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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

INTERIM REPORT

relating to the proposed construction of a

COMMUNITY COLLEGE

at

Darwin, Northern Territory

(SECOND REPORT OF 1971)

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

COMMUNITY COLLEGE, DARWIN NORTHERN TERRITORY

INTERIM REPORT

On 26 November 1970, 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 for the construction of a Community College at Darwin, Northern Territory.

The Committee have the honour to report as follows:

THE REFERENCE

1. The proposal referred to the Committee is for the construction of a Community College specifically designed to meet the present and expected post-school educational needs of Darwin and the nearby area. The college will take over and expand the functions of the Darwin Adult Education Centre and provide limited residential accommodation for 72 students.
2. The work as referred to the Committee is estimated to cost \$4 million.

THE COMMITTEE'S INVESTIGATION

3. The Committee received written submissions and drawings from the Departments of Education and Science, and Works and took evidence from their representatives at public hearings in Canberra and Darwin. We also took evidence in Darwin from representatives of the Australian Society of Accountants, the Northern Territory Graduates' Association and two private witnesses, and received written submissions from the Professional Officers' Association and the Australian Institute of Management.

4. Inspections were made of the Darwin Adult Education Centre and the site for the proposed College.

5. As part of our investigation we also examined the cost of providing comparable living-in accommodation in a number of projects currently being examined by the Committee including the present reference, the Alice Springs Hospital and quarters for the Services. A preliminary examination suggested that there are anomalies in the standards adopted by various Commonwealth authorities charged with providing residential accommodation and that an overall study might usefully be made of relative costs and standards.

6. Consequently, we have asked the Department of Works, as the Commonwealth's design authority, to undertake an analysis of the various implications of different types of living-in accommodation. This study is now in hand but may not be completed and considered by the Committee for several months.

7. As we are anxious not to delay this project, we are therefore making this interim report so that the Government can approach the Parliament for an early endorsement of the proposed work but without the residential accommodation complex.

8. Briefly then, the Committee

- concluded that a need has been established for all of the work in the reference including the residential accommodation;
- concur in the work proceeding except for that accommodation; and
- undertakes to report finally on the design and construction of the accommodation when the Department of Works' analysis has been considered.

POST-SCHOOL EDUCATION IN DARWIN

9. Adult Education Centre Post-school education in Darwin is provided by the Adult Education Centre. Tuition is given in commercial subjects, apprenticeship courses, post-trade training, sub-trade skill training, general and adult education and secondary education up to matriculation. Tutorial assistance is provided for external students undertaking tertiary courses. Enrolments at the Centre rose from 1,391 in 1964 to 3,696 in 1970 and subject enrolments over the same period from 1,809 to 4,470.

10. The Adult Education Centre occupies the premises of the original Darwin High School in Wood Street, immediately adjoining Darwin's business district. It comprises four classroom blocks, a library and tutorial room and an office. Use is also made of a classroom block at a nearby primary school. The buildings, constructed over a period ranging from pre-World War II to 1957, are timber-framed with asbestos-cement wall cladding and corrugated iron roofs. They are generally in poor condition and are inadequate to meet existing needs satisfactorily or to cope with the growing demand in Darwin for post-school education in various forms. The lack of proper workshop and laboratory facilities for trade and technician training is particularly serious and is having an inhibiting effect on development of these areas of education. The library of 200 sq. ft is totally inadequate.

11. The site is too small to permit expansion of facilities even to cater for present needs, and it is required for extension of the city's commercial development. It is obvious that not only are the facilities of the Adult Education Centre inadequate for current needs but they are also quite incapable of catering for the demands which are arising with Darwin's continued population growth.

THE PROPOSED COMMUNITY COLLEGE

12. The Role In 1968, an investigation was conducted to assess the needs of post-school education in the Northern Territory and the type of facility required for such needs. Demands on the Darwin Adult Education Centre indicated an immediate requirement for post-school education in the following categories:

- trade training at all levels including skilled training for Aborigines;
- tutorial assistance for students studying externally with State and overseas institutions;
- adult education in a wide range of subjects including crafts, foreign languages, physical education, creative arts, current affairs;
- secondary education for persons who have left school;
- semi-professional and technician training; and
- in-service training and ad hoc courses to meet special needs.

13. The facility suggested as being best able to provide these forms of education, many of which cannot be met satisfactorily by the Adult Education Centre, and to meet other needs which are likely to emerge as the population grows, was a "community college". A planning committee was then established to advise on the development of such a college, its siting and initial building requirements.

14. No institution specifically planned to offer such a comprehensive range of services has yet been established in Australia, though they have become increasingly common in overseas countries. The concept usually provides an

extensive range of vocational training programmes at sub-tertiary level, continuing education of various kinds and tertiary level courses for which credit towards a first degree can be gained. They concentrate on the specific post-school educational needs of the communities in which they are located. Importantly, they are flexible, being able to adapt quickly to changing educational circumstances and needs.

15. The Committee were told that the proposed Darwin Community College has not been specifically modelled on these overseas institutions though experiences there have been drawn upon by its planners. The similarity of the proposal to overseas institutions arises from the general educational situations both have been developed to meet.

16. We were also given evidence that although it is growing rapidly, Darwin's population will be insufficient to justify for some time the establishment of a separate specialised tertiary institution like a college of advanced education or a university. Nevertheless, because of its geographic isolation, Darwin has an immediate need for a comprehensive institution which can meet a wide range of post-school educational needs. The present requirement, which is urgent, is for an institution which can provide a wide variety of formal and ad hoc courses and which can adjust quickly to changes in community needs.

17. The Need The Committee noted that due to a lack of statistical information, precise data on the demand for post-school education in Darwin is difficult to obtain and that in the planning of the project the comments of industry, business, government departments, professional organizations and other interested agencies in Darwin were therefore sought. A survey of parents of secondary school pupils in Darwin was also conducted.

18. The population of Darwin has grown from 8,000 in 1954 to 33,000 in 1970 and on current trends it is likely to be more than 50,000 by 1974.

Enrolment at government secondary schools will increase from 1,300 in 1964 to an estimated 3,100 by 1974.

19. Until now, post-school education in Darwin has been based on the Adult Education Centre whereas most towns of similar size in other parts of Australia have a properly equipped technical college and are probably within reasonable distance of centres with specialised tertiary facilities. We were told that due to the paucity of the available facilities and services, many families are forced to leave Darwin to enable their children to obtain post-school education in centres where appropriate facilities exist. Unless more satisfactory provisions are made in Darwin it is clear that this trend will continue.

20. The following table of subject enrolments illustrates graphically the extent of the growth in demand for post-school education in Darwin between 1964 and 1970 - despite the absence of proper facilities.

Type of Subject	1964	1965	1966	1967	1968	1969	1970
University	38	22	51	80	39	42	36
Diploma/certificate	111	111	69	224	86	85	63
Secondary	338	344	420	610	618	720	648
Apprentice (receiving full instruction)	45	38	44	86	89	116	132
Commercial (typing etc.)	286	530	318	400	315	386	522
Cultural (art, music, drama)	374	384	386	763	780	855	837
Craft	288	366	363	506	463	598	963
General adult education	329	541	476	665	962	1,000	1,269
TOTAL	1,809	2,336	2,127	3,334	3,352	3,901	4,470

Based on an expected growth rate of 15%, 5,140 subject enrolments are confidently expected in 1971, increasing to 7,800 in 1974, clearly demonstrating the increasing demand for a variety of post-school courses.

21. Evidence was presented to the Committee which showed an increasing demand from Darwin employers for labour in fields in which trade or other vocational training qualifications is important especially in the manufacturing, building and construction, and transport industries. Increasing apprentice enrolments at the Adult Education Centre, both actual and projected, confirm this evidence. It is felt, however, that the small demand for post-trade training so far revealed reflects an absence of facilities. It is confidently expected that adequate facilities and growing specialisation in trades will stimulate a rapid growth of interest in and need for post-trade training. Similarly, good facilities would allow a significant expansion in the sub-trade skill training programmes being provided for young Aborigines.

22. A demand is also apparent for courses providing intensive refresher and in-service training in a variety of fields, e.g. in the pastoral and fisheries industries, in soil technology and in a number of areas of activity covered by the Northern Territory Administration's Welfare Branch. None of these needs can be met at present. In addition, needs have been demonstrated in fields like business education and in various semi-professional level disciplines such as drafting and surveying. Once again very few of the needs can be met satisfactorily.

23. As Darwin cannot support a separate tertiary institution for some time and because there will be a growing demand for tertiary education from the increasing number of matriculated school leavers and from the community in general, there is also a need for facilities to assist this form of education.

In relation to courses offered by universities and colleges of advanced education elsewhere, the need is seen for the college to improve and develop existing tutorial services so that Territory students taking external courses from such institutions will have the best possible chance of success. However, it is not seen that the college will ever develop as a fully tertiary institution in its own right.

24. We concluded that there is thus an urgent requirement for a post-school educational institution which can provide a wide variety of formal and ad hoc programmes according to demand, and which can adjust quickly to changes in community needs.

25. Proposed Facilities The proposed Community College planning recognises the impossibility of extending the totally unsuitable and ramshackle facilities of the Adult Education Centre or of using that site for the proposed development.

26. The facilities now proposed have been designed for flexible use at several levels and to enable them to be adopted to changing community needs. However, to avoid duplication of expensive facilities and to ensure that those already available receive maximum use, it is proposed to use local high schools for certain of the college's community education courses, e.g. art, foreign languages. Those facilities proposed for the college which will not be used initially for vocational education will be used to meet substantial community education demands which cannot be catered for at the high schools. Other facilities proposed will enable it to perform fully its community education role.

27. Workshop/laboratories, laboratories and special purpose classrooms have been included in the proposal only where it is evident that they will be needed when the college opens in 1974.

28. If all the proposed facilities are in full use, the college could accommodate 1,000 students at the one time. But by efficient timetabling arrangements, it is expected to be able to cater for a much larger enrolment and be adequate to meet Darwin's needs for a considerable time.

29. The college is to have an administrative centre for some 20 staff, a ground floor cafeteria etc. with a dining area seating 100 for both full and part-time students, student and staff lounges and an assembly and display area, and a theatre for teaching, public lectures and the college's formal and social activities. Workshop/laboratories for the building, electrical, automotive, mechanical engineering, welding, and plumbing and sheet metalwork trades are also proposed. A library on the first and second floors of the library and cafeteria building will cover an area of some 7,000 sq. ft and will contain a reading room and bookstock, study and audio-visual carrels, four group discussion rooms, a staff preparation room, offices and storage areas.

30. A three-storey academic block will contain six general purpose classrooms, a lecture room with audio-visual aids, two tutorial/discussion rooms, laboratories for physics/electronics and chemistry/biology together with specialist rooms for typing and shorthand, hairdressing, drawing and drafting, home economics, soft furnishing and dressmaking, and business machines. Associated facilities include offices, two staff room/studies and storage areas.

31. To cater for most of the Aborigines taking courses, for students from outside the Darwin area on full-time courses and for those attending intensive short-term courses, residential facilities to accommodate 72 single and married students are proposed.

32. Miscellaneous facilities include a caretaker's office, a maintenance workshop, an inflammable liquids store, a central toilet block and first-aid

room and change rooms. An oval, two tennis courts and two basketball courts will be constructed and also an access road, walkways and parking areas for 300 cars.

33. Committee's Conclusions The Committee concluded that there is a need in Darwin for a post-school educational institution for the purposes outlined in paragraphs 12 and 21 to 23. We also believe that the community college concept with the range of facilities proposed will be a satisfactory solution to the immediate demands for post-school education in Darwin. There is, therefore, a need for the work in this reference.

THE SITE

34. The site which covers some 50 acres of wooded country is located in Dripstone Road and adjoins the sub-divisions of Alawa, Nakara and Brinkin. It is well situated for the purposes of the college as it is in the heart of Darwin's rapidly developing residential suburbs north-east of the city area.

35. The land slopes gently to the south where its frontage adjoins the tidal flats near the mouth of Rapid Creek. When the proposal to convert the tidal flats to an ornamental lake eventuates, the outlook from the campus will be greatly enhanced.

36. The proposed disposition of buildings on the site allows ample room for future expansion. The Committee believe that the site selected is suitable.

DESIGN

37. Layout The planning of the college as a campus with buildings grouped according to their function will also allow for future expansion of individual facilities.

38. The focal centre of the campus is to be a paved and landscaped plaza about which will be located the administrative centre, the library and cafeteria building and the theatre. The main academic classroom block will be nearby to the east. The trades' workshop/laboratories are to be noise isolated to the west and separated from the central buildings by landscaped areas and a car park.

39. Likewise, the complex of residential buildings is to be relatively isolated in the south-east corner, adjoining Lakeside Drive. The various sporting facilities are disposed near the eastern extremity of the site.

40. Existing indigenous flora is to be retained where possible and selected areas will be landscaped and planted with trees and shrubs.

41. The Buildings The administrative centre will be a single-storey building planned to accommodate some 20 administrative and executive staff. The three-storey library and cafeteria building will provide at ground level dining and kitchen facilities, a kiosk, student and staff lounges and assembly and display areas. Seminar and teaching aids rooms will be on the first floor and the library reading room and book storage on the top floor.

42. The two-storey theatre has been designed as a teaching facility as well as an auditorium for public performances, lectures, films, drama and social occasions. The auditorium will seat 300.

43. The academic block to be situated to the east of the theatre will be a two-storey building housing lecture rooms, tutorial/discussion rooms, general purpose classrooms, laboratories and craft rooms.

44. The workshop/laboratories for the building, electrical, automotive, mechanical engineering, welding, plumbing and sheet metalwork trades will be single-storey buildings of uniform design and appearance located west of the administrative centre. They will provide storage for equipment, basic

materials and space for instructing and practical work. A single-storey toilet block and first-aid room is being located near the workshop/laboratories to serve these facilities.

45. The central chiller plant room and the inflammable liquids store are both one-storey buildings. In addition to chiller equipment, the plant room will accommodate the caretaker's store and office and the electrical substation. An enclosure will screen cooling towers, incinerators and a garbage area.

46. The proposal for residential accommodation as submitted to the Committee was for a complex of buildings south-east of the academic block and relatively isolated from it. The residential units of single and double storey construction were each to contain pairs of study/bedrooms divided by toilet and shower facilities and a small kitchenette. Internal fittings in the study/bedrooms were to include a built-in wardrobe, shelving and desk and in the kitchenette, broom and storage cupboards, stainless steel sink, small electric hot plate and refrigerator. A building containing a common room, laundry, general store and cleaner's store were to complete the complex. In view of the comments in paragraphs 5 to 8, the present report does not cover this aspect of the proposal.

47. Future Facilities The master plan of the college provides for the future construction of the following additional facilities:

- two academic blocks;
- residential units providing accommodation for up to 40 students;
- a multi-storey hostel to provide additional residential accommodation;
- a swimming pool;
- additional car parking for 300 cars; and
- two hockey or soccer fields.

CONSTRUCTION

48. Structural The building structures will generally be cast in situ reinforced concrete with concrete floors. Single-storey buildings will have load bearing walls or in the case of the workshop/laboratories and central chiller plant building, steel framing with masonry infill panels.

49. Roof trusses and roof framing will be mainly of light steel or timber sections.

50. Finishes and Materials Finishes and materials have been selected in keeping with the climatic conditions and the character and purpose of the buildings. External walls will be of concrete masonry, aluminium framed sandwich type panels, exposed aggregate concrete panels or off-form concrete. Doors and windows will be aluminium framed and the roofs will have galvanised steel roof decking. The plaza and covered ways will be paved with concrete having a fine aggregate surface.

51. Internal walls will be fair faced concrete masonry or rendered and painted brickwork as appropriate. The academic block will have sound attenuated demountable partitions for sub-divisional flexibility. Toilet partitions will be pre-cast terrazzo and walls ceramic tiled.

52. Floors generally will be reinforced concrete with vinyl tiles. However, those in the library and the offices of the principal, vice-principal, accountant and registrar and the recording studio in the academic block will be carpeted. The theatre auditorium and stage will have a timber floor.

53. Ceilings will mainly be suspended acoustic tiles with some areas finished with fibrous plaster. Internal doors will have a solid core plywood natural finish.

54. Mechanical Services The administrative centre, the cafeteria and library building, the theatre and the academic block will be air conditioned from a central chilled water plant. Water lines between the chiller plant and the air handling plants in the buildings will be carried within the covered way roof space. The workshop buildings will be partly air conditioned by individual packaged units and ceiling fans will be used in the main workshop areas.

55. Other mechanical services will include exhaust air systems in the kitchen, electric welding booths, battery areas and spray painting booths and electric hot water systems throughout. There will also be refrigerated drinking water units, garbage and sanitary incinerators, L.P. gas to the workshop buildings and the academic block, exhaust ventilation in the spray painting booths of the plumbing and sheetmetal workshop, kitchen equipment, a library book hoist, a sawdust extraction system in the building workshop and compressed air reticulation to all workshop/laboratories.

56. Electrical Services Electricity will be supplied by underground cable to a substation in the chiller plant building. Lighting will be mainly fluorescent, a master/slave clock system will be installed and a public address system provided in the administrative and instruction areas.

57. The plaza, terraces and internal roads will have street lighting, and security lighting will be installed as required. Telephones will be installed and provision made for closedcircuit television and television broadcasts in teaching and study areas.

58. Hydraulic Services Water and sewerage services will be connected to the nearby mains and an underground sprinkler system installed for the oval and gardens.

59. Fire Protection A thermal automatic fire alarm system will be used throughout. Fire extinguishers, small bore hoses and hydrants will be located at appropriate points.

60. Roads and Car Parking Roads and parking areas for some 300 vehicles will be kerbed and guttered and bituminous surfaced. The master plan includes parking areas for a further 300 vehicles if required.

61. Stormwater Drainage Stormwater from the surrounding residential sub-divisions which at present discharges into open earth channels running through the site will be piped to a point west of the oval and thence into open pitched channels which will discharge into Rapid Creek. The watercourse is to be landscaped.

62. Committee's Recommendation The following extract from the minutes of the meeting of the Committee when it debated the evidence on this reference, reflects the views of members.

" It was moved Senator Dittmer, seconded Mr. James that an interim report be tabled recommending that the proposal as submitted proceed, except that final consideration of the residential accommodation be deferred until the study of this matter by the Department of Works is completed. Debate ensued.

During the debate the view was put by Senator Branson and supported by Messrs. Johnson and Fulton that the Committee should support the project as proposed without reservation. The Committee divided.

<u>Ayes</u>	<u>Noes</u>
Senator Dittmer	Mr. Johnson
Mr. James	Mr. Fulton
Mr. Kelly	Senator Branson
Mr. Whittorn	
Senator Prowse	

63. The Committee therefore recommend the construction of the work in this reference, except for the residential accommodation complex.

PROGRAMME

64. It is expected that after the approval to proceed is given, the preparation of final drawings and tender documents will take 10 months. Construction time for the work is estimated at two years after a contract has been let. It is aimed to have the college completed in time for teaching to commence in March 1974.

ESTIMATE OF COST

65. Excluding the cost of the residential accommodation complex, the estimated cost of the work when referred to the Committee was \$3,610,000 made up as follows:

	\$
Building works	2,135,000
Mechanical services	470,000
Electrical services	322,000
Hydraulic services	198,000
Civil works	485,000
	3,610,000

OTHER OBSERVATIONS

66. At the hearings in Darwin, the Committee took very useful evidence and received written submissions from a number of organizations and private witnesses. Two matters in particular arose from this evidence on which we sought additional written clarification before completing our enquiry and on which we feel comment is now required. These matters touch on the adequacy of the proposed library and facilities for modern audio and visual teaching techniques.

67. In general terms, the Committee concurs in the official approach to the planning of this project in that final determination of the detailed curricula is properly the responsibility of the principal and council of the college, when appointed. It is therefore sufficient to note at this point that the planning of the facilities now proposed has had as its aim the provision of an institution with an in-built flexibility capable of catering for the range of courses likely to be contemplated. Furthermore, the master planning of the complex allows for extension or duplication of all the facilities now proposed.

68. On examination, we found that the library facility would have initially a bookstock capacity of 25,000 volumes and seating for 80 to 100. These facilities are comparable to those found in new colleges of advanced education with 600 effective full time students. In the light of the range and nature of the courses likely to be offered in Darwin, this scale of amenity appears to be adequate for the known and expected requirements. We noted that the library area can be readily extended if and when required.

69. On the question of dial access and other audio-visual aids, the Committee concluded that it would be precipitate at this point to commit future management of the college to a particular type of educational technology considering the detailed decisions which have yet to be made on the courses to be provided. It is important to note that the building planning has been carried out to ensure flexibility of use of the college services and that when decisions are taken on the form of technology considered appropriate to the particular requirement, ducts, studio space and storage will have been provided to enable that need to be met.

RECOMMENDATIONS AND CONCLUSIONS

70. 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. | NOT ONLY ARE THE FACILITIES OF THE ADULT EDUCATION CENTRE IN DARWIN INADEQUATE FOR CURRENT NEEDS BUT THEY ARE ALSO QUITE INCAPABLE OF CATERING FOR THE DEMANDS WHICH ARE ARISING WITH DARWIN'S CONTINUED POPULATION GROWTH. | 11 |
| 2. | THERE IS A NEED IN DARWIN FOR A POST-SCHOOL EDUCATIONAL INSTITUTION FOR THE PURPOSES OUTLINED IN PARAGRAPHS 12 AND 21 TO 23. | 33 |
| 3. | THE COMMUNITY COLLEGE CONCEPT WITH THE RANGE OF FACILITIES PROPOSED WILL BE A SATISFACTORY SOLUTION TO THE IMMEDIATE DEMANDS FOR POST-SCHOOL EDUCATION IN DARWIN. | 33 |
| 4. | THERE IS A NEED FOR THE WORK IN THIS REFERENCE. | 33 |
| 5. | THE SITE SELECTED IS SUITABLE. | 36 |
| 6. | THE COMMITTEE RECOMMEND THE CONSTRUCTION OF THE WORK IN THIS REFERENCE, EXCEPT FOR THE RESIDENTIAL ACCOMMODATION COMPLEX. | 63 |
| 7. | EXCLUDING THE COST OF THE RESIDENTIAL ACCOMMODATION COMPLEX, THE ESTIMATED COST OF THE WORK WHEN REFERRED TO THE COMMITTEE WAS \$3,610,000. | 65 |


(C.R. KELLY)
Chairman

Parliamentary Standing Committee on Public Works,
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CANBERRA.

7 April 1971.