

Final Business Case Evaluation Summary

New schools at the Meadowbank Education Precinct



September 2020

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New South Wales

About this report

The purpose of this document is to summarise the Final Business Case for the new schools at the Meadowbank Education Precinct (the Project). The Project has been initiated in order to expand the capacity of the school network with an emphasis on developing innovative and flexible learning facilities. There is also demand due to increasing student populations associated with urban growth in the Ryde Local Government Area.

The project involves the relocation of Meadowbank Public School and Marsden High School to the Meadowbank Education Precinct on an acquired area of the existing Meadowbank TAFE. The Final Business Case outlined the following project scope:

- Closure of the Meadowbank Primary School and Marsden High School, before which:
- A new multi-storey building for a primary school and a high school is to be established on three-hectares of the former Meadowbank TAFE, for 1000 primary school students, 1500 high school students and 120 students for the intensive English centre (IEC).

The Business Case for the new schools at the Meadowbank Education Precinct has been prepared by the Department of Education (the Department) in line with NSW Treasury Guidelines for Capital Business Cases and was submitted to Government in November 2018. This Business Case Summary has been prepared by Infrastructure NSW, the Government's independent infrastructure advisory agency.

Strategic context

The new schools at Meadowbank are situated in a rapidly growing subregion of Sydney

The former NSW Department of Planning & Environment's metropolitan plan, "A Plan for Growing Sydney (2014)", identifies the Sydney North Sub region as an area that will continue to be an attractive place to live, work and visit. There will be strong demand for new housing supply and a thriving economy.

Out of all Local Government Areas (LGAs) within the North Sub region, the City of Ryde is forecast to grow by 34% (to approximately 160,750 people) by 2031. The proportion of young people aged 5 to 19 years currently account for 15 per cent of Ryde LGA's population. This is expected to increase by over 42 per cent by 2031. It is estimated that the growth is being driven by the anticipated and actual urban renewal in the LGA and surrounding area including:

- Ryde Civic Precinct Redevelopment;
- Top Ryde City shopping Centre;
- West Ryde Urban Village Development;
- Shepherds Bay Meadowbank Urban Renewal Project;
- Melrose Park Renewal Project; and
- Macquarie Park Urban Renewal Area.

A number of Education Principles form part of the strategic context for change

In the development of the concept design for the Project, the Head Design Consultant considered the following five Educational Facilities Standards and Guidelines (EFSG) design principles. The EFSG is a suite of information to aid in the planning, design and use of NSW Department of Education school facilities¹. The Head Design Consultant provided their specific responses for each principle which were endorsed by the Project Reference Group:

- **Educational Principle 1** – Focus on the needs of learners and learning;
- **Educational Principle 2** – Build community and identity and create a culture of welcome, inclusion and belonging that reflects and respects diversity within the school's community;
- **Educational Principle 3** – Be aesthetically pleasing;
- **Educational Principle 4** – Provide contemporary, sustainable learning environments that:
 - Promote learning for students and teachers through collaboration, social interaction and active investigation;
 - Encourage learner self-management and self-direction;
 - Support a full range of teaching strategies from direct explicit instruction to facilitation of inquiry and authentic project and problem-based learning;
 - Be integrated into, and maximize the use of the natural environment;
 - Enable aspects of the buildings, building design and outdoor spaces to be learning tools in themselves – for example, learning from the ecologically sustainable features of the design and associated energy management systems; and

¹ <https://efsg.det.nsw.edu.au/welcome>

- Are “age and stage” appropriate.
- **Educational Principle 5** – Embed the potential for re-configurability, both in the present for multi-purpose use and over time for changing needs.

The Project aligns with a number of NSW Government priorities and strategies

In addition to the education principles, the Project aligns with the following NSW Premier’s Priorities: Improving education results – provision of Future Learning Principle designed facilities that support learning and STEM skills development;

- Protecting our kids – Ensuring school facilities meet contemporary and future requirements;
- Improving Aboriginal education outcomes – Providing students of Aboriginal and/or Torres Strait Islander heritage with the opportunity to access mentoring and pathway programs; and
- Tackling childhood obesity – through key programs embraced by early childhood services, schools, junior sporting clubs and the community.

The Project also aligns with various parts of the NSW Department of Education Strategic Plan 2018-22, *NSW Education Act 1990*, the NSW State Infrastructure Strategy, School Assets Strategic Plan (2031) and A Metropolis of Three Cities – the Greater Sydney Region Plan (2018).

Project need

Enrolment projections will increase demand for educational facilities

The projected increase in population growth in the Ryde LGA will have an impact on increasing enrolment numbers of both primary and secondary school students. More specifically, there will be an increase of 945 primary school student enrolments by 2031 across the West Ryde Primary School Community Group (SCG)².

The supply of teaching spaces in the West Ryde Primary SCG was just sufficient to meet the demand in 2017. If there is no additional investment to 2031, primary school students in the West Ryde SCG will have to travel beyond their school catchment for an available enrolment place or study in overcrowded teaching spaces.

The projection of student enrolments in the Ryde Secondary SCG indicates a projected increase of 928 students by 2031. It is estimated that this increase can be accommodated within the Ryde Secondary SCG, however, may involve students travelling beyond their school catchment for an available enrolment place.

Existing building facilities are of a varying quality and a high percentage of temporary teaching spaces

The majority of schools within the West Ryde Primary SCG are currently in the good to fair range³. It is important to note that persistent overcrowding can however impose further burden on the existing facilities. This is particularly important given the current shortfall in teaching space supply which is projected to increase given enrolment demand.

Furthermore, across the SCG, approximately 25 per cent of all current teaching spaces are temporary (dismountable teaching spaces). More specific to Meadowbank Public School, temporary teaching spaces account for 46 per cent of total current teaching spaces. The Department of Education (the Department) guidelines specify that this should only comprise of 15 per cent of total teaching spaces where possible.

In regards to facility conditions across the Secondary SCG, Marsden High School is classified as being in poor condition. This school also experienced damage to seven teaching spaces due to a fire in August 2017.

Innovative learning

A flexible learning space can support Innovative learning. A flexible learning space replicates the environments students may encounter in the workforce where there is an enhanced focus on self-direction, self-reflection, evaluation and collaboration. To do so, the flexible learning spaces:

- Provides students with choice in how and where they learn;
- Provides teachers choice in how and where they teach;
- Supports collaboration;

² The SCG currently comprise of 7 government primary schools, 3 government co-educational secondary schools, and 1 government girls' school.

³ Based on the Facility Condition Index which shows the level of current maintenance liability for a school compared to its replacement value.

- Encourages open space that can be changed to accommodate style of learning and technology;
- Utilises furniture and space that can be used for a variety of purposes; and
- Provides optimum learning conditions such as temperature, light and acoustics.

A growing body of literature evidences the positive effect which innovative learning environments can have on students' learning outcomes, demonstrated through improved test results. For example, Armbruster et al (2009) found a six per cent point increase in students' test scores through future-focused type pedagogy. Similarly, Walker et al (2011) observed a 5 to 14 percentage point increase in test scores across several different assessments.

The opportunity exists for a potential wider educational precinct

There is an opportunity presented by the new schools' site within the potential 'Educational Precinct' at Meadowbank.

This site presents one of the potential investment options and includes a nine-hectare precinct incorporating the existing TAFE campus on six hectares and a new school on an adjoining three-hectare site. Such a precinct would combine primary and secondary education with a TAFE college.

There are many key drivers to support the project need

In summary, the key drivers to support the Project include:

1. Current and projected enrolment demand within the catchment area of West Ryde Primary SCG and Ryde Secondary SCG which exceeds the supply of permanent teaching spaces;
2. The 'Poor' quality of the buildings at Marsden High School;
3. Opportunities which exist for establishing flexible learning spaces that enable innovative learning. This in turn will drive learning outcomes in one of the fastest growing areas in Sydney Metropolitan, and achieve Department of Education's education planning objectives; and
4. Department of Education's acquisition of 3.3 hectares on the TAFE NSW Meadowbank Campus located along the northern part of Rhodes Street, Meadowbank within the Ryde LGA, which provides the opportunity to realise an integrated education precinct at the Meadowbank TAFE site.

Project objectives and design

The key objectives of the investment correspond to the service need and include the following:

- Meet the demand for schooling of NSW community in the Ryde Local Government Area (and reduce overcrowding of classrooms);
- Improve the quality of education through flexible learning spaces which can support innovative pedagogy; and
- Reduce travel times of students in the Ryde LGA.

Project Principles were developed according to project specific design responses and include:

Project Principle 1: Provide a STEAM emphasis in learning which entwines Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student inquiry, dialogue, creative and critical thinking.

Project Principle 2: Build a strong community culture ensuring the ideals of inclusion and respect for diversity across local schools, businesses and education precincts.

Project Principle 3: Provide safe, accessible, connected and flexible learning spaces.

Project Principle 4: Provide contemporary, sustainable learning environments.

Options identification and assessment

A number of options have been identified for consideration and assessment and are provided in Table 1 below. The base case and each of the options were assessed against the General Education Principles as well as the Project Principles.

Table 1: Options Identification and Assessment

Options	Accommodation for Primary School Students	Accommodation for High School Students	Facilitate future focused learning through flexible learning spaces	Capacity to meet demand	Other
Base Case – Do Minimum	7 additional demountable learning spaces across the West Ryde SCG to accommodate 20% of additional demand.	High school students within the SCG will be accommodated in existing schools.	Attempt to modify current teaching spaces.	The Base Case does not have capacity to meet projected demand for primary and high school students to 2031 without moderate overcrowding of existing teaching spaces and additional travel.	Increase spatial density in existing schools within West Ryde Primary SCG and Ryde Secondary SCG. Students travel further to a school with capacity.
Option 1 – New schools at the Meadowbank TAFE site, replacing existing Meadowbank Primary School and Marsden High School	Accommodate 1,000 primary school students by 2022.	Accommodate 1,500 secondary school students by 2022 and 120 IEC students.	Provision of flexible learning spaces supporting future focussed pedagogy for Primary and High School students.	Option 1 can meet the primary school demand to 2030 and high school demand beyond 2031 ⁴ .	The facility will accommodate a total of 2,620 students (primary school, high school, and Intensive English Centre (IEC) students). Masterplan potential for an additional 500 high school students.
Option 2 – Redevelopment of Meadowbank Public School and Marsden High School on existing sites	Redevelopment of Meadowbank Public School to accommodate 1,000 students by 2022.	Redevelopment of Marsden High School with 90 teaching spaces ⁵ by 2022.	Provision of flexible learning spaces supporting future focused pedagogy for Primary and High School students.	Option 2 can meet the primary school demand to 2030 and high school demand beyond 2031 ⁶ .	Masterplan potential for an additional 500 high school students at Marsden High School. Accommodation of 120 IEC students. Provision of demountable learning spaces in other schools within the West Ryde Primary SCG and Ryde Secondary SCG to absorb students in the interim.

⁴ The demand projections are only available up to 2031 based on NSW Department of Planning and Environment projection available to date, therefore, it cannot be definitively stated until when demand is being met.

⁵ The number of teaching spaces includes general teaching spaces as well as specialised teaching spaces (such as seminar rooms, practical activity areas, etc.).

⁶ The demand projections are only available up to 2031, therefore, it cannot be definitively stated until when demand is being met.

Option 3 – Construction of a new primary school and closure of existing site of Meadowbank Public School	Accommodate 1,000 primary school students.	Retain all high schools in the SCGs in their current state.	Provision of flexible learning spaces supporting future focused pedagogy for primary school students only.	Option 3 can meet the primary school demand to 2030.	This option does not include dedicated IEC student spaces.
Option 4 – Construction of a new primary school and upgrade of Gladesville Public School. Closure of existing site of Meadowbank Public School and Putney Public School	Accommodate 1,000 primary school students at the new school. Upgrade Gladesville Public School from 500 to 1,000 students (31 additional teaching spaces).	Retain all high schools in the SCGs in their current state.	Provision of flexible learning spaces supporting future focused pedagogy for the new Primary School only.	Option 4 can meet the primary school demand to 2031.	This option does not include dedicated IEC student spaces.
Option 5 – Construction of a k-12 school campus and closure of Meadowbank Public School and Hunters Hill High School	Total capacity of 3,000 students (including primary school students and high school students).		Provision of flexible learning spaces supporting future focused pedagogy for primary school and high school.	Option 5 can meet the primary school demand to 2030 and high school demand beyond 2031 ⁷ .	This option does not include dedicated IEC student spaces.
Option 6 – Construction of a K-12 school campus and upgrade of Gladesville Public School. Closure of Meadowbank Public School, Putney Public School and Hunters Hill High School	Total capacity of 3,000 students (including Primary and High school students). Upgrade Gladesville Public School (Primary School) from 500 to 1,000 students (31 additional teaching spaces).		Provision of flexible learning spaces supporting future focused pedagogy at the newly built primary school and high school only.	Option 6 can meet the primary school demand to 2031 and high school demand beyond 2031 ⁸ .	This option does not include dedicated IEC student spaces.

⁷ The demand projections are only available up to 2031, therefore, it cannot be definitely stated until when is demand is being met.

⁸ Same as above.

Economic evaluation

A cost benefit analysis (CBA) of the short-listed options has been conducted in line with NSW Government Guidelines for Economic Appraisal. Costs and benefits were analysed over a 40-year evaluation period from FY2018 to FY2057 (based on the expected useful life of the asset) and discounted at 7%, with sensitivities done at 3% and 10%.

The CBA for the Base Case and Project Option 1 (incremental to the base case) was undertaken which indicated a BCR of 0.58.

The outcomes of the analysis

The following options have been considered in this Business Case:

- Base Case – Do minimum
- Option 1 – New school at the TAFE Meadowbank site;
- Option 2 – Redevelopment of Meadowbank Public School and Marsden High School on existing sites
- Option 3 – Construction of a new primary school and closure of existing site of Meadowbank Public School;
- Option 4 – Construction of a new primary school and upgrade of Gladesville Public School. Closure of existing site of Meadowbank Public School and Putney Public School;
- Option 5 – Construction of a K-12 school campus and closure of Meadowbank Public School and Hunters Hill High School; and
- Option 6 – Construction of a K-12 school campus and upgrade of Gladesville Public School. Closure of Meadowbank Public School, Putney Public School and Hunters Hill High School.

A multi-criterion assessment was undertaken on each of the options, which considered economic, financial, sustainability, risk, legislative and technical factors. Option 1 has been assessed as the preferred option as it performs best against the evaluation criteria. Options 2 to 6 were not short listed for further analysis. A summary of the evaluation for the Base Case and Option 1 is provided in Table 2.

Table 2: Options Evaluation

Criteria	Base Case	Option 1
Risk Assessment	High	Medium
Social, economic and environmental sustainability	Somewhat meets	Largely meets
Technical standards and legislative requirements	Somewhat meets	Fully meets
Qualitative performance criteria	1	2.6
Time to implement	Ongoing	3 years

Deliverability

Procurement

A procurement strategy has been developed in consideration of:

- Adherence to the NSW Government Action Plan – A ten point commitment to the construction sector (2018);
- Lessons learnt from the procurement of other large school projects;
- Ensuring a high level of certainty in terms of cost and timeframe with demonstrable value for money, while ensuring all probity standards are met; and
- The challenge to ensure the project is completed by end of 2021.

A project procurement process has further been developed to reflect these requirements.

Key risks and mitigation

The Project Reference Group has undertaken a risk management assessment as part of the preparation of the Final Business Case. These risks have also been assessed and incorporated into a risk register for consideration and assessment of the impact on the establishment of an appropriate project contingency.

The project risk register for the delivery of the Project will be developed and updated throughout the life of the Project.

The Infrastructure NSW view

Consistent with the NSW Government's Infrastructure Investor Assurance Framework, Infrastructure NSW routinely assesses business cases and provides advice to Government on the efficacy of their findings.

The Business Case adequately makes the case that the Marsden High School and Meadowbank Primary schools are past their functional use date, on constrained sites, under pressure to absorb more students - and this cannot be resolved by adding more temporary buildings or re-purposing older ones. The current condition of the schools coupled with the projected enrolment growth, not only at these two schools but across the wider Ryde LGA, present a compelling case for change.

The Final Business Case has identified a BCR of 0.58 in its economic analysis. Although the BCR is below 1.0, Infrastructure NSW notes the base case scenario, which provides demountable classrooms, does not provide a realistic long-term solution and has many disadvantages.

In addition, a range of qualitative benefits were identified including improved teacher efficiency, improved community satisfaction, contribution to Ryde's urban renewal, ease in transition from primary to high school, improved accessibility and potential benefits from co-location with the New TAFE Meadowbank campus.

The preferred option (Option 1) performed better on a qualitative basis than the base case and the other five identified project options in terms of delivering the five Education Principles.

Infrastructure NSW has concluded that the Project is being effectively developed and delivered in accordance with the government's objectives.