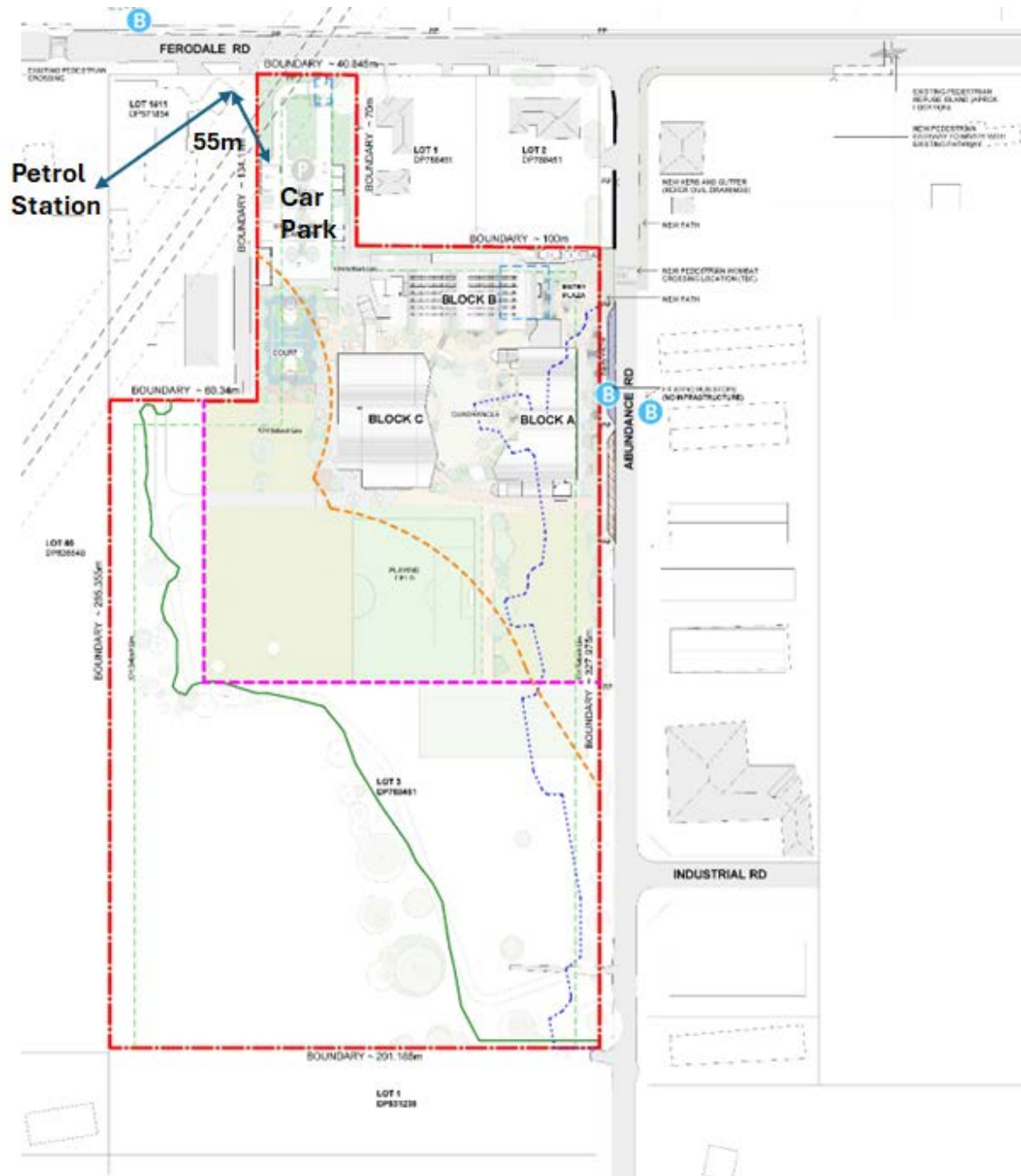
29 permanent teaching spaces including 3 support teaching spaces, to accommodate 640 students and school hall to accommodate 1,000 students. Approximately 10,500 sqm of GFA is proposed.

- Main vehicular ingress and egress to Ferodale Road to the north, with a new pedestrian and vehicle crossing proposed.
- Main pedestrian access to Abundance Road.
- Kiss and ride, and bus drop and pick up areas to Abundance Road (6 x parallel spaces).
- New pedestrian wombat crossing to Abundance Road
- Approximately 55 x car parking spaces and 3 x accessible car parking spaces.
- Approximately 70 x bicycle parking spaces.
- Block A (Admin) consisting of administration and learning spaces.
- Block B (Foodtech/Workshop) consisting of food technology rooms and workshops.
- Block C (Hall) consisting of school hall to accommodate 1,000 students.
- Central quad, 1 playing field, and 1 sports courtyard.

The proposed school development will include general learning spaces, General support learning spaces, administrative services, staff areas, gym and canteen, library areas for science, wood and metal, food and textiles, health PE, performing arts, additional learning spaces, student amenities, storage, movement (stairs and covered walkways).

A preliminary layout is shown in Figure 4.

Figure 4: Medowie HS Layout



Adjacent to the petrol station is the school entry driveway and car park. The nearest school buildings from the LPG storage are:

Wood workshop: 100m

Hall: 110m

The nearest car parking space from the LPG storage is 55m away.

3 HAZARD IDENTIFICATION

3.1 LPG Inventories at the Petrol Station

The maximum quantities of LPG stored at the petrol station are listed in Table 1 below. The actual quantities will vary depending on demand and deliveries.

Table 1: LPG Storage

No.	Description	Maximum Capacity kg
1	Tank Cylinders (2x 210 kg cylinders next to each other fronting Ferodale Road)	420
2	Swap 'n' Go cylinders (8.5kg cylinders x approximately 40 per cage) in 2 cages	680
Total		1100

3.2 Liquid Fuels at the Petrol Station

Liquid fuels stored for dispensing at the petrol station are gasoline and diesel. These liquids are stored in underground tanks and pose no risk to the school site.

If there is a spill of gasoline during bulk tanker deliveries to the petrol station, and ignition occurs, a pool fire would result with thermal radiation affecting the school site. Unloading is by gravity and a potential release source is a rupture of transfer hose.

3.3 LPG Release Consequences

3.3.1 LPG Releases

An LPG release could occur from the following:

- A release from the cylinder nozzle from valve failure. This release is very small and confined within a few meters of the release.
- A rupture of the cylinder. The cylinders are certified pressure vessels. These are inspected before filling at the distribution centre and unlikely to fail. The 8.5 kg cylinders are also protected in a cage.
- Overfill of in situ 210 kg tank cylinder during refill from road tanker. The filling is carried out by trained and licensed tanker driver who watches a bleed valve and stops filling when required fill level is reached.
- Overfill of smaller cylinders during decanting from tank cylinders. The decanting is done by trained petrol station operator and not by the customer.

3.3.2 LPG Fires

Two types of fires are possible with LP Gas.

- 1 A jet fire. This could occur if a gas leak or a 2-phase leak from a pipe/ vessel/ equipment is ignited.

- 2 A flash fire. A flash fire is the result of ignition of a well mixed air-LPG cloud. An LPG leak would evaporate and disperse into atmosphere forming a flammable air-vapour mixture. If ignited, depending on the degree of congestion and confinement in the flame front, a vapour cloud explosion may result. In its absence, a flash fire would be the result.

3.3.3 Boiling Liquid Expanding Vapour Explosion (BLEVE)

BLEVE is a phenomenon experienced only with liquefied flammable gases such as LPG, stored under pressure above their atmospheric boiling points. A fire impinging on an LPG cylinder can weaken the tank wall, and allow the boiling LPG at high pressure to expand into the atmosphere generating high explosive energy, and resulting in a fireball. Even though the BLEVE is, by definition an explosion, the thermal radiation effect of the fireball would have an impact at longer distances than the flying fragments from the explosion effects.

A BLEVE at stored LPG cylinders is possible if a jet fire impinges on an adjacent cylinder.

3.3.4 Vapour Cloud Explosion (VCE)

If a liquefied flammable gas is released to atmosphere, there is a possibility that the ignition of the flammable cloud may result in an explosion, and it is referred to as a Vapour Cloud Explosion (VCE). For a VCE to occur the cloud must have sufficient mass and confinement.

The partial confinement areas for LPG dispersion are located throughout the facility at the Tanker loading/unloading bay, Swap 'n' Go filling area, and stacked cylinder storage pallets.

3.4 LPG Release Scenarios Modelled

The focus in this study is the impact of LPG release from the cylinders on the proposed school buildings. Therefore, only the worst case releases were modelled, as listed in Table 2

Table 2: Release Sources based on Isolatable Inventory

Event No.	Description	Maximum Release Quantity, kg
1	Rupture of 210 kg tank cylinder	210
2	Rupture of 8.5 kg cylinder	8.5
3	BLEVE of 210 kg tank cylinder	210*
4	BLEVE of 8.5 kg cylinder	8.5*

*At the time of BLEVE, the inventory would be lower as some gas would have escaped through the relieve valve. Full inventory was modelled as the worst case.

3.5 Gasoline Pool Fire

In the event of a hose failure, gasoline would spill to ground and spread into a pool. If the pool is ignited, the resulting pool fire will radiate heat to the surrounds.

An analysis was undertaken to assess the impact of a gasoline pool fire from tanker unloading at the petrol station on the school site.

The pool fire thermal radiation distances are given in Table 3.

Table 3: Gasoline Delivery Pool Fire Consequences

Scenario	Pool diameter (m)	Flame emissive power (kW/m ²)	Distance to specified thermal radiation (m)		
			4.7 kW/m ²	12.5 kW/m ²	37.5 kW/m ²
Unloading Tanker Hose	12.0	107.0	31.0	17.9	9.7

3.6 Consequence Analysis Results

Consequence calculations were made using the software Safeti 9.0 (run in consequence mode).

3.6.1 LPG Flash Fires

LPG release dispersion calculations were carried out with the Safeti 9.0 software. LPG was modelled as propane. The lower flammability limit for propane is 2.1% (v/v) in air.

Three wind speed/ weather stability classes were analysed as the weather condition influences the dispersion distance (1.5m/s for stability D and F, and 5m/s for stability D). Distances to [Lower Flammability Limit](#) (LFL) were calculated at ground level as the gas is heavier than air and slumps to ground). The F stability occurs only at night time when the school is unoccupied.

The dispersion distances to LFL results are listed in Table 4.

Table 4: Flash Fire Results

No.	Event	Distance to LFL, m					
		D1.5		D5		F1.5	
		LFL	½ LFL	LFL	½ LFL	LFL	½ LFL
1	8.5 kg cylinder rupture	2.6	4.2	2.6	9.3	4	3.7
2	210 kg tank cylinder rupture	12	47	10	58	20	38

The distances to LFL and ½ LFL for 8.5 kg LPG cylinder rupture is shown in Figure 5.

The contours in Figure 5 represent the effect of the flashfire in all possible wind directions, known as the “Effects” contour. In reality, the actual contour would only be a fraction of the circle shown, in the downwind direction.

Flash fire would occur in the flammable cloud within the LFL envelope. The contour for ½ LFL is shown because there is a potential for ignition of the cloud within that contour, if an ignition source exists.

Figure 5: Flash Fire Contours for 8.5 kg Cylinder Rupture



The following findings are made:

- The distances to LFL or $\frac{1}{2}$ LFL from rupture of 8.5 kg LPG cylinder do not reach the school boundary.
- A flash fire from an 8.5 kg LPG cylinder rupture would have no impact on the proposed school site.

The distances to LFL and $\frac{1}{2}$ LFL for 210 kg LPG tank cylinder rupture is shown in Figure 6.

Figure 6: Flash Fire Contours for 210 kg Cylinder Rupture



The following findings are made:

- The distance to LFL from rupture of 210 kg LPG tank cylinder rupture reaches the corner of the school entry driveway from Ferodale Road, but would not reach any buildings or open areas/ play space.
- The distance to ½ LFL from rupture of 210 kg LPG tank cylinder rupture covers part of the car park, but would not reach any buildings.
- A flash fire from a 210 kg LPG tank cylinder rupture would have no impact on the proposed school buildings.

3.6.2 BLEVEs

The BLEVE (fire ball) thermal radiation consequences are summarised in Table 5.

Table 5: Consequence Results for LPG Cylinder BLEVE

No.	Event	Fireball Diameter m	Duration, s	Distance to thermal radiation, kW/m ² (m)		
				4.7	12.5	23
1	8.5 kg cylinder rupture	11.5	1.5	30	18	13
2	210 kg tank cylinder rupture	33	3.3	93	57	41

BLEVE consequences were expressed as distances to lethality at different levels. These are summarised in Table 6.

Table 6: Distances to Lethality Levels from LPG Cylinder BLEVE

No.	Event	Distance to Lethality (m)		
		1%	10%	100%
1	8.5 kg cylinder rupture	2	N.R.	N.R.
2	210 kg tank cylinder rupture	19	14	N.R.

Lethality contours for 1% and 10% lethality levels for 8.5 kg cylinder BLEVE are shown in Figure 7.

Figure 7: Lethality Contours for 8.5 kg LPG Cylinder BLEVE



- The distance to 10% lethality from an 8.5 kg LPG cylinder BLEVE is not generated.
- The distance to 1% lethality from an 8.5 kg LPG cylinder BLEVE is localised within the petrol station.
- A BLEVE of an 8.5 kg LPG cylinder rupture would have no impact on occupied areas of the proposed school site.

The lethality contours for a 210 kg tank cylinder BLEVE are shown in Figure 8.

Figure 8: Lethality Contours for 210 kg LPG Tank Cylinder BLEVE



- The distance to 1% lethality from a 210 kg LPG tank cylinder BLEVE is at the school site boundary on Ferodale Road.
- The distance to 10% lethality from a 210 kg LPG tank cylinder BLEVE just reaches the car park, but does not reach any occupied areas.

- A BLEVE of a 210 kg LPG tank cylinder rupture would have no impact on occupied areas of the proposed school.

3.6.3 Vapour Cloud Explosions

VCE blast effects are normally assessed at the following overpressure levels [2]:

- 7 kPa – Damage to internal partitions and joinery, but can be repaired. Probability of injury is 10%. No fatality.
- 14 kPa – Structural damage. House uninhabitable and badly cracked. Injury to exposed people.
- 21 kPa – Reinforced structure could distort. 20% chance of fatality indoors.
- 35 kPa – Severe damage to structures. 50% chance of fatality indoors and 15% chance of fatality for a person in the open.

No explosion overpressure contours were generated for 8.5 kg cylinder rupture, indicating that there would be no impact on the school.

The explosion results for 210 kg tank cylinder explosion are summarised in Table 7.

Table 7: Distances to Lethality Levels from LPG Cylinder BLEVE

No.	Event	Distance to Overpressure, kPa (m)		
		7	14	21
1	210 kg cylinder rupture	69	40	30

The explosion overpressure contours for 210 kg tank cylinder rupture are shown in Figure 9.

Figure 9: Explosion Overpressure Contours for 210 kg LPG Cylinder Rupture



The following observations can be made:

- The 14 kPa and 21 kPa overpressure contours do not reach the car park (55m away) and a VCE would not cause damage to parked cars.
- No explosion overpressure reaches any of the school buildings.
- A catastrophic failure of a 210 kg tank cylinder would have no blast impact on the school [site](#).

4 CONCLUSIONS AND MITIGATION MEASURES

4.1 Conclusions

The following conclusions were arrived at in the study:

1. The operation of the petrol station will have no significant impact and suitability of the site for the proposed school.
2. A rupture of a Swap 'n' Go cylinder and fire/ explosion would have localised effects within the petrol station and not impact on proposed school buildings or open areas/ play spaces.
3. A tank cylinder rupture and fire/ explosion 7 kPa overpressure would affect the proposed school access drive way on Ferodale Road and proposed school car park, but will not affect any of the school buildings, open areas/ play spaces.
4. In the event of a fire at the petrol station, **people present in** the school car park would need to be evacuated.

4.2 Mitigation Measures

Mitigation No.	Aspect	Mitigation Measure	Reason for Mitigation Measure
1	Prior to school operations commencement	<p>Liaise with the petrol station operator to inform the school in the event of an emergency at the petrol station, so that evacuation of people present in the school car park can be initiated if necessary.</p> <p>This procedure can be part of the school site emergency plan.</p>	LPG release from petrol station

There are no mitigation measures required for the rest of the activity.

5 REFERENCES

- [1] NBRS & Partners Pty Ltd, "Medowie HS Masterplan Validation Report," NSW Government/ Colliers, 29 May 2024.
- [2] NSW Department of Planning, "Hazardous Industry Planning Advisory Paper No.6 - Hazard Analysis," Sydney, 2011.



REF Review Checklist

Template Reference: DOC24/3137063 Revision 1 December 2024

Project details

Project name:	Medowie High School
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Purpose and limitations

This checklist is intended to assist project and consultant teams in checking that Reviews of Environmental Factors (REF) appropriately assess a proposed activity and address legislative requirements. It seeks to address common requirements, does not address every potential environmental matter that may be relevant to a site and includes matters that will not be relevant to all sites/proposals. The project consultant town planner is responsible for identifying potential environmental impacts and assessment requirements to consider and mitigate potential impacts.

Adequacy review

Complete the table below to check that the REF and supporting technical investigations have adequately assessed the proposed activity.

Requirement	Y	N	N/A	Comments
General requirements				
Regulatory requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF include:				
• an acknowledgement of County?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• details of:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o the proposed activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o need for the activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o alternatives considered, including the do-nothing option?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o relevant planning policies, including relevant indicative layout plans, masterplans, strategic plans or Voluntary Planning Agreements apply to the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o how proposal relates to relevant legislation and policies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o related approvals required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o relevant determining authority (i.e. the NSW Department of Education)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• a description of the site (including address and lot/DP) and surrounding environment using text and plans/photos including details the environmental features and planning constraints?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• a description of land / road reserves associated with any off-site works?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• a summary of existing approvals and relevant conditions that apply to the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• for existing schools, confirmation that the proposed activity does not contravene a relevant condition of consent?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• an assessment of potential impacts of the proposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• a summary of consultation undertaken, responses received and how responses were considered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• a statement certifying that the contents are true and correct?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• a conclusion that the proposal is not likely to significantly affect the environment or threatened species, communities or habitats unless a Species Impact Statement (SIS) (for aquatic biodiversity) or (terrestrial) Biodiversity Development Assessment Report (BDAR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
has been prepared?				
<ul style="list-style-type: none"> a statement that the proposed activity qualifies as development without consent? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> a detailed response to the design quality principles set out in the T&I SEPP? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> a detailed response to the Design for Schools Guide? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> where relevant, a detailed response to any School Design Review Panel comments? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> a schedule of mitigation measures that are specific and deliverable? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the REF addressed s171 of the EP&A Reg including the environmental factors set out in the October 2024 Addendum for Consideration of environmental factors for health services facilities and schools and s171A (if the site is located in a regulated water catchment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the REF been prepared in accordance with the Part 5 Guidelines , including the October 2024 Addendum for Consideration of environmental factors for health services facilities and schools ??	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If early engagement has occurred, has the REF summarised the issues raised been summarised and set out how they have been considered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Scope Does the REF incorporate the relevant scope, including associated works such as additional infrastructure (i.e. substation, pumping stations, roadworks, stormwater etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Landowner's detail and consent If owned by 'education', does the REF note that the land is owned by the Minister for Education and Early Learning rather than the department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has landowner's consent been obtained or has the landowner been notified of the REF? Note: It is the preference Landowner's consent is to be obtained prior to lodgement. However, where this is not possible and for any public domain or road works on council land, the council must be notified of the proposed works prior to lodgement of the REF.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Title details Has a copy of the following been obtained to inform the REF:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> the certificates of title(s) for the site that is/are less than six months old? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> the deposited plan? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> any instruments or encumbrances registered over the land? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> a detailed survey plan for the site that is less than 12 months old? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Easements and encumbrances Do the survey plan, proposed site plan and civil plans:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> clearly detail existing easements and encumbrances? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> demonstrate that no buildings, works, structures, earthworks, trenches or other activities would contravene or impinge upon any easement or encumbrance over the site unless with written approval of the easement beneficiary? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Plans Does the REF reasonably depict the proposed activity in figures, plans and/or photomontages including indicative details of:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> overall layout? maximum height and footprint of buildings? elevational treatment of buildings? tree planting and general landscape treatment? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Attachments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
Does the REF list documents (with revision numbers and dates) that form part of the REF and are relied upon to assess the proposed activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF list include a list of all mitigation measures in Appendix 1?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF reference and list all figures and tables?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Terminology Does the REF use appropriate terminology for a REF:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• “activity” instead of “development”?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• “NSW Department of Education” shortened to “the department” instead of “School Infrastructure NSW” or “SINSW”?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• “Proponent” instead of “Applicant”?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• “Mitigation measures” instead of “conditions”?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transport and accessibility				
Does the REF include a Transport and Accessibility Impact Assessment (TAIA)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RTA / early consultation Does the TAIA summarise the work undertaken as part of, and the findings of, a Rapid Transport Assessment (RTA)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF summarise consultation undertaken through the Transport Working Group (TWG) process, including issues raised by transport agencies and proposed responses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Existing conditions Does the TAIA describe the existing road network, including:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• the wider state network and local network?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• speed and parking restrictions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• public transport?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• pedestrian infrastructure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• any known road safety issues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• any significant infrastructure gaps identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction traffic Does the TAIA:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• set out proposed construction vehicle routes and site access arrangements and estimated movements per day?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• include a high level assessment of / conclusion that the local road network could accommodate the movements subject to appropriate management?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• set out parking arrangements for construction workers and conclude that sufficient parking would be available on site / proposed arrangements would avoid detrimental impacts to local roads?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• set out whether works zones are required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• include a preliminary construction management plan that details management and mitigation measures to minimise impacts and ensure safety of road users and pedestrians?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operational traffic Does the TAIA:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• estimate the expected trip generation as a result of the proposed development having regard to:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ proposed number of students and staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ assumed travel mode share for the school developed having regard to:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
▪ existing mode share				
▪ proposed measures to reduce car-based travel				
▪ mode shares achieved for schools with similar use and transport characteristics?				

Requirement	Y	N	N/A	Comments
<ul style="list-style-type: none"> data from other nearby schools / previous studies and/or census data? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> expected distribution across the local road network? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> outline future surrounding roads/road infrastructure shown on a relevant Indicative Layout Plan/Masterplan and how the development responds to these? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include a SIDRA analysis (or other modelling agreed through the TWG) of key nearby intersections before the proposed development (i.e. existing) and after the development at completion and 10 years after? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include the detailed SIDRA modelling results? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include a conclusion that the SIDRA analysis (or alternative) demonstrates that the local road network can accommodate the additional traffic generated by the development? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> if there is a reduction in Level of Service (LoS) from pre to post development, does the TIA justify that this is acceptable or set out measures to mitigate the impact / accommodate the additional demand? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> identify how significant infrastructure gaps will be addressed? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include an existing conditions road safety assessment if existing road safety issues were identified? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> identify how any known safety issues will be addressed? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
School Transport Plan Has a School Transport Plan been included in the TAIA which:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> sets out measures to reduce car-based travel? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> sets achievable targets for mode shift with supporting explanation and evidence? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include provisions for the monitoring and review of the plan? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operational Parking Does the TAIA clearly set out:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> proposed car parking? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> proposed bicycle car parking? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> proposed end-of trip facilities? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the TAIA include an assessment of likely demand for parking having regard to the expected/target mode share?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If so, does the proposal meet the expected demand?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If it doesn't match expected demand, does it include information to demonstrate why this is acceptable? i.e. availability of on street parking in surrounding streets based on a parking demand survey to demonstrate spare capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the TAIA include a similar assessment of bicycle parking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Private vehicle drop-off and pick-up Does the TAIA:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> describe the proposed private vehicle drop-off and pick-up arrangements? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> identify the expected private vehicle drop-off / pick-up demand based on the expected/target mode share, number of trips / drop-offs and likely dwell time? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> assess the capacity of the existing / proposed private vehicle drop-off / pick-up areas to accommodate the above demand? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bus drop-off and pick-up Does the TAIA:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> describe the proposed bus drop-off / pick-up arrangements? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
<ul style="list-style-type: none"> identify the expected bus drop-off / pick-up demand based on the expected/target mode share and likely dwell time? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> assess the capacity of the existing / proposed bus drop-off / pick-up to accommodate the above demand? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Service and emergency vehicle access Does the TAIA: <ul style="list-style-type: none"> set out the proposed access arrangements for service vehicles (i.e. garbage and other deliveries) and emergency vehicles? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> set out any required mitigation or management measures? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> assess the above arrangements and conclude that they would not have significant impacts? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Overall assessment Does the TAIA: <ul style="list-style-type: none"> include a list of measures to mitigate the impacts of the activity? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> conclude overall, that the activity would not be likely to have significant environment impacts? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Noise and vibration				
Noise monitoring Does the REF include an Noise and Vibration Impact Assessment (NVIA)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the assessment include background noise monitoring at locations that appropriately represent the existing noise levels at nearby sensitive receivers (i.e. residences, churches, health facilities, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the background noise monitoring undertaken meet the requirements of Noise Policy for Industry (2017) i.e. at least a week with acceptable weather conditions: <ul style="list-style-type: none"> average wind speed <5 m/s? no rain or other extraneous noise? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction noise Does the assessment consider impacts from construction noise and vibration in accordance with the Interim Construction Noise Guideline?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does it: <ul style="list-style-type: none"> determine noise management levels for the development? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> predict noise levels of the proposed construction activities (usually of expected standard activities and equipment and associated noise levels given that full construction methodology will not yet be known)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> conclude whether the predicted levels would exceed the noise management levels? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> set out measures to minimise impacts to sensitive receivers, including existing school users, and ensure best practice on site? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> conclude whether construction noise would be likely to result in significant impacts? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> adopt standard construction hours set out in the ICNG or include justification where non-standard hours are proposed? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vibration Does the assessment include an assessment of potential impacts as a result of vibration during construction which: <ul style="list-style-type: none"> relevant standards and assessment criteria for human comfort, sensitive equipment and structural damage? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> details potential sources of vibration during construction having regard to typical activities and equipment 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
expected to undertake proposed construction works?				
• consider potential impacts having regard to separation distances to nearby sensitive receivers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• sets out measures to mitigate potential impacts, including existing school users?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• concludes that the proposed activity would not be likely to have significant environmental affects following mitigation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operational noise Does the assessment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• consider noise impacts from all aspects of proposed operations in accordance with the Noise Policy for Industry (2017) or Association of Australasian Acoustical Consultants Guideline for Child Care Centre Acoustic Assessment in the case of outdoor play?				
• determine noise criteria that would be applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• consider all proposed activities, including:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ indoor learning activities?				
○ outdoor play?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ use of public address system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ plant and equipment (i.e. air conditioning)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ use of the hall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ use of outdoor sports courts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• conclude that the proposal would meet the project noise trigger levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• set out mitigation measures if the proposal does not meet the trigger levels, does the assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Internal noise tenability Does the assessment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• consider external sources of noise in proximity to the site (i.e. main roads or rail corridors)?				
• detail applicable internal noise comfort criteria having regard to the EFSG?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• predict internal noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• conclude that internal noise levels would meet criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• set out any proposed mitigation measures required to meet the criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Overall assessment Does the assessment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• include a list of measures to mitigate the impacts of the activity?				
• conclude overall, that the activity would not be likely to result in significant environmental affects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF list any mitigation measures identified in the assessment and incorporate them into the design where applicable (i.e. does the design include mechanical ventilation where this is required to achieve internal comfort levels)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Biodiversity				
Does the REF include either:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• a statement from a suitably qualified ecologist that the proposed activity will not be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values, meaning a Species Impact Statement and/or Biodiversity Development Assessment Report is not required having regard to s7.8 of the <i>Biodiversity Conservation Act 2016</i> (this might include a statement that accompanies a Biodiversity Development				

Requirement	Y	N	N/A	Comments
Assessment Report (BDAR) waiver issue ahead of a previously proposed SSD application); or <ul style="list-style-type: none"> a SIS; and/or a BDAR? 				
A statement that the proposed activity is not likely to have a significant impact on matters of national environmental significance, or on the environment of Commonwealth land, and therefore referral to the Minister under the EPBC Act is not required? Note: Contact the Statutory Planning team if impacts are likely.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the development is on biodiversity certified land, does the REF include information to identify the site (using associated mapping) and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF list any mitigation measures identified in the assessment and incorporate them into the design where applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Flooding				
Flood Hazard Does the REF include either: <ul style="list-style-type: none"> information that demonstrates that the site and key access routes are free of flood risk; or a Flood Risk and Impact Assessment (FIRA)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If a FIRA has been prepared, does it: <ul style="list-style-type: none"> state that it has been prepared in accordance with the updated Floodplain Management Manual and Toolkit, including Planning Circular PD24-001? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> detail consultation undertaken with the local council and any relevant agencies (i.e. State Emergency Service) to identify existing, draft and proposed flood studies relevant to the site? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> describe the flood potential of the site and key access routes having regard to available flood studies and information, the conditions of the site, and the types of flood: <ul style="list-style-type: none"> mainstream flooding? overland flows? flash flooding? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> describe the key flood mechanisms? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include flood modelling showing flood extent, levels, depths, velocities and hazard classifications for all relevant events, including: <ul style="list-style-type: none"> 1% AEP / 1 in 100yr? 5% AEP / 1 in 20yr? 10% AEP / 1 in 10yr? 0.2% AEP / 1 in 500yr? 0.02% AEP / 1 in 5000yr? PMF? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> consider the timeframe for flood waters to inundate the site and timeframe for water to hit peak levels? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> consider the impacts of climate change on future flood frequency and levels? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Risk / impact of flood on the activity If a FIRA has been prepared, does it: <ul style="list-style-type: none"> determine whether the proposal is in a high-risk catchment? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> the location of the proposal in relation to flood behaviour and constraints including floodway, flood storage area or flood fringe area? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
• the hazard vulnerability classification of the land?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• frequency of inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• whether the proposal provides for safe occupation and efficient and effective evacuation in flood events and how it is to be achieved?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• in high-risk catchments, whether the proposal is likely to result in a significant increase to the risk to life in other parts of the catchment in a PMF flood event?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• any known evacuation constraints such as the flood emergency response classification for the area and available warning times (including rate of rise and when the evacuation route is cut off by floodwater)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• whether the proposal is for a sensitive or hazardous land use, or other higher risk uses and what mitigation strategies (if any) are proposed to reduce any identified risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Impact of the activity on flood outside of the site If a FIRA has been prepared, does it address the matters to consider set out in PS-24-001, including has it determined:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• potential impacts of cut and fill and other building works on flood behaviour?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• whether there may be adverse flooding impacts on surrounding properties?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• ability of proposed development to withstand flood impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Building and structure design If a FIRA has been prepared, does it:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• nominate a flood planning level (minimum floor level plus freeboard) for proposed buildings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• recommend any other mitigations such as flood resistant materials or structural requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FERP If the site or key access routes are impacted by flood waters, does the REF include a preliminary Flood Emergency Response Plan (FERP) that has been prepared in consultation with NSW SES?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the plan clearly and simply detail:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• the flood potential of the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• detail roles and responsibilities across the department and relevant emergency response agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• flood monitoring and warning systems consistent with advice received to date from NSW SES?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• flood warning times and notifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• emergency management triggers, including rainfall and water levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• the emergency response to a flood event or events where different flood mechanisms impact a site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• messaging and communication protocols?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• assembly points and flood free routes (where required)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• shelter in place locations (where required as last resort) that are able to withstand flood and debris forces of the PMF?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• mechanisms and requirements for regular review?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• awareness training for employees, contractors, visitors, students and caregivers and induction of new staff members?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Conclusion Does the FIRA:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• conclude that the proposal would not be likely to result in significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
<ul style="list-style-type: none"> list any mitigation measures identified in the assessment? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF list any mitigation measures identified in the assessment and incorporate them into the design where applicable (i.e. flood resistant structures and materials)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bushfire				
Does the REF include either: <ul style="list-style-type: none"> information that demonstrates that the site is not mapped as bushfire prone and is not adjacent to a potential bushfire hazard; or a Bushfire Assessment (BA)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If a BA has been prepared, does it: <ul style="list-style-type: none"> assess the immediately adjoining bushfire hazard in accordance with Planning for Bush Fire Protection (PBP)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> consider bushfire in the wider landscape context and potential impacts to key access routes or surrounding communities that may impact the activity? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> identify bushfire protection measures required under PBP? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> confirm if the activity can comply with the required bushfire protection measures, including: <ul style="list-style-type: none"> provision of minimum asset protection zones (APZs) with all buildings outside of the APZs? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> minimum construction requirements for buildings? <p>Note:</p> <ul style="list-style-type: none"> Table 2, Appendix B of the Addendum November 2022 to PBP requires school buildings on bushfire prone land to be built to a minimum of BAL-19. The NSW RFS has advised that BAL-Low does not apply to school and similar developments under PBP. If the consultant considers that no construction standard applies, the report should state 'no requirements' in order to avoid further information requests from the NSW RFS. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> access roads? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> provision of a perimeter road between the buildings and the bush fire hazard? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> water provision? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> design of utilities? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> emergency management arrangements? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> landscaping? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Conclusion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the BA: <ul style="list-style-type: none"> conclude that the proposal would not be likely to result in significant environmental effects? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> list any mitigation measures identified in the assessment? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF list any mitigation measures identified in the assessment and incorporate them into the design where applicable (i.e. APZs, BAL-19 construction)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Contamination				
Have either of the following been prepared to inform the REF: <ul style="list-style-type: none"> a Preliminary Site Investigation (PSI) and/or Detailed Site Investigation (DSI) that conclude that there is a low risk of contamination and that the site is suitable for the use of the site as a school; or a PSI and/or DSI and a Remediation Action Plan (RAP)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the PSI, DSI and RAP address all the potential sources of contamination mentioned in the various report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the DSI or RAP identifies that limited further testing is required, has this been incorporated as a mitigation measure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
in the REF?				
If remediation is required, does the REF determine if the remediation is Category 1 or 2 having regard to the Hazards and Resilience SEPP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF include an interim statement from a Site Auditor confirming that the RAP is appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If no interim statement, does the RAP set out actions to remediate all potential sources of contamination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF summarise investigations undertaken and conclude that contamination risk has been appropriately addressed in accordance with the Hazards and Resilience SEPP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the PSI, DSI and/or RAP concluded that the proposal would not be likely to result in significant environmental effects as a result of contamination and/or contamination management?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF list any mitigation measures identified in the assessment and incorporate them into the design where applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Environmental heritage				
Heritage items If: <ul style="list-style-type: none"> any portion of the site is a listed heritage item on the department's s170 register, in the Local Environmental Plan (LEP) or on the State Heritage Register (SHR); or there is a place listed on any s170 register, LEP or SHR immediately near the site; or the school site in a heritage conservation area; or the site has been previously assessed as having heritage significance even if no statutory listing has been provided; has a heritage impact statement (HIS) been prepared to support the REF?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If a HIS has been prepared, does the HIS: <ul style="list-style-type: none"> provide a clear assessment of heritage significance against the NSW guidelines for Assessing Heritage Significance? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include an assessment of the degree of impact (physical and visual) to identified heritage items? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> assess the impacts of the proposal to be less than minimal? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> detail consultation with council if the impacts were assessed as more than minimal? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> identify whether additional Heritage Act approvals (s60 permits) are required if the item is on the SHR? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include adequate project justification and analysis of design options to show that the heritage impacts were not avoidable (if the impacts were assessed as more than minimal)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> set out appropriate mitigation measures? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Archaeology Does the REF and/or HIS: <ul style="list-style-type: none"> consider the potential for archaeological relics either in a HIS or through existing regional planning documentation or similar? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include an evidence-based archaeological assessment, including a clear grading of the potential for archaeological remains to be identified, and what their archaeological significance is? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If an archaeological assessment was undertaken has: <ul style="list-style-type: none"> the assessment been informed by historic archaeological 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
test excavation (where necessary)?				
<ul style="list-style-type: none"> the assessment identified impacts to archaeological relics? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> archaeological monitoring or test excavation been proposed under a self-approved s139(4) Exception, and if so, has an Exception Record of Use Form been submitted and signed? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> is a permit under the Heritage Act (s140 / s60), approved by Heritage NSW, required to authorise impacts to relics? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> set out appropriate mitigation measures required to give effect to any mitigations from the archaeological assessment? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Aboriginal cultural heritage				
Does the REF either include: <ul style="list-style-type: none"> confirmation that the activity does not include ground disturbing works or removal of mature vegetation; or an Aboriginal Cultural Heritage Due Diligence (DD), a Preliminary Indigenous Heritage Assessment Impact (PIHAI) and/or an Archaeological Survey Report (ASR) which identifies no harm to Aboriginal objects or places would occur; or an Aboriginal Cultural Heritage Assessment Report (ACHAR)? Note: where a DD / PIHAI / ASR has been prepared and it identifies that Aboriginal objects or places are likely to be impacted, an ACHAR must be prepared.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Where an ASR has been prepared, has it assessed the archaeological nature and significance of Aboriginal sites within the study area (through survey / test excavation)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Where an ACHAR has been prepared, has it been undertaken in accordance with the OEH consultation guidelines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Where an ACHAR has been prepared, has it completed the mandatory steps, including: <ul style="list-style-type: none"> agencies contacted to identify relevant parties; an advert placed in local paper to invite registrations of interest; invitations to register issued to potential stakeholder groups; methodology issued to RAPs and invited to comment; and draft ACHAR sent to RAPs and invited to comment? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Where an ACHAR has been prepared: <ul style="list-style-type: none"> have all comments provided by RAPs been addressed and actioned (where possible) in the ACHAR? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> did the ASR or ACHAR assess the archaeological nature and significance of Aboriginal sites within the study area (through survey / test excavation)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> assess impacts of the proposed works? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> indicate that an Aboriginal Heritage Impact Permit (AHIP) is required? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the REF and/or supporting documents: <ul style="list-style-type: none"> included a list of measures to mitigate the impacts of the activity? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> concluded that the proposal would not be likely to result in significant environmental effects? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Built form and urban design				
If the project has a value over \$50M, has it been presented at School Design Review Panel (SDRP)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If presented to SDRP, have comments from the Panel been:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
<ul style="list-style-type: none"> summarised in the REF / Design Report? 				
<ul style="list-style-type: none"> appropriately considered, incorporated into the design (where appropriate) and responded to in the REF / Architectural Design Report? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the Design Report: <ul style="list-style-type: none"> explain how the proposed layout, building and facade design appropriately considers and respond to the existing / likely future / preferred character of the streetscape? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> address the design quality principles in the T&I SEPP and the design principles set out in the Design Guide for Schools? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> explain how the height of the proposed development is appropriate in consideration of the site context and form of surrounding development? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Environmental amenity				
Overshadowing				
Does the REF:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> include shadow diagrams? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> discuss impacts from overshadowing impacts? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> conclude that the proposal would have no significant impacts? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> if the proposal results in overshadowing of windows or private open space of residential properties, does the REF demonstrate maintenance of at least two hours of daylight as required by the Apartment Design Guide or otherwise in accordance with the applicable Planning principles? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Privacy				
Does the REF consider potential privacy impacts of the proposed works and conclude that these would not be likely to result in significant effects with or without mitigation measures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Visual impacts				
Does the REF assess potential visual impacts of the proposed works and conclude that impacts would not be significant with or without mitigation measures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Visual impacts (view sharing) – private views				
If the activity has the potential to obstruct existing significant views from private property, does the REF include an assessment of the proposal in accordance with the Tenacity Principles including as assessment of the: <ul style="list-style-type: none"> type of views affected; parts of the property the views are obtained; extent of the impact; and reasonableness of the proposal causing the impact? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the assessment conclude overall, that the proposal would not be likely to result in significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Visual impacts (view sharing) – public views				
If the activity has the potential to obstruct existing significant views from public land, does the REF include an assessment in accordance with the established planning principles (i.e. principles established by the Land and Environment Court in <i>Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor</i> [2013] NSWLEC 1046 (principles of view sharing: the impact on the public domain), including: <ul style="list-style-type: none"> an assessment of: <ul style="list-style-type: none"> nature and scope of the existing views from public domain; locations in the public domain from which potentially 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
interrupted view is enjoyed <ul style="list-style-type: none"> extent of the obstruction at each relevant location; intensity of public use of those locations where that enjoyment will be obscured, in whole or in part, by the proposed activity; whether there is any document that identifies the importance of the view to be assessed; and • a quantitative and qualitative evaluation of the impacts?				
Does the REF list any mitigation measures identified in the above assessments and incorporate them into the design where applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Air quality				
If the site is adjacent to a significant potential source of air pollution (i.e. motorway, airport or hazardous industry), has the REF been informed by either of the following by a suitably qualified person: <ul style="list-style-type: none"> a statement that air quality at the site is suitable for the proposed use based on expert advice and/or existing data; an air quality assessment? Note: Reference may need to be given to Development Near Rail Corridors and Busy Roads – Interim Guideline in the above	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If an air quality assessment is prepared, does it: <ul style="list-style-type: none"> conclude that air quality is suitable for the proposed use with or without migration? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> indicate impacts generated by the proposed activity and suitable mitigation measures? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF summarise the assessment and list any mitigation measures identified in the above assessments and incorporate them into the design where applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Trees and landscaping				
Has an Aboricultural Impact Assessment (AIA) been prepared to support the REF which assesses existing trees within the proposed works area, including street trees, and recommends tree protection measures for trees to be retained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF discuss the number, species, pot sizes and height of trees to be removed and trees to be planted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have any tree protection measures set out in the AIA been incorporated in: <ul style="list-style-type: none"> the design; REF mitigation measures; and the preliminary construction methodology? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Social Impact				
Does the REF include an assessment of the social impacts of the proposed activity comprising either: <ul style="list-style-type: none"> Sites identified for a school in a Voluntary Planning Agreement (VPA), Concept Approval, Precinct Plan, Indicative Layout Plan, adopted Masterplan, or other adopted strategic planning document, together with upgrades to existing schools - <u>Social impact addressed in REF by the consultant town planner</u> (i.e. no standalone SIA report). New schools where land has not been identified as a school in a strategic planning document or VPA etc - <u>Social impact addressed in the REF by consultant town planner (or suitably experienced), or as necessary, in a stand-alone report.</u> Schools subject to closures or mergers, or where there is loss of, or substantial change to, community infrastructure: <u>Comprehensive SIA as a separate report</u> 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
prepared by suitably experienced consultant.				
Ecologically sustainable development				
Does the ESD Report set sustainability targets for the activity in line with the department's commitments, including: <ul style="list-style-type: none"> Green Star Buildings certification for projects with >1000m2 new building and >\$10m EDC of 5 Star for Sydney, Wollongong and Newcastle metro or 4 Star for rest of NSW Operational energy and potable water intensity targets for the activity? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If Green Star Buildings certification is required, does the ESD Report include: <ul style="list-style-type: none"> the Green Star registration number for the project, and a Green Star Building pathway showing how activity will achieve the required number of credit points to certify? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If applicable under the Sustainable Buildings SEPP, has an NABERS embodied emissions material form been included in the ESD Report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the ESD report include a Climate Change Risk Assessment and Adaptation Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For sites identified as any high or extreme risks in the Climate Change Risk Assessment and Adaptation Plan, have design responses been identified to be incorporated into the project to mitigate the risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the ESD Report adequately address how the activity will: <ul style="list-style-type: none"> minimise waste from associated demolition and construction; minimise peak electricity demand; minimise overall energy use through passive design; generate and store renewable energy; minimise consumption of potable water; and meter and monitor energy and water consumption and energy generation? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the ESD Report include a Net Zero Action Plan / Net Zero in operations plan (exact name TBA) that adequately addresses how the activity has been designed to eliminate use of fossil fuels during operations, or how the use of fossil fuels will be minimised and will be eliminated by 2035?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Staging				
If the project is to be staged, does the REF include preliminary details on how construction and operations will be managed during each stage of the development, including the following for each stage: <ul style="list-style-type: none"> operational areas and areas still under construction? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> student/staff numbers? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> operational and construction access and parking arrangements? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> open space provision? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> measures to ensure acceptable amenity for students and staff in areas adjacent to ongoing construction? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> measures to ensure the safety and security of students and staff? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has each relevant technical report (transport and acoustic reports at a minimum) assessed the proposed staging and concluded that it would not be likely to result in significant environmental affects, including cumulative affects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF list any mitigation measures identified as a result of the proposed staging?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Utilities				

Requirement	Y	N	N/A	Comments
Does the REF broadly set out how the proposal will be serviced by necessary services and utilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF assess any works required to provide necessary services and utilities and conclude that these would not have significant environmental affects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If on site water treatment is required, does the REF include an on-side waste water management plan / land capability assessment that concludes that the site would be capable of accommodating wastewater without significant affects on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If temporary arrangements are required (i.e. generator), does the REF assess any potential temporary environmental effects as a result of the arrangements and conclude that significant effects would not be likely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Stormwater drainage				
Has a stormwater management plan been prepared that: <ul style="list-style-type: none"> considers and complies with council's applicable engineering specifications, including requirement for on-site detention and water quality treatment? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> demonstrates that the proposed stormwater management system would not increase runoff from the site (i.e. that post-development flows do not exceed pre-development flows)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> demonstrates that the stormwater management system would discharge to a legal point of discharge? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<ul style="list-style-type: none"> conclude that stormwater would be managed so that the proposal would not be likely to have significant environmental affects? 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF summarise the proposed stormwater management strategy and conclude that the activity would not be likely to have significant environmental impacts as a result of stormwater management with or without mitigation measures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Soil and water				
If the site is mapped as, or has otherwise been identified, as having salinity potential, does the geotechnical report consider impacts from salinity and set out measures to mitigate impacts (i.e. Salinity Management Plan) so that they would not be significant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the site is mapped as, or has otherwise been identified as having acid sulfate soils (ASS) potential, does the geotechnical report consider impacts from ASS and set out measures to mitigate impacts (i.e. ASS Management Plan) so that they would not be significant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the site is mapped as being in an area of groundwater vulnerability, does the REF include an Integrated Water Management Plan that assess the potential of the activity to impact groundwater and does it conclude that the activity would not be likely to have significant environmental impacts with or without mitigation measures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the site is mapped as being in an area of landslide risk, does the REF assess the potential of the activity and does it conclude that the activity would not be likely to have significant environmental impacts with or without mitigation measures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has an Erosion and Sediment Control plan been prepared to inform the REF that includes: <ul style="list-style-type: none"> a plan(s) detailing: <ul style="list-style-type: none"> property boundaries, existing levels of the land in relation to the building, roads and where stormwater surface flows enter and leave the site? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
○ the location of stabilised construction access points?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ the location of perimeter sediment/erosion controls?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ any 'no-go' areas that are not to be disturbed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ location of stockpile areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ location of proposed temporary and permanent site drainage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• specific measures to be implemented to prevent pollution of stormwater off the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF summarise the proposed controls and incorporate any mitigation measures identified in the above documents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Waste management				
Has a preliminary Construction Waste Management Plan been prepared that informs the REF that considers:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• the likely type and volume of waste generated by the activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• opportunities to reuse and recycle waste in order to reduce waste sent to landfill?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• set out measures to handle and dispose of the waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• conclude that appropriate arrangements can be put in place such that there would not be likely to have significant environmental affects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has a preliminary Operational Waste Management Plan been prepared to inform the REF that considers:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• the likely type and volume of waste generated by the activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• opportunities to reuse and recycle waste in order to reduce waste sent to landfill?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• set out measures to handle and dispose of the waste including the number of bins, siting and size of the waste storage area, and truck access arrangements (including swept path diagrams to demonstrate access can be achieved in a forward direction)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Council's waste management policies, if applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• conclude that appropriate arrangements can be put in place such that there would not be likely to have significant environmental affects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the REF summarise outcomes of the above and incorporate any mitigation measures identified in the above documents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Aviation				
If the proposal is located within the Obstacle Limitation Surface (OLS) or is in close proximity to an aviation facility, including helicopter landing sites, has a statement from a suitably qualified person assessing the proposed activity been prepared to inform the REF?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the statement:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• describe the nearby aviation facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• any relevant policies, procedures or controls that apply to development works on the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• assess any potential impacts from the activity, including proposed buildings, on aviation operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• assess any potential impacts of the proposed construction activities, including use of cranes, on aviation operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• describe any consultant with the relevant airport, CASA or other relevant aviation authority?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• advise if any approvals are required under aviation legislation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• conclude that the proposal is appropriate and would not	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	Y	N	N/A	Comments
have detrimental impacts on aviation safety or operations?				
Does the REF summarise outcomes of the above and incorporate any mitigation measures identified in the above documents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Signs				
Does the REF include: <ul style="list-style-type: none"> an assessment of the proposed signs against the Chapter 3 Advertising and Signage, under SEPP (Industry and Employment) 2021a site plan and elevations of any proposed signs that clearly depict the location, type, content and appearance of any proposed signs that form part of the REF activity? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other				
If the site is located in a coastal management or sensitivity area, does the REF include a Coastal Management Assessment that assesses the likely impacts of the activity on coastal values and concludes that these would not be likely to be significant with or without mitigation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the site is in proximity to a gas or oil pipeline, petrol station, LPG storage, landfill or other hazardous use, does the REF include a Preliminary Hazard Assessment that assesses the risk to the proposed activity and concludes that the risk is acceptable according to any relevant assessment framework?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the site is in a Mine Subsidence District or Mine Subsidence Risk Area, does it include a Mine Subsidence Statement and Advisory Board Approval or Mine Subsidence Risk Report (as appropriate)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the site is in close proximity to high voltage power lines or telecommunication towers, does the REF include an Electromagnetic Field Report that assesses the risk to the proposed activity and concludes that the risk is acceptable according to any relevant assessment framework?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the site is located in an area of risk of unexploded ordnance, does the REF include an Unexploded Ordinance Risk Assessment that assesses the risk to the proposed activity and concludes that the risk is acceptable according to any relevant assessment framework?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the proposed activity includes a proposed government preschool, does the REF include a report that details how the proposed activity complies with Part 4 of the Child Care Planning Guideline September 2021?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Completion

	Name and position	Signature	Date
Prepared:	[Name] Project Town Planning Consultant		[Insert date]
Reviewed:	[Name] Project Manager		