

COMMONWEALTH OF AUSTRALIA.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

REPORT.

Relating to the Proposed

Erection of an

AUTOMATIC TELEPHONE EXCHANGE AND CARRIER BUILDING

at

BATHURST, N.S.W.

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COLLIGIVEALTH OF AUSTRALIA.

ALL. E T.R. STANDING COMMITTEE ON FUBLIC WORKS.

" Y . PIC FELEPHONE EXCHANGE, BATHURST, N.S. Y.

REPORT.

The Parliamentary Standing Committee on Public Yorks, to shick the land of Representatives referred for investigation and reart the Lastick of the erection of an Automatic Telephone I change and Carrier Building at Bathurst, New South Vales, has the known to report as follows:

SECTION I . - INTRODUCTION.

GENERAL.

1. It thurst is situated in a 25 mile wide valley on the Blue cuntains I blelinds and is 132 miles west of Sydney. It is the centre of a ver rich agricultural district producing large crops of vertables for city consumption and for local canning. Due to its rich. Let it agricultural and pastoral production, it necessarily collo that there is considerable activity in the associated secondary industric such as canning factories, flour mills, butter factories etc., and, with the completion of a large dam on the Capiell River and other proposed expansion programmes, it is expected that there will be a further increase in both population and industries.

THE EXISTING BUILDINGS.

2. Intrinst telephone exchange at Bathurst was opened in 1838, ad, togither with other post-factivities, was cerried on in to building flenking the Court House in Russell Street. As a right of Pederation these buildings were transferred to the Commonwillum and 1808, and have served departmental requirements since that the without major alterations. Both structures are two stories, built in a colonial style with colonnades. While making viluable contribution to the architectural atmosphere of the city to buildings have long become unsuited to the demands of modern facilities, and the departmental activities have outgrown them.

SECTION II - THE PRESENT PROPOSAL.

THE BUILDING.

- 3. The present proposal is to erect a new building, with a usual floor space of 15,296 sq. ft. to house the automatic telebour exchange, trunk exchange, and carrier equipment, with necessary offices and amenities for the staff required.
- the building will be a two storey structure, having a roll orded colorete frame with a steel framed roof over the mojor birt. This reall the building will have a red brick best and pressure store facing on the walls, while internal wells will be of brich.

5. The structure will be placed at the rear of F site, recently acquired in Howick Street, so that space will be verifiable for the construction of a large Post Office building i. so the years to come. It was originally proposed to include the receipest Office building in this proposal, but, owing to the secret of materials and labour for the work, only the automatic Fale home Exchange project is put forward at the present time.

SECTION III - THE COMMITTER'S I VESCUE TO B.

GENERAL.

6. The Committee studied the plans and paid a vasit of inspection to Bathurst, to view the proposed site, to see the present buildings, and to acquaint itself inth the position obtining at Bathurst in connection with the establishment, the still and the equipment. The Committee took evidence in Sydae and in Bathurst from senior officials of the Postmester-Jeneral's Department concerned with the planning of the proposed work, from the Director of Architecture in the Department of 'or's and Tousing, and from various witnesses in Bathurst representing the professional, commercial and other interests in the locality.

THE BUILDING.

Architecture.

7. The building is a functional one, and, being placed at the rear of the site where it is to be obscured at a liter date by the new Post Office building, no elaborate architectural features are required. However, the building is to be of placeting accerned sign, having vertical louves on the south west elevation forming a useful protection from the sun while adding a rather distinctive architectural feature to this facade.

The Ground Floor.

8. The Ground Floor will house the Automatic Talabhone Exchangequipment and automatic Trunk Switch equipment. It also provides space for the heating and ventilating plant, power room, battery room, stores and toilets.

The First Floor.

9. The First Floor provides for the Trunk Room and large Carrier Equipment Room, as well as a technicians' for soon and store. Various shenties will also be located on the first floor, and store will be available for Postal Institute, class room, lunch room lirest aid, women's lockers, and toilets. When the building was originally planned allowance was made for a possible additional floor, and columns were shown in the centre of the equipment room. Fix fost esting General's Department now regard such an addition as very unlittless the columns have been omitted and a steel trussed roof substituted in lieu of the concrete slab and framed roof.

THE SITE.

10. The site proposed for the building is a level errs of lend having a frontage of 165 feet to Howick Street. It is considered to be the most suitable site for the purpose, and it is conveniently situated for the existing underground plant. A considerable along the foliation has taken place for some time sest in convenient its the acquisition of the site, but arrangements have now been and with the State Government for the purchase of the lend for the project, subject to survey, and with certain provises for the protection of

the existing technical college, and for the transfer to the State, when it is possible to vacate them, of the present Post Office and Telephone buildings. This agreement regarding the site was only concluded just prior to the investigation by the Committee

- 11. The area finally decided upon for acquisition is slightly smaller than that originally shown on the plans, and will affect the plan of the future Post Office building, indicated on the plans for the Automatic Telephone Exchange Building now being investigated. The Committee therefore made inquiries to ensure that the site, if used for the Automatic Telephone Exchange Building, would also be sufficiently large to provide for the future Post Office building. Investigation appeared to be necessary to the Committee particularly as the amended boundary cut off part of the Public Telephone Annexe shown in the Post Office plan.
- 12. The Committee was informed, however, that the area to be acquired would be sufficient for the proposed Exchange and for the future Post Office building, though slight adjustments of the plens would have to be made to bring the structure within the new boundaries.
- 13. Inquiries were made regarding the bearing qualities of the land and the possibility of using any other site for the purpose, but it was generally agreed by all the witnesses that the site in Howick Street was the most suitable. The building for the Automatic Telephone Exchange will be placed at the rear of the site, and will occupy a gross area of 10,210 square feet, leaving the front of the block for the Post Office building when required.
- 14. As it will be some years before the new Post Office can be built, and it is considered that there is sufficient land for the proposed exchange as well as the future Post Office, the Committee is satisfied that the site is a good one and suitable for the purpose

LECHANICAL SERVICES AND EQUIPMENT.

- 15. The original proposal included an air conditioning plant to serve the major portion of the building, particularly the equipment rooms, but, following the Prime Hinister's directive for economy, further consideration was given to this provision, and it was considered that full air conditioning could be satisfactorily dispensed with in the climate of Bathurst. Accordingly the air conditioning system has been replaced by a mechanical ventilation plant which incorporates air filtering and air heating to serve the Automatic Telephone Exchange and Trunk Switch Equipment Room, York-room, Clerical and Superintending Technicians' Room on the Ground Floor, and Carrier Equipment and Trunk Room on the First Floor.
- 16. The Committee made inquiries with the object of ensuring that the economy schieved by replacing the air conditioning system was not being made at the expense of satisfactory operation and maintenance of the equipment or the comfort of the staff operating the exchange. The Committee was informed, in evidence, that considerable thought had been given to the matter, and it was considered that, with the comparatively dry stmosphere of Bothurst, the refrigeration portion of the equipment could be dispensed with. Provision has been made, however, for the plant to be so designed that, in the event of technical circumstances demonstrating the necessity for full sir conditioning in the future, conversion could be made without difficulty. Under present conditions this does not appear to be likely, and the system planned should prove satisfactory for the nursose.
- 17. Due to its geographical location, Bathurst is not subjected to the extreme humidity which applies on the coastal belt, and mechanical vantilation and air filtering, which are essential to provide dust free cir to the equipment areas for its efficient operation and to provid. a degree of staff comfort in the operating arc: s by providing air movement, are to be installed. A heating unit will be provided for use in the winter months.

18. As provision is made for future conversion to full air conditioning if this should prove to be necessary, the Committee is stisfied that the mechanical ventilation as planned should be installed.

ESTIMATED COST.

19. The estimated cost of the structure as referred to the Co...ittee 165 1167,600. Owing to amendments to the plans there is a reductio. in the estimated cost of the building, based upon wriction that tenders are called, as constantly changing circumstances are coverning building costs to-day. The figures estimated at the above date are :-

	£
Building work, including foundations Blectrical installation, including lighting Plumbing, drainage, fire and gas servicesechenical ventilating plant,	105,600 7,600 2,877
hesting, boiler plant, exhaust fans, hot water systems, cat head and hoist fire extinguishers Sealed roadway	, 16,200 358
Total	£132,635

20. In addition to the building itself the establishment of the ne exchange will involve a heavy expenditure in respect of e uniment and installation. Based on the present cost of materials and labour, the estimated total expenditure to fully establish the mathematic trunk and subscribers' exchanges is £344,635, made up as Collows:

£ Building comprising ground and first floors 132,635 utomatic Exchange Equipment for 2,000 lines - to be installed on the ground floor and includes power plent and standby 90,000 alternator Trunk Exchange -15 positions to be includ-22,000 ed on 1st floor Automatic Trunk Switching Equipment - to be installed on 1st floor Subscribers' equipment cost of replacing subscribers' magneto equipment 30,000 by automatic Line construction cost of diverting line cables 10,000 Total £344,635

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FINANCIAL STATEMENT.

21. The following financial statement is based on the assumption that the date of cutoverfor the new exchange will be July 1, 1953.

	£
Capital cost Capital cost, new and in situ annual working expenses Total annual charges, in-	385,000 479,000 30,460
cluding working expenses, interest and depreciation	58,720
	£
mecoverable value of Assets to be demolished -	
anutl Exchange Pamporary Automotic Prohange geto Subscribers' instruments Carrier installation	3,000 18,000
	1,500 60,000
	£82,500
	-

22. The annual revenue from telephone rentals, local calls and chonogra is fro subscribers' lines and public telephones connected to the Bathurst manual exchange during the year ended 30th June, 1850, totalled £13,000, whilst from originating trunk line calls the revenue was £14,000, making £27,000 in all. Based on the existing charges for rentals and calls it is estimated that the annual revenue will increase to a total of £49,000 by the date of cutover in 1953, and to £80,000 at the end of the 20 years' period in 1973.

THE TOP CONSTRUCTION.

23. It is estimated that, upon receipt of approval to this proposed, tenders could be called within twelve months, and that the taken for construction of the building would be approximately two years, depending upon conditions of supply of materials and labour during the period.

NECESSITY FOR THE BUILDING.

Telephone Development.

54. Che of the most important reasons which demonstrate the nachasity for the new telephone exchange is the greatly accelerated development to athurst and the surrounding districts. A considerable

amount of valuable evidence was submitted to the Co. witt : showin the growth of the population and of various business : ctiviti's over the past few years.

- 25. Bathurst is the business centre for a large number of towns and villages, and omnibus services run to inthurst incoming the End, Oberon and Burrega, serving intervening villages. Thus service also connects with Orange regularly so that in Assengers may use the terminal at Bathurst and continue on to Orange. The population within the present restricted city boundaries is sent if to be approximately 13,000, with a further 5,000 inthis its cavine so the Migrant Training Centre, established in the large military or potential Bathurst has had the effect of increasing the population, as many migrants are settling there.
- 26. The local call network covers a five mil radius from the Bathurst Post Office, and, at the end of last year 1,24% subscribers were connected, whilst 156 applicants were awaiting telephone services. The development in subscribers' services at Enthurst during the fifteen years prior to 1941 sylvaged 16 lines were annual. During the war years the rate of development rese to 25 lines per annual, and since 1946 the average annual development has rescond the high figure of 110 per annual. It is estimated that the fiture growth of subscribers' lines will be 1,700 in 1953, increasing to 2,100 in 1953, and reaching 3,150 by 1973.

Development of the District.

In order to forecast the requirements for the district for the next twenty years it has been necessary to estimat the growth of the demand for telephones in the surrounding errors. This has been a difficult matter as Bathurst has proved a most suitable place for the establishment of large business enterprises in the past far years, and is likely to figure prominently in the movement to discentralise industry. Already there is marked growth in the establishment of secondary industries, with a consequent more say in primary industries upon which they depend for suitables of referrings. The secondary industries include a large cannery, course from on

which the products are grown; factories for the production of ladies' clothing and shoes; large flour mills, buttir factories and a Rabbit Freezing and Ice works, Tomsto pulp forks, count pipe works, railway workshops and various enginering establishments. Nany other industries have been prevented from commencing operations at Bathurst in the past owing to the lack of sufficient water, but this is now being overcome, as a large dam is being constructed on Campbell's River, 12 miles above the city, and this ill provise an adequate water supply for further development of industry, and will enable still closer settlement of the rich alluvial all ts round the city. Lack of adequate telephone facilities is the only remaining obstacle to a great expansion of industries in the district.

Inadequacy of Present Exchange.

- 28. The present activities are conducted in two buildings, built prior to Federation and transferred to the Common melth in 1906. These buildings have served departmental requirements since that time without major alterations, and are now muste inadequate to meet the needs of Bathurst.
- 29. The <u>Post Office Building</u> accommodates the postal hall,
 Postmaster's Office, mail room and telegraph operating room on
 the ground floor, while the postal delivery staff and postal Institute
 activities are located on the first floor.
- 30. The <u>Telephone Exchange Building</u> provides space for the power and battery room, technicians' workshop and store, and the equipment room on the ground floor. The first floor accommodites the District Inspector and staff, the manual exchange stitch room and amenities for the operating staff.
- 31. These two buildings are extremely congested, both from the point of view of personnel and equipment, and, during its inspection, the Committee was impressed with the difficulties under which the staff are working in these old buildings. As there is no lurt er room to expand the services of the local exchange in the existing building, and space must be provided, it is processed to insual a 500 line outcomestic exchange in a temporary building of the front

portion of the new site in Howick Street, pending the provision of the proposed new exchange building.

- 3.. Frunk Lines Due to its geographical location, in the horw c. . propressive farming, agricultural and pastoral district, .t. 100 co ...nication facilities to surrounding towns and the strong community of interest to both Sydney and the Western districts of a South Thes, Bathurst has become one of the largest communication crather in the Testern Tablelands area. It is an important trunk sufficiency deare, with direct channels to Sydney and the correct Air Clastricts.
- 33. Additional trunk line facilities to Sydney and to other the continuous argently required, and to provide these the installation of further leng line equipment is necessary. During the next two pass correct and associated equipment must be installed at Bathurst, allest doubled the present facilities. It has been necessary, as a temporary measure, to move the District Telephone Officer and his stall to a prefabricated building erected on the permanent exchange that in to fick Street, so that additional space may be made available for cable quipment in the existing building.
- J4. .. Yew Trunk Cable is being laid between Sydney and Bathurst to provide an roved trunk line service in the western portion of New booth Blus, provision is also being made for 132 channels on an into it route between Sydney and Melbourne, and Bathurst will become for proceeding of the cable of the cable is . . 11 adv-nord and is now beyond Lithgow, with the section to . thought we be completed shortly. This involves a very large capital ... Alors and it is desirable that the cable be placed in service it a. Erliest opportunity. This inland route is regarded as Articularly important also from a defence point of view, as it provid s in liternative route to the more vulnerable coastal one. At v - 3 : time it provides facilities necessary in the development of the inland country through which it passes, and in which extension of talk those services are particularly desirable. It is therefore all the cor an ortant that a building suitable to house all the equipment necessing should be constructed without delay.

Fostel Accilities under the existing conditions are 35. intirily inedequate and service to the public can only be carried o with Sifficulty. Every available space is overcrowded, and use other arros.s. Satisfactory space for amenities for all the staff c anot be provided until the ultimate post office building is or ct.d, but to a alleviation is required at once from the congested I cramed conditions operating in the present buildings. As the ost Oilic. building envisaged on the new site in Howick Street will not be evailable for years to come, it is essential that some of the 1040 torusent used for telephone purposes shall be released for testal use. This can only be done when the new automatic telepage. Exc. : is built, thus further demonstrating the urgent modestity of proceeding with the erection of the proposed building. at a result of its inspection of the existing buildings and working conditions, and efter consideration of the various points erent is essential and urgent, and the project should be given a might priority in view of its important bearing on defence require-Ments and development on the country districts.

THE PLANS.

in plans referred to the Committe, included those for the

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Proposed futchable telephone exchange at the reor of the site, and flao statch plans of the new post office building to be erected on the price. Street frontage at a later date, and the Committee was the to consider the usefulness of the whole site for its ultimate purpose office the decision to erect the new exchange was put into the control of the future the use of this valuable site.

36. After giving full consideration to the requirements of the exchange, and having studied the plans in the light of the vibracy brought forward, the Committee is satisfied that the plans of the exchange building are suitable for the purpose and will provide for building which will be effective for many years to come.

39. The plans of the projected new post office were now considered in detail, as that part of the proposal we not referred to the Committee at this juncture. They were useful, now were in determining the best disposition of the exchange building on the site, and it has been shown that the nuture development of the post office plans will have to include reserve as and of the reduced reserve of land which has now been acquired for the jurpose.

MATERIALS AND LABOUR

this project, particularly in regard to its likely constitute with home building was considered thoroughly by the Colliter. The evidence shows that the majority of materials to a used in hims building will be drawn from supplies not used in hims, building, while some of the materials are availably locally. It is a generally agreed by the witnesses that the effect of this building would not be full to any great extent in the house building programs for the district, particularly as a very large percentage of local hous a do not use bricks at all, and it is essential that the new cachings building should be eracted in order to assign in the development of a balanced building programme for the area. The Contracter spries with this view and recommends that the work should be proceeded with as soon as possible.

BRICK SUPPLY.

Bethurst appears to be in a particularly mappy position in regard to the supply of bricks for building purposes. In videous shows that the local kilns are producing at a rate sufficient to supply all requirements in Bathurst as well as supply seen in the from the surrounding districts. The bricks are of good quality, while raw materials and labour are available to expend the industry considerably. The Committee was impressed with the possibility a of extension of this industry, and, in view of the serious short your bricks in other localities it is suggested that handle have as should be taken to make use of this promising will it to reduct so icident surplus, after local desirable have been and, to commit

considerable quantities to be sent to other localities where bricks are urgently needed.

42. USE OF EXISTING BUILDINGS.

The agreement with the State of New South Wales, for the site upon which to build the new exchange, includes a condition that the two old buildings, of present being used for postal and telephone services, shall revert to the State as soon as they are no longer required for their present purposes. This arrangement will not be possible, of course, for a number of years, until the new post office building and the new telephone exchange building are both completed.

- 43. In the meantime the existing buildings will be used for expansion of the services badly overcrowded and increasing at the present time.
- expansion of the public space and corresponding increase in counter '
 length, and an increase of the post office activities into the
 area now occupied by the Postal Institute. This will afford much
 needed relief to the Post Office and Telegraph activities at
 Bathurst and should meet the anticipated needs of this section of
 the department in Bathurst for a number of years.
- Existing Engineering Building When the new telephone exchange is completed and the various telephone and engineering activities are removed to their new location, the existing building will be available for the accommodation of administrative staffs at present housed in other parts of the city, some of them in rented premises, and some in a prefabricated building term of placed on the new site.

EMERGENCY POWER PLANT.

46. It was stated in evidence that it is proposed to instal an emergency power plant, which will be in the order of abour 40 kilowatts, so that the services may be maintained in the event of a power failure. The Committee considered the proposal to include emergency plant in this building in the light of similar proposals in other recent exchange projects, and inquiries were made to ensure

that this practice would not ultimately lead to the accumulated expenditure of large sums of money on costly plant in various parts of the State, only provided for occasional use. The Committee was informed, however, that the plant provided was small and relatively inexpensive in comparison with the amount of valuable equipment to be maintained in the exchange, and it was considered that the department could not afford to run the risk of being unable to give service in such an important centre through the lack of a small installation, which would cover not only blackouts but also power failures due to lines breaking, faulty insulators, or a number of other causes from time to time.

AMENITIES.

- 47. The Committee was concerned with the inadequacy of the present amenities which have had to be curtailed in the existing buildings in the general search for more space in which to expand the ever growing technical needs. The p ans as referred to the Committee were subsequently smended, partly by the reduction of some of the space originally planned for the various amenities for the new building. Inquiries were made to ensure that the economics made in the plans were not carried to the extent of leaving unsatisfactory areas for the staffs.
- The amended plans now provide for Postal Institute and Library, with folding doors to a large class room which can be used for recreation when required. They also provide a lunch room, locker room, rest room, and first aid room, and inquiries elicited the general opinion that these areas would be sufficient to serve the needs of the new building until the new post office building is erected. More extensive accommodation and amenities for the staff will be included in the new post office building, and a rearrang ment of the staff accommodation will be made in order to cater for the whole of the staffs in the new exchange and post office buildings which will ultimately be constructed as a complete unit.
- 49. Some criticism was levelled at the placing of the lunch room next to the toilets, and the general question of the planning

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of toilet accommodation in the various exchanges was considered. It was stated, in evidence, that the departmental welfare section had examined the plans and considered that they adequately catered for the staff who would use them, but it was agreed that further consideration would be given to this question, following the Committee's inquiry.

SECTION 1V. - SUMMARY OF CONCLUSIONS.

- 50. The following is a list of the recommendations made by the Committee after a study of the plans and evidence:-
 - (1) The proposed exchange is essential and urgent, and the project should be given a high priority (paragraph 36).
 - (2) The plans for the exchange building are suitable for the purpose and will provide a building which will be effective for many years (paragraph 38).
 - (3) The site is a good one and suitable for the
 Exchange building as well as for the new Post
 Office at a later date (paragraph 14).
 - (4) Materials and labour to be used on the building will not seriously affect home building, and the new exchange should be proceeded with to essist in maintaining a balanced building programme (paragraph 40).
 - (5) Good quality bricks are available locally, and it is suggested that steps could be taken to increase the output there to provide supplies for use elsewhere also (paragraph 41).
 - (6) As provision is made for future conversion to full
 air conditioning if proved essential, the
 Committee is satisfied that the mechanical
 ventilation as planned should be installed
 now (paragraph 18).

- (7) Further consideration should be given by the "Velfare Section to the location and planning of toilets (paragraph 49).
- (8) Owing to the importance of the new trunk cable from a defence point of view, and in consideration of the high capital cost involved, it is essential that the new building be erected as soon as possible, in order to bring this equipment into use without delay (paragraph 34).

G.J. RANKIN Chairman.

Office of the Parliamentary Standing Committee on Public Works, Perliament House,

CANDERRS. A.C.T.

1 4 MAR 1951