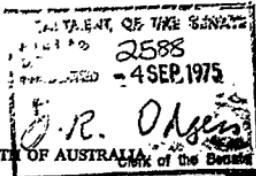


THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA



1975

*Parliamentary Standing Committee on Public Works*

## REPORT

relating to the proposed construction of

# SADADEEN HIGH SCHOOL

Alice Springs  
Northern Territory

(TENTH REPORT OF 1975)

## CONTENTS

	<u>Paragraph</u>
The Reference	1
The Committee's Investigation	4
The Need	6
Committee's Conclusion	13
The Proposal	
Site	14
Committee's Conclusion	15
Design Strategy	16
Modern Educational Techniques	19
Accommodation	20
Construction	
Structure	25
Site Development	28
Mechanical Services	31
Electrical Services	34
Hydraulic Services	37
Fire Protection	38
Furniture and Fittings	39
Environmental Impact Statement	40
Stage 2 Development	41
Committee's Recommendation	42
Estimate of Cost	43
Program	44
Recommendations and Conclusions	45
Site Plan	

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

SADADEEN HIGH SCHOOL  
ALICE SPRINGS, NORTHERN TERRITORY

R E P O R T

On 8 July 1975, His Excellency the Governor-General in Council referred to the Parliamentary Standing Committee on Public Works for investigation and report to the Parliament the proposal to construct the Sadadeen High School, Alice Springs, Northern Territory.

The Committee have the honour to report as follows:

THE REFERENCE

1. The proposal submitted to the Committee is for the erection of a second high school at Alice Springs to meet enrolment pressures and new educational requirements in the area. The school will consist of nine major elements of accommodation including administration, library/resources centre, general learning areas etc. planned around a central multi-purpose zone, according to functional requirements. The planning has been developed on a learning unit basis with each area designed to be flexible in terms of space and facilities.
2. The estimated cost of the work when referred to the Committee was \$5.43 million.
3. During the public hearing the Committee were informed that a detailed examination of the design aspects of the proposal had resulted in a revised estimated cost of \$5.2 million.

THE COMMITTEE'S INVESTIGATION

4. The Committee received written submissions and drawings from the Departments of Education and Housing and Construction and took evidence from representatives of these departments at a public hearing in Alice Springs on 5 August 1975. A written submission was also received from two members of the Northern Territory Legislative Assembly. Prior to the hearing the Committee inspected the site of the proposed high school.

5. The Committee's proceedings will be printed as Minutes of Evidence.

THE NEED

6. The object of this proposal is for the construction of an additional high school to meet enrolment pressures and new education requirements in Alice Springs. Current estimates of secondary school enrolments indicate that a second high school, to provide education for approximately 500 students will be required by 1978. Planning allows for a Stage 2 development to bring pupil capacity up to 800 if the need for further expansion arises.

7. The proposed high school will prevent the overloading of existing facilities due to the proposal to extend the township of Alice Springs east of the Todd River into the Ross Park and Sedadeen Range areas. Further extension of the existing high school is not considered desirable.

8. The existing high school has a capacity of 1000 students having regard to existing curriculum developments and staffing arrangements. The following tables show the total high school enrolments from 1968 to 1975 and the growth of enrolments for the same period.

High School Enrolments for Alice Springs

<u>Year</u>	<u>Students</u>	<u>Year</u>	<u>Students</u>
1968	292	1972	571
1969	339	1973	645
1970	445	1974	729
1971	485	1975	858

Growth of Enrolments

<u>Year</u>	<u>Increase over Previous Year</u>	<u>Percentage annual Growth of Enrolments</u>
1969	47	16.1
1970	106	31.3
1971	40	9.0
1972	86	17.7
1973	74	13.0
1974	84	13.0
1975	129	17.7

9. The present high school caters for all secondary students in Alice Springs. When a secondary school first opens, it usually commences operation with junior grades which progress in subsequent years until the school has a full complement at Grades 8 to 12. Senior students from within the catchment area of a new school normally attend a nearby established high school which has senior grades. This method will also be suitable for Alice Springs.

10. The proposed school will draw students from within the Ross Park and Racecourse areas and the Traeger Park Primary School's northern catchment area, while the present high school will receive students from the Gillen and Bradshaw areas and the Traeger Park Primary School's southern catchment area.

11. As more adult education and employment opportunities become available, the percentage of secondary students to the total population is expected to increase. This has been the case in recent years as indicated in the following table.

<u>Year</u>	<u>Population</u>	<u>Secondary Students</u>	<u>Percentage of Secondary Students to Population</u>
1966	6390	252	3.94
1971	11179	485	4.34
1973	12762	645	5.05

12. Because of the factors mentioned above and the opening of Yirara College for Aboriginal students providing additional opportunities for Aboriginals from outlying areas attending high school, it is believed that the 14% growth rate experienced from 1970-75 will be maintained for some years and this is the basis which has been used to assess the following enrolment projection.

<u>Year</u>	<u>Projected Enrolments</u>
1976	980
1977	1120
1978	1250
1979	1450
1980	1650

13. Committee's Conclusion There is a need for a second high school in Alice Springs to cater for the projected growth in enrolments.

#### THE PROPOSAL

14. Site The proposed site is in the new Sadadeen Sub-division located on the east side of the Alice Springs township. It has an area of approximately 7 hectares, and is bounded by, as yet, unnamed public roads to the north-east and north-west. The residential area to the south-east is separated from the school site by a 30m wide nature strip. To the south-west of the school site land is reserved in the Alice Springs Town Plan for an education complex. The proposed high school will be the first building in the proposed complex, which will be developed around central communal recreation grounds and facilities and will include in addition a community college, a primary school and a non-government high school. The Committee note that the Department of Housing and Construction desires an extension to the eastern boundary of the site and, as this appears beneficial, the Committee suggest that further consideration be given to this aspect.

15. Committee's Conclusion The site selected is suitable.

16. Design Strategy The planning provides for a central multi-purpose activity zone, a games hall and a library/resources centre with the general and specialist learning areas close to it. There will be two relatively large general study areas, an art and craft complex, a science area and an administration section. General and specialist learning areas will be arranged on two levels and interconnected by stairs and ramps. The ramps will provide access for handicapped persons. Special toilet facilities will be provided on each level.

17. The planning has been developed on a learning unit basis and each area has been designed to be flexible in terms of space and facilities. The design will allow for a broad general curriculum for all students, while making provision for some specialisation where required.

18. It is expected that the school will be used extensively by the local community. The library, art/craft, science and activity areas are suitable for use for a range of evening classes, lectures, discussion groups or functions as required.

19. Modern Educational Techniques The flexible use of open space as applied to this school will make possible the use of a number of modern educational techniques including:-

- (a) The flexibility provided by open space areas will enable team teaching techniques to be used where appropriate to make the best use of teacher skills.
- (b) The freedom of movement for students, which is so desirable in a modern learning program, can be achieved with a minimum of interference to the work of other students.
- (c) Students can be formed into groups of varying size according to need.

- (d) Both individual study and group discussions are more adequately provided for.
- (e) Integration of students and disciplines becomes an attainable objective. Opportunity is provided for an interdisciplinary approach to learning in the academic and practical areas of the school.

20. Accommodation The science area will cater for all specialist practical science classes in three multi-purpose laboratories. Two laboratories will be provided in an open area of  $200m^2$  and the third will have an area of  $100m^2$ .

21. The art/craft complex will accommodate all art and craft activities including home economics and industrial arts and can be opened through to enable the students to use the different facilities as required.

22. The library/resources centre will be basically to the standards determined by the Commonwealth Secondary Schools Libraries Committee.

23. The library will be centrally located and easily accessible to all sections of the school. Provision will be made for a variety of media to be available for student use. Areas will be provided for both individual and group discussion and for the preparation of audio-visual teaching aids. The school activity centre will comprise a music room, gymnastics and games hall and canteen. It will be possible to have several activities in progress simultaneously. Special attention will be paid to acoustic treatment to reduce to a minimum any unnecessary interference from noise.

24. The general learning area will consist of two complexes each containing a number of classrooms associated with a suite area, an activity room, staff studies and general stores. The classrooms will be located

around the suite area in conjunction with other rooms in such a way as to provide a series of free flowing interlinked spaces. It will be possible by using sliding panels and folding walls to provide a variety of closed, partly closed and open spaces capable of accommodating groups of varying sizes from 15 to 90 students.

#### CONSTRUCTION

25. Structure The buildings will be constructed with reinforced concrete columned floors. Most external and internal walls will be of locally manufactured concrete masonry. To provide maximum flexibility, some internal walls will also be designed as lightweight partitions which can be removed or relocated as necessary.
26. The roof construction will consist of steel trusses supported on reinforced concrete columns. The roofing material will be coloured steel deck, suitably insulated. An exposed framing system incorporating skylights will be used over the central multi-purpose zone. Windows will be aluminium framed with tinted glass to alleviate glare.
27. Materials and finishes generally have been chosen to reduce maintenance to a minimum consistent with the functional requirements of the school. Simple detailing is proposed throughout with visual effects being gained from co-ordinated use of colour, form, proportion and texture, rather than from applied costly finishes.
28. Site Development Plans are currently being prepared by the consulting engineers to the Department of Housing and Construction for a pipe and floodway system, to channel the natural drainage of the Sedadeen Sub-division to the Todd River. To achieve this, the levels of the site will be reconstructed to fall to a landscaped floodway 60m wide provided along the north-west boundary of the site.

29. The site development will include access roads, parking for 70 cars and 100 bicycles, footpaths, an oval, two tennis courts, two basketball courts, a cricket practice pitch and site landscaping. Trees and shrubs will be planted throughout the site to provide shade areas and to screen car parks and sporting facilities. The area required for vehicle parking will be designed in several small landscaped sections.

30. Minor earthworks will also be used to create small mounds and changes in levels to give the site an added landscape interest.

31. Mechanical Services Evaporative cooling and winter heating will be provided to all occupied areas of the school. Treated air will be distributed from three plant rooms located at the basement and first floor levels. The library/resources centre, lecture room, games hall and music room will be treated separately from the other areas to enable these facilities to be used independently outside normal school hours.

32. Exhaust ventilation will be provided for all food preparation areas, internal toilets, change rooms and stores as required. Laboratories will be provided with fume cupboards as required. Hot water will be provided from electric hot water units for kitchen and similar usage and from electrically boosted solar hot water systems for ablution areas.

33. Low pressure gas, reticulated from a central bank of cylinders will be provided to each laboratory. The completed installation will include safety devices as appropriate.

34. Electrical Services Electricity supply will be obtained from a substation to be located within the school. General lighting and power installation will be provided to suit the requirements of the buildings. Artificial lighting will be provided in accordance with the requirements of

the relevant Australian standards and will generally be fluorescent. Special areas will be provided with other appropriate types of lighting.

35. An intercom system, clocks, and wiring for telephones will be provided. Conduits will be provided in general learning areas, the library/resources centre and the language laboratory to facilitate the installation of audio-visual aids by the Department of Education.

36. External illumination will be provided to roads, footpaths, car parks and tennis and basketball courts. External security lighting to the building will also be provided.

37. Hydraulic Services Water will be reticulated from the town supply. Sewerage will be connected to the sub-divisional trunk sewer.

38. Fire Protection A thermal fire detection and alarm system will be provided and connected to the Alice Springs Fire Station which is 2 km from the school. Hose reels and portable fire extinguishers will be provided inside the building and fire hydrants outside. The art/craft department will be protected by an automatic sprinkler system.

39. Furniture and Fittings All moveable fittings, furniture and school equipment will be supplied by the Department of Education and the cost of these is not included in the estimate. Built-in fittings such as shelving and cupboards are included in accordance with the requirements of the design brief.

40. Environmental Impact Statement The Department of the Environment has examined the Notice of Intention for the proposed school and decided that an environmental impact statement is not required.

41. Stage 2 Development The building is designed to allow for future extensions to cater for an extra 300 students in the event of further development of residential areas in the East Side Valley. Stage 2 envisages

extensions to the general learning areas, library/resources centre, art/craft and science departments. Stage 1 includes advance provision for some Stage 2 development such as a full size games hall and staff common room, to prevent expensive and disruptive extensions at a later date.

42. Committee's Recommendation The Committee recommend the construction of the work in this reference.

ESTIMATE OF COST

43. The estimated cost of the work when referred to the Committee was \$5.43 million. During the public hearing the Committee were informed that the revised estimated cost of the work is now \$5.2 million made up as follows:

	\$
Building works	3,598,000
Mechanical services	795,000
Electrical services	269,000
Hydraulic services	110,000
Civil works	428,000
	<hr/>
	<hr/>
	5,200,000

PROGRAM

44. It is estimated that the preparation of contract documents and the consideration of tenders will take until March 1976. After a contract has been let, approximately 21 months will be required to complete the project.

RECOMMENDATIONS AND CONCLUSIONS

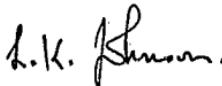
45. The summary of recommendations and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers.

Paragraph

1. THERE IS A NEED FOR A SECOND HIGH SCHOOL IN ALICE SPRINGS TO CATER FOR THE PROJECTED GROWTH IN ENROLMENTS.

Paragraph

2.	THE SITE SELECTED IS SUITABLE.	15
3.	THE COMMITTEE RECOMMEND THE CONSTRUCTION OF THE WORK IN THIS REFERENCE.	42
4.	THE ESTIMATED COST OF THE WORK WHEN REFERRED TO THE COMMITTEE WAS \$5.43 MILLION.	43
5.	THE REVISED ESTIMATED COST OF THE WORK AT THE TIME OF THE PUBLIC HEARING WAS \$5.2 MILLION.	43



L.K. Johnson.  
(L.K. JOHNSON)  
Chairman

Parliamentary Standing Committee on Public Works,  
Parliament House,  
CANBERRA, A.C.T.

28 August 1975.

**12 SITE PLAN**

