

1969

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

REPORT

relating to the proposed construction of

JINGILI AND MOIL PRIMARY SCHOOLS

Darwin, Northern Territory

(Seventh Report of 1969)

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FOR SENATOR PROWSE

I present the report of the Parliamentary Standing Committee on Public Works relating to the following proposed work,

JINGILI AND MOIL PRIMARY SCHOOLS, DARWIN,
NORTHERN TERRITORY.

I ask for leave to make a short statement.

(WHEN LEAVE GRANTED)

The summary of recommendations and conclusions of the Committee is as follows:

1. Facilities to meet the public primary school needs of the residents of Jingili and Moil are required.
2. There is a need for the work in this reference.
3. The Committee agree that the sites selected are suitable.
4. Designs are being developed to reduce the height of the roof mounted air conditioning units to ensure that they blend unobtrusively with the other elements in the elevations of the buildings.
5. The Committee recommend the construction of the work in this reference.
6. The estimated cost of the work when referred to the Committee was \$700,000 for each school.
7. The Jingili school reference should have been submitted to the Committee late in 1968 to allow a reasonable time for completion and fitting out and furnishing before the commencement of the 1971 school year.

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

JINGILI AND MOIL PRIMARY SCHOOLS
DARWIN, NORTHERN TERRITORY

R E P O R T

On 3 July 1969, His Excellency the Governor-General in Council referred to the Parliamentary Standing Committee on Public Works for investigation and report to the House of Representatives, the proposal for the construction of primary schools at Jingili and Moil, Darwin, Northern Territory.

The Committee have the honour to report as follows:

THE COMMITTEE'S INVESTIGATION

1. The Committee received written submissions and drawings from the Departments of Education and Science, and Works, and took evidence from representatives of these departments at a public hearing in Darwin. We inspected the sites of the proposed schools and Millner Primary School which is the most recently completed primary school in Darwin and incorporates many of the design features of the proposed schools.

THE REFERENCE

2. The proposal referred to the Committee is for the construction of two primary schools in Darwin; one in the suburb of Jingili and the other in nearby Moil.

3. Each school is planned to accommodate about 315 primary and 175 infant pupils in the one air conditioned building complex. The proposals are designed to facilitate future expansion should the need arise.

4. The cost of the work is estimated at \$700,000 for each school.

THE NEED

5. Plans for development of Darwin's urban areas are currently based on a series of districts each comprising four suburbs. Generally, the suburbs are sub-divided to contain 600 or more residences which have as their focal point, a primary school centre. Each district has a high school fed by students from the four primary schools.

6. The two suburbs to be served by the primary schools proposed in this reference, Jingili and Moil, are part of the Casuarina district, located about six miles north-east of Darwin's city area. The suburbs of Alawa and Wagaman complete the district. The Committee have reported to the Parliament on the provision of engineering services to the Alawa, Jingili and Moil sub-divisions and is currently considering proposals for Wagmann.

7. Alawa is now fully developed and its primary school is scheduled for completion at the commencement of the 1970 school year. Housing construction commenced in Jingili in 1968 and current indications are that most of it will be occupied during 1970. In Moil, it is expected that about 100 to 150 houses will be occupied by December 1970, some 400 to 450 by February 1972 and the balance later in that year.

8. Projected school requirements are based on the current house construction programme for the next three years and the number of children of school age estimated on the basis of the number of occupied dwellings.

The figure used for estimating primary school enrolments in Darwin is 0.8 pupils per family or dwelling unit. On this basis it has been estimated that there will be 70 pupils resident in Jingili by February 1970. This is expected to increase to 420 by February 1971 and 490 by February 1972. In Moil, 110 pupils are expected by February 1971 and 330 by February 1972. A further increase paralleling that of Jingili is expected during 1972 as Moil becomes almost fully occupied.

9. As it is clear that facilities to meet the public primary school needs of the residents of Jingili and Moil are required, the Committee agree that there is a need for the work in this reference.

10. The figure adopted to estimate primary school enrolments is a broad indicator only and the actual ratio, in practice, varies according to the stage of area development. The Committee noted that if the ratio exceeds 0.8 for a period it may be necessary to provide some additional permanent classrooms or transportable units depending on the duration of the excess demand.

THE PROPOSED SCHOOLS

11. Administration Community education at all levels in the Northern Territory, and accordingly buildings for such purposes, is the responsibility of the Commonwealth. However, by agreement, the South Australian Government provides the services of teachers, and South Australian curricula are followed. The State also advises on the educational aspects of siting and design of schools. The latter arrangement applied to the schools proposed for Jingili and Moil.

12. Type The proposals evolved envisage each school accommodating both primary and infant pupils in the one building complex, under the control and direction of the one headmaster. The layout of each school provides

for functional separation of infant and primary divisions, but permits easy access to other areas common to both.

13. Size It is proposed to design each school to ultimately cater for some 500 pupils. In the infants' section, this will include two classrooms connected by folding doors, three standard classrooms, one teaching room and a covered assembly/activity area. The primary section will have four classrooms connected in pairs by folding doors, five standard classrooms, three teaching rooms, an art and craft room and store, and a craft teacher's room. An assembly area, divided from the infants' assembly area by a tuckshop and kitchen, will include a general purpose room raised for use as a stage and closed off from the main area by folding doors. It will also have an annexe which will be used as a dressing room and store.

14. The administrative section will accommodate the headmaster's office, a waiting area, offices for staff and visiting officers, a staff room with a kitchenette recess, a library and librarian's office, workshop and store, a medical room, a book room and a duplicating room.

15. Two general stores, a sports store, a gardeners' store and toilets will also be provided.

16. Public Use of Facilities We noted that at the discretion of the headmaster the facilities of the schools can be available for public use in accordance with accepted Darwin practice.

THE SITES

17. The Jingili site covers 19 acres and is bounded by Jingili Terrace, Knowles and Rindberg Streets. The Moil site enclosed by Lanyon Terrace, Budgen Street and Moil Crescent, is slightly less compact and covers 22 acres.

18. Both sites are essentially similar, each with a gentle fall from east to west. They are centrally positioned in each suburb and access is available without crossing major roads. Each site has some timber cover and sufficient area exists for future expansion if required.

19. The Committee agree that the sites selected are suitable.

THE BUILDING PROPOSALS

20. Design Due to the similarities of the sites and their purpose, identical plans will be used for both schools, but obvious duplication will be avoided by using differently coloured materials and finishes.

21. To facilitate control and supervision by teachers and at the same time achieve economical air conditioning, single storey schools with wings grouped around a tree shaded courtyard, are proposed. In each case the administrative section and infant classrooms will be on the northern side of the courtyard, the primary classrooms on the southern side and the covered assembly area, general purpose room, tuckshop and associated facilities on the eastern side. This layout while separating the primary and infants' sections will allow easy access to administrative, specialist and other common areas. Flexible classroom accommodation is planned by varying the size of classrooms and teaching rooms and by the provision of sound-proof folding partitions between selected rooms.

22. In this respect, the design of the schools includes features, not previously provided in the Northern Territory, for such modern departures from the conventional one-teacher one-class arrangement as team teaching and tuition with varying sized pupil groups.

23. Construction and Materials The buildings will be constructed of transversely spanning steel portal frames at 13 ft 4 in. centres supported on concrete spread footings. Steel purlins will carry the roof decking and suspended ceilings. Floors will be concrete slab on consolidated filling. External walls will be erected on concrete strip footings. Clay brick will be used for walls at Jingili and coloured cement brick at Moil.

24. Window frames will be anodised aluminium and wall units to sill height will be insulated sandwich type panels faced both sides with permanently coloured asbestos cement sheeting. Demountable acoustic ceilings will be provided to all classrooms, classroom corridors and special purpose rooms. Utility areas such as stores, cleaners' closets, etc. will have asbestos cement ceilings. Roofs will be of galvanised ribbed steel decking and will be suitably insulated.

25. Finishes Finishes will be selected to provide both durability and low maintenance costs.

26. External finishes to walls will include off-form concrete, face brick and permanently coloured asbestos cement. Steel portal frames will be painted and eaves linings, roof fascias and sun hoods will be of permanently coloured asbestos cement.

27. Floor finishes in classrooms, offices, library and corridors generally will be vinyl tile. Kitchen and toilet areas will be covered with ceramic tile floors. Floor surfaces in assembly areas and covered walkways will be granolithic.

28. Most internal walls and partitions will be finished in face brick, or rendered and painted. Toilet partitions will be precast terrazzo and ceramic wall tiling will be provided behind sanitary fittings. Doors will be of the flush solid core type and painted.

29. Mechanical Services In accordance with the recent Government decision on the air conditioning of major new primary schools in the Zone 1 geographical area of the Northern Territory, it is proposed to air condition each school except for toilets, assembly areas, tuckshop, kitchen, foyer and stores. The Committee were told that it is thought that six packaged air conditioning units each of approximately 20 tons capacity will be required. It is proposed to mount these on the roof above the main classroom and administration wings. The roof under these units will be suitably insulated against noise transmission.

30. In the light of the unsatisfactory aesthetic result produced on the extended Adelaide Airport terminal by the roof mounted evaporative coolers, the Committee sought assurances from the Department of Works that the roof mounted air conditioning units in this reference would not be similarly prominent and unsightly.

31. We were told that designs are being developed to reduce the height of the units as far as possible and to ensure that they blend unobtrusively with the other elements in the elevations of the buildings.

32. Conditioned air will be ducted through insulated sheet metal ducts located above suspended corridor ceilings and distributed to rooms through wall mounted supply-air registers. In general, the corridors will act as return air ducts.

33. Other mechanical services will include a hot water supply, refrigerated drinking water units, kitchen equipment and sanitary and garbage incinerators.

34. Sun Control To avoid direct sunlight penetration, and so to reduce the load on the air conditioning plant and prevent glare, classroom windows

will be placed on the northern and southern sides of the buildings under wide overhangs. Solid panels parallel to the wall and fixed beneath the eaves will cut out the lower rays of the sun.

35. Electrical Services Electric power drawn from the town mains will be reticulated to a substation in each school having been brought in from the street line by underground cable.

36. Lighting will generally be fluorescent throughout and outside security perimeter lighting will be provided. General purpose power outlets will be provided as required.

37. A public address and relayed radio system will be installed with loudspeakers in all classrooms and functional rooms, assembly areas and courtyards and with flares to playgrounds. Electric clocks will be provided in classrooms.

38. Hydraulic Services Water supply will be drawn from the town mains. Sewerage will be connected to the town sub-divisional sewers. An automatic lawn watering system will be included.

39. Civil Works and Landscaping Internal service roads and a parking area for 20 cars at each school will be bituminous surfaced and have concrete kerbs and channels. Site works at each school will include forming the oval and basketball courts and landscaping. Stormwater will be collected in underground pipes and disposed of in adjacent stormwater drains.

40. As well as the oval areas, open areas will be grassed. As many of the existing trees as possible will be preserved and a programme of interplanting using tropical trees will be undertaken.

41. Fire Protection A thermal fire alarm system connected to the local fire station is to be installed. Hose reels and portable fire extinguishers will be provided inside the buildings as required.

42. The Committee's Conclusion 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 \$700,000 for each school, made up as follows:

	\$
Building work	423,000
Mechanical services	150,000
Electrical services	27,000
Hydraulic services	27,000
Civil works	65,000
Fire services	8,000
	700,000

PROGRAMME

44. The Committee were told that after an approval to proceed is given, preparation of contract documents, calling of tenders and letting a contract is expected to take five months. Construction of each school is expected to be completed 15 months after a contract is let.

45. As the Jingili school should be completed in time to be fitted out and otherwise prepared for occupation at the commencement of the 1971 school year, and as the construction period is too short, the Committee noted

the advice of the Department of Works that completion of the school is to be staged. By this means, it is hoped to have the classrooms ready for occupation by the target date. Unfortunately, there is no margin in this schedule for preparing the school for occupation and in any event, it is considered that even by staging, the target for the completion of the classrooms is so optimistic as to be almost unachievable.

46. The problem is accentuated too, by the fact that in 1971 besides taking pupils from Jingili, 110 pupils from the Moil area will be temporarily located at Jingili pending completion of the Moil school.

47. As in several other recent reports on Darwin projects, while we find ourselves in complete agreement with the physical aspects of the proposal, we are extremely critical of the timing. Clearly the Jingili school reference should have been submitted to the Committee late in 1968 to allow a reasonable time for completion and fitting out and furnishing before the commencement of the 1971 school year. Fortunately, this should not be repeated at Moil school, providing always that that contract is let without delay and is completed on schedule.

RECOMMENDATIONS AND CONCLUSIONS

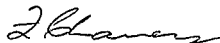
48. The summary of recommendations and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers.

Paragraph

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|----|--|---|
| 1. | FACILITIES TO MEET THE PUBLIC PRIMARY SCHOOL NEEDS
OF THE RESIDENTS OF JINGILI AND MOIL ARE REQUIRED. | 9 |
| 2. | THERE IS A NEED FOR THE WORK IN THIS REFERENCE. | 9 |

Paragraph

3. THE COMMITTEE AGREE THAT THE SITES SELECTED ARE
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4. DESIGNS ARE BEING DEVELOPED TO REDUCE THE HEIGHT
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7. THE JINGILI SCHOOL REFERENCE SHOULD HAVE BEEN
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(F.C. CHANEY)
Chairman.

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

14 August, 1969.