



Design Framework: Site selection and development

A guideline for determining appropriate school sites.

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schoolinfrastructure.nsw.gov.au

Purpose of this document

This document is provided as a guide for appropriate selection of sites for new school sites, that considering suitability of context and site constraints.

Planning for new schools should be undertaken in consultation with key stakeholders including the Department of Planning, Infrastructure and Environment, Transport for NSW, Roads and Maritime Services and the relevant local council and community, as appropriate.

This document is intended for use by a range of stakeholders including internal SINSW teams, urban planners and designers, developers, other government agencies and local councils.

It is important to note that this document is not intended to be used as a benchmark by which existing schools are assessed.

Related Documents

This document is to be read in conjunction with:

[Design Framework: Master Planning for Schools, SINSW](#)

[Better Placed: Design Guide for Schools, Government Architect NSW](#)

Superseded Documents

[School Site Selection and Development - V1.4 October 2020](#)

For more information on Education Facilities Standards and Guidelines, Technical Standards and a glossary, please visit:

education.nsw.gov.au/about-us/efsg

Disclaimer

This framework helps design teams easily access information and share successful project methodologies to ensure compliance with the school design principles. Following this framework does not irrevocably replace any project obligations to deliver against Educational Facilities Standards and Guideline requirements. The information within this document once downloaded/printed/exported will be classed as an uncontrolled copy. Its currency must be checked by visiting the EFSG website prior to using the information for any purposes.



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1. Introduction to Site Selection and Development

The NSW Department of Education has over 2,200 existing Government schools in NSW developed on many types of land forms, in a range of sizes, and environmental contexts.

The diverse nature of school sites illustrates how schools can operate successfully in many types of environmental settings. Despite this, there is a range of public and private interests that need to be determined, investigated, assessed, and balanced, through property due diligence and urban planning to identify design complexities.

Site selection criteria

A range of issues need to be considered when identifying a site for a new school.

The acquisition of a site for a new school, particularly in areas where property is scarce or expensive, will always require a case-by-case assessment with consideration given to environmental factors, availability, cost, need, alternative sites available, funding and feasibility of property acquisition.

This design framework covers the following design development phases:

Phase 0 Project initiation



Phase 1 Master planning



Phase 2 Concept design



Phase 3 Schematic design

Phase 4 Design development

Phase 5 Tender evaluation

Phase 6 Tender, evaluate and award

Phase 7 Construction administration

Phase 8 Commissioning and handover

Phase 9 Post-completion and warranty

2. Support for Site Selection and Development

High level design considerations

All schools are required to be designed in accordance with the Educational Facilities Standards and Guidelines (EFSG) and with reference to the design quality principles outlined in the [State Environmental Planning Policy \(Transport and Infrastructure\) 2021](#).

Due to the importance of the site selection phase, the following school design guidelines should be considered:

- provision of a clear street address, character, and frontage for the school that promotes a welcoming entry and positive learning environment
- promote safety in design, including:
 - appropriate walking and cycling infrastructure surrounding the school, including pathways that provide safe and direct routes to the school, road/railway crossings at required locations, clear wayfinding measures, and entry points to the school grounds;
 - safe access to the school through appropriately located kiss-and-drop infrastructure, bus zones, vehicular access onto the school grounds for on-site parking (if applicable), deliveries, and emergency access;
 - appropriate separation of vehicles, pedestrians, and built form, in line with the Department of Education's Vehicle Risk Mitigation Strategy, and
 - limiting the potential for overlooking of the school by neighbouring developments.
- provide open space that is easy to supervise, and appropriate for use by various age groups
- promote the heritage significance of the site (where appropriate) as an important part of the school and celebration of local or state history
- minimise the impact of the school development on neighbouring uses, including overshadowing, scale, and character of built form

For more information on school design, please refer to the [Design Framework: Master Planning for Schools](#).



3. Site Selection and Development Checklist



Site context and concept planning

The checklist below is for guidance only and provides a non-exhaustive list of issues to consider when planning for new schools.

It is important to understand the need to future proof our school sites to cater for future expansion, should this be required. Land developed for residential use brings with it an increase in population, including school-aged children who may wish to enrol at their local school. Once land has been developed for residential/other uses, it is unlikely to be released or redeveloped for an extended

period of time. This restricts the land options available for new schools and the cost of land in these areas rises substantially.

It is also important to consider the environment and dwelling types that children living in dense urban areas are accustomed to. Generally, apartment living does not come with a backyard, and developments provide minimal open space for active play. Working with local councils and developers, schools can offer students and the wider community a priceless amenity in the form of undeveloped, open space in areas of dense development.

Checklist - Design Guidance

The standard site sizes are based on development of schools in line with the Schedule of Accommodation within the Educational Facilities Standards and Guidelines.

Standard sizes (inclusive of built form and open space)

Regional/Rural areas

Primary School	Minimum 2ha (Capacity up to 1000 students)	Typically, this includes built form up to 2 storeys in height in context with the low scale of surrounding areas.
Secondary School	Minimum 4ha (Capacity up to 2000 students)	Open space is typically provided at grade only.

Suburban/Low-medium density areas

Primary School	Minimum 1.5ha (Capacity up to 1000 students)	Typically, this includes built form up to 4 storeys in height, with open space provided at grade only.
Secondary School	Minimum 2.5ha (Capacity up to 2000 students)	While this method is still valid for most schools, particularly those in low-density suburban areas, innovative solutions to school design in dense urban areas may be appropriate.

High density/Town Centre areas

Primary School	Minimum 1.5ha* (Capacity up to 1000 students)	While it is preferable to maintain building heights of up to 4 storeys with open space provided at grade (particularly for primary schools), innovative solutions for school design in dense urban areas may be appropriate.
Secondary School	Minimum 2.5ha* (Capacity up to 2000 students)	School designs that demonstrate building heights above 4 storeys (in context with the surrounding area) may explore open space within levels of the building, on rooftops, under the building and/or shared with the community. This may reduce the site area required while still providing access to open space at the standard of 10sqm per student.
	* determined based on individual assessment and school design	It is important that the additional cost associated with building above 4 storeys is balanced with the cost of land, to determine value for money.
		It is also important to ensure that the site has space to cater for fluctuations in enrolment, which may require the use of demountables or additional permanent built form. The appropriateness of this approach is to be determined by SINSW on a project-by-project basis and is subject to a range of sub criteria including the desired educational model, site context, appropriate access and transport networks, safety, and security.

Floor space distribution

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| Primary School | <input type="checkbox"/> 8,000m² - 10,000m²
(Capacity up to 1000 students) |
| Secondary School | <input type="checkbox"/> 22,000m² - 27,000m²
(Capacity up to 2000 students) |

The required gross floor area (GFA) is based on the Schedule of Accommodation within the Educational Facilities Standards and Guidelines. School designs above 4 storeys are likely to require a higher percentage of circulation space due to the provision of lift cores and the like. For this reason, it is important to note that the GFA range should be used as a guide for early site planning only.

The GFA for schools will differ from project to project and is dependent upon the site conditions, as well as specialised amenities/teaching spaces required for the individual school. For example, secondary schools may choose to add specialist spaces such as performance or wood workshops, which come with differing layout and design requirements.

SINSW actively encourages innovative and efficient school design.

Criteria	Explanation
<input type="checkbox"/> The site shall be a single lot, or consolidated group of lots	For the ease of future development and clarity of ownership, it is important that the school site is a single lot, or a group of lots consolidated into one lot, prior to the development of the school.
<input type="checkbox"/> The shape of the site shall be substantially regular in shape, that is, likely square/rectangular.	A regular lot is important for the design of schools as it provides flexibility for building layout and open space. It is important that the school site is easy to supervise, free of any hidden nooks or areas that will be 'out of bounds' due to inappropriate visual connections or potentially unsafe use (such as car parking, servicing units, etc).
<input type="checkbox"/> The school site should be located in an area that is accessible for students who will likely attend the school. Schools provide unique place making opportunities to support and strengthen town centres, and enhance the local character. It is important that the school is located where joint use opportunities are the greatest to ensure benefit to the local community who may utilise school facilities.	<p>School sites are important community assets that fulfill a role beyond student education during school hours.</p> <p>School facilities are often used by the wider community to host events such as weekend markets, polling booths, evacuation centres, and extracurricular sporting activities, to name a few. It is important that when planning for new schools, the location of the school site also considers these functions.</p> <p>There are many opportunities for schools to be jointly developed or share facilities with the community, ensuring more efficient use of space and providing quality social infrastructure.</p> <p>School sites are generally best located close to residential areas and town centres, which generate student populations, where joint/shared use opportunities are greatest, and facilities are easily accessed by the community.</p>

- ☐ The school site should provide a minimum of 10sqm per student of open space.

It is preferable that open space is provided at grade, however other options may be appropriate dependent on context and school model.

It may be appropriate to locate a school site immediately adjacent a Council-owned open space, and to count this open space as a portion of the 10sqm required. This would be dependent upon a formal agreement with Council that allows use of the land by the school during school hours.

Primary schools will require exclusive use of the open space during school hours while secondary schools may be more flexible - this is at the discretion of SINSW and will be determined on a project-by-project basis.

For schools on constrained sites or in dense urban areas, it may be appropriate to provide open space within levels of the built form, as undercroft or roof top space. Again, this is at the discretion of SINSW and will be determined on a project-by-project basis.

- ☐ The site should be appropriately zoned for school development, in-line with the “prescribed zones”.

Refer to State Environmental Planning Policy (Transport and Infrastructure) 2021.

This is required to ensure development in-line with regulatory controls and efficiency in planning approvals.

- ☐ The site shall not adjoin any land which is developed, or proposed to be developed, for use which is incompatible with a school.

The school site should not be located next to, or in close proximity to any use that may conflict with the requirements of a safe school environment. This may include uses such as heavy industrial areas where noise and traffic may be a safety concern, or entertainment precincts where activities in the area are focused on adults (for example, bars, clubs, casinos, brothels and the like).

It is also important to consider buildings or building proposals surrounding the site that may provide undesirable overlooking of the school site, particularly the open play areas, however it is anticipated that good design can overcome this.

- ☐ The site will be located within a well structured movement network that provides appropriate road infrastructure, as well as safe pedestrian pathways from residential areas to the school site.

While there is no current standard for solar access provision to schools, it is important that we treat them in a similar way to residential development and community open space.

During the week, it is likely that students spend more daylight hours in classrooms than at home in their bedrooms or living spaces. In addition, as communities become more dense, the reliance on school playgrounds as community open space is increasing, and so the same principles for sunlight access should apply. Refer to the Apartment Design Guide (Department of Planning, Industry and Environment, 2015) for details on solar access requirements for residential apartments, which may also be applicable to school design.

Not only does solar access provide a pleasant space in which to learn and teach, it may also improve the energy efficiency of the building, and provide the option for sustainable energy via photovoltaic systems.

- ☐ The site shall not adjoin any land which is developed, or proposed to be developed, for use which is incompatible with a school.

School catchments are designed to promote active transport options such as walking and cycling. This not only promotes healthy habits, but is intended to reduce the pressure on road networks that surround schools, which are often already congested and struggle to support the demand of high intensity drop-off and pickup times.

It is important that safe and appropriate walking and cycling infrastructure is provided around the school, including good quality pathways, open space connections, and road-crossing points, to encourage active transport.

- ☐ The site shall have road frontage ideally on 3, but not less than 2 sides.

It is important that the school has an appropriate amount of road frontage to provide zones for kiss-and-drop and buses, as well as the potential for a strong street presence and school identity. The length and appropriate location of these zones should be determined following a detailed transport assessment.

Access to the site for construction should also be considered, particularly for large trucks and cranes that may be required should the school be built in line with Modern Methods of Construction (MMC) processes.

It is preferable that schools are not located with street frontage to arterial or major roads, due to safety concerns and potential noise impacts.

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| <input type="checkbox"/> The site will allow for the provision of appropriate and safe pedestrian and vehicular access onto and within the school grounds. | <p>Vehicular and pedestrian access should be provided at safe and appropriate locations on the site periphery. It is important that the site and the design demonstrates separation of vehicles and pedestrians/school buildings to avoid potential collisions.</p> <p>It is also important that school access is provided as equal for all, regardless of physical ability.</p> |
| <input type="checkbox"/> It is preferable that the site is located within walking distance to public transport (in particular for secondary schools). | <p>Schools need to be easily accessible for all users, including students of varying ages, parents, staff, and visitors commuting to work from undetermined locations. Where possible, it is desirable to locate schools near or within walking distance of a train station, well-serviced bus stops, or other forms of public transport.</p> <p>This may minimise the requirement for car parking on the school site, freeing up valuable land for more efficient use. The provision of an appropriate amount of car parking should be determined following a detailed transport assessment.</p> |
| <input type="checkbox"/> The site should be fully serviced with water, natural gas, sewer, power, telecommunications, local traffic infrastructure and other utilities and service infrastructure, as is necessary for a school. | <p>Service levels should be provided to be consistent with the intended size and future capacity of the school.</p> <p>It is important that the school site is well serviced by traffic infrastructure such as kerbs, gutter, footpaths, intersections, crossings, cycle pathways, etc.</p> |
| <input type="checkbox"/> The site should preferably be free of any Aboriginal Land Claims (State), Native Title Claims (federal), mining and exploration licenses below ground etc. | <p>Due to development limitations that may apply, land that is subject to a claim or lease may not be appropriate for use as a school.</p> |

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| <input type="checkbox"/> The school site should not be located adjacent, or in close proximity to developments or land uses that may be associated with lessened air quality, radiation or noise pollution | <p>To ensure the health and safety of students and staff, it is important that selection of new school sites considers proximity to land uses including railway lines, motorways, arterial roads, communication towers, under flight paths, near ventilation stacks, etc.</p> |
| <input type="checkbox"/> The site should be free of environmental constraints including, but not limited to bushfire, flood, contamination and significant vegetation. | <p>Environmental constraints may limit design options, complicate planning approval pathways, and present a greater level of risk in terms of design approvals and general school safety.</p> <p>Where possible, schools should be located on land that is free of environmental constraints, both current and anticipated due to climate change. Where this approach is not possible, a master plan for the school may demonstrate an appropriate design response for a safe school environment and a feasible solution.</p> <p>Bushfire</p> <p>Schools that are partially within Bushfire Prone Land require careful planning and design to ensure user safety and minimise project cost. Buildings should be located on land that is free of any Bushfire Attack Level rating (where possible - subject to specialist advice). Access to the site for pedestrians and vehicles (in particular, emergency vehicles during a bushfire event) should also be located outside of the bushfire zone. Refer to the NSW Rural Fire Service website for details.</p> <p>Flood</p> <p>The site (or a significant portion of the site) will be located above the 1 in 200-year flood level and provide flood free access for pedestrians and vehicles (in particular, emergency vehicles during a flood event). Buildings should be located on land</p> |

that is above the Flood Prone Land contour (where possible - subject to specialist advice).

Contamination

The site shall be free of any contamination that would render it unsuitable for use as a school or require expensive remediation prior to that use, at the time of handover.

Significant Vegetation & Biodiversity

School sites that include areas of Significant Vegetation (as identified in the relevant Local Environmental Plan) or Biodiversity (such as rare fauna and the like) require careful planning and design to ensure suitability of use by the school, as well as environmental protection and ongoing maintenance. It is likely that areas of Significant Vegetation and Asset Protection Zones are unsuitable for use and may not be counted as usable open space.

- ☐ It is preferred that schools sites are free of heritage items that are not suitable for re-use by a school or preclude appropriate design of a school.

In most cases, heritage items can be refurbished to provide a suitable function for the school, while retaining and celebrating a unique piece of history. It is also important also to consider the appropriateness of the heritage item being used for school purposes, and how this might be more widely shared with the community.

The site should be assessed as free of archaeological heritage that would inhibit development of a school (subject to specialist advice).

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| <input type="checkbox"/> It is preferable that the gradient of the site is no greater than 1 in 10, being relatively flat and of a consistent topography. | <p>A flat site is preferable as it also allows construction of the school to occur in a time and cost-efficient manner. Additionally, it offers potential to create open spaces that may be easier to supervise and are accessible for all students and staff.</p> <p>As with most site constraints, a site with a slope is not to be ruled out, however innovative design solutions may be required to ensure the design provides equal access for all users to all areas of the school.</p> |
| <input type="checkbox"/> The site shall be free of easements and/or buffer zones that may impact development or use of the land as a school. | <p>This may include underground service pipelines and/or overhead cables, drainage corridors, powerlines, etc.</p> <p>Where possible, avoid locating school sites within the 'measurement length' or buffer zone adjacent to high-pressure pipelines, due to the risk of exposure to a failure event. A Safety Management Study and a HIPAP Risk Assessment would be required if a school is proposed within the Measurement Length or buffer zone of a pipeline.</p> |

