Parliamentary Standing Committee on Public Works

REPORT

relating to

TELECOM AUSTRALIA, CONSTRUCTION OF NEW ACCOMMODATION AT RESOURCES MANAGEMENT CENTRE, CLAYTON, VICTORIA

(Fifteenth Report of 1985)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
1985

1 9 8 5

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

R E P O R T

relating to

TELECOM AUSTRALIA - CONSTRUCTION OF NEW ACCOMMODATION AT RESOURCES MANAGEMENT CENTRE, CLAYTON, VICTORIA

(Fifteenth Report of 1985)

Canberra 1985

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS
(Twenty-Eighth Committee)

Senator Dominic John Foreman (Chairman)
Percival Clarence Millar, Esq., M.P. (Vice-Chairman)

Senate	House of Representatives
Senator Gerry Norman Jones	John Neil Andrew, Esq., M.P.
Senator Dr Glenister Sheil	Robert George Halverson, Esq., O.B.E., M.P.
	Colin Hollis, Esq., M.P.
	Leonard Joseph Keogh, Esq., M.P.
	Keith Webb Wright, Esq., M.P.

EXTRACT FROM THE
VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES
NO. 47 DATED 9 OCTOBER 1985

27 PUBLIC WORKS COMMITTEE - REFERENCE OF WORK - TELECOM AUSTRALIA - RESOURCES MANAGEMENT CENTRE, CLAYTON, VIC.: Mr West (Minister for Housing and Construction), pursuant to notice, moved - That, in accordance with the provisions of the Public Works Committee Act 1969, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for consideration and report: Telecom Australia - Construction of new accommodation at Resources Management Centre, Clayton, Vic.

Mr West presented plans in connection with the proposed work.

Debate ensued.

Question - put and passed.

C O N T E N T S

APPENDICES — Page/Paragraph

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

TELECOM AUSTRALIA - CONSTRUCTION OF NEW ACCOMMODATION AT RESOURCES MANAGEMENT CENTRE, CLAYTON, VICTORIA

R E P O R T

By resolution on 9 October 1985 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposed construction for Telecom Australia of new accommodation at Resources Management Centre, Clayton, Victoria.

The Committee has the honour to report as follows:

THE REFERENCE

1. The work proposed under this reference comprises the following elements:

- an operations building to house data processing equipment, associated engineering services, staff facilities and amenities;

- an engineering services building which will accommodate emergency generators, supervisory systems, associated staff amenities, office, store and workshop facilities;

- a support building which will provide general office space for programming and administrative staff and provide appropriate amenities for all staff on site.

2. The total estimated cost of the work when referred to the Committee was $18.3 million at July 1985 prices.

THE COMMITTEE'S INVESTIGATION

3. During a private meeting of the Committee on 17 October 1985 officers of Telecom Australia and the Department of Housing and Construction (DHC) appeared before the Committee to explain details of the proposal and requested that the hearing into this reference be held in private.

4. The following is an extract from the Minutes of Proceedings of the Committee's meeting on Thursday, 17 October 1985, at Canberra:

> 3. TELECOM AUSTRALIA - CONSTRUCTION OF NEW ACCOMMODATION AT RESOURCES MANAGEMENT CENTRE, CLAYTON, VIC.
>
> - The Committee had before it copies of a Security Paper and formal evidence from Telecom Australia and a statement of evidence and supporting drawings from the Department of Housing and Construction. The work had been referred to the Committee on 9 October 1985. Telecom sought a private hearing rather than a public hearing and the Committee had requested a briefing on the proposed work before deciding the form of hearing.
>
> - The following officers were admitted:
>
> Telecom Australia
>
> - Mr Wal Brigden
> - Mr Bob Conlin
> - Mr Dennis Read

Department of Housing and Construction

- Mr Paul McGrath
- Mr Brigden made a statement, supported by Mr Read and Mr Conlin.
- Mr McGrath provided details on construction aspects.
- The Committee sought clarification on a number of matters.
- The witnesses withdrew.

Debate ensued.

Resolved - On the motion of Mr Millar:

That the hearing into the Resources Management Centre at Clayton, Victoria, for Telecom Australia, be a private one, in accordance with sub-section 18A(1) of the Public Works Committee Act 1969.

5. Paragraphs 18A(1) and (2) of the Public Works Committee Act state:

Inquiries by Committee

18A. (1) Subject to this section, where a public work is referred to the Committee for consideration and report, the Committee may direct that the inquiry by the Committee into the work shall take place in public or in private.

(2) Where the Committee directs that an inquiry by the Committee into a public work take place in private, the Committee may give directions as to the persons who may be present at the inquiry.

6. The private hearing was held in Melbourne on 31 October 1985. Telecom and DHC representatives formally put written submissions and plans to the Committee and were examined on those submissions.

7. Prior to the hearing the Committee inspected Telecom Australia's Resources Management Centre at Clayton, including the sites for the new accommodation.

8. A list of witnesses representing Telecom Australia and DHC who appeared at the hearing is at Appendix A.

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

BACKGROUND

10. Telecom Australia's resources management centres are located at Clayton, Victoria, and in North Sydney. The facilities in resources management centres are used to process the requirements of client oriented systems such as customer billing, customer records, finance and accounting information, engineering operations processing and records and a range of internal services.

11. In general, Queensland and New South Wales operate through the North Sydney centre, and Western Australia, South Australia, Victoria and Tasmania, are served by the Clayton centre. Facilities at both centres are expanding rapidly and accommodation requirements will be met by optimising the use of the two sites involved and then providing extra centres in Sydney and Melbourne at the appropriate time. Growth in demand has outstripped the availability of accommodation at Clayton and Telecom has been required to obtain bridging accommodation in leased premises to cater for immediate needs.

THE NEED

12. Telecom advised that continued growth in the demand for services has exhausted the supply of accommodation available at the Clayton site. There is consequently a need for additional accommodation and services to provide for future growth and to enable some dispersed elements of the resources management centre to be located on the one site.

13. Existing Facilities The existing main site and buildings were acquired in 1973. The first equipment to be installed in the industrial type buildings which were acquired with the site was commissioned in 1975.

14. A two-storey building at the front and a single-storey building towards the rear accommodate processing equipment, staff support, plant rooms and amenities areas. The buildings are 25 and 20 years old respectively. Over a number of years modifications and refurbishment of the buildings have been carried out. Recent or current development of the site is as follows:

- a paper store and uninterrupted power supply building constructed in 1983;

- upgrading of site security, car parking, water supplies, fire services and electrical services are currently being undertaken to satisfy requirements of existing facilities;

- the relocation and upgrading of car parking areas outside the security area and the construction of a security control post are currently being undertaken.

15. Permanent buildings on the site provide 4800 square metres of operational space divided between the following functional areas:

	m^2
Accommodation for equipment	2400
Printers, paper storage, scheduling, despatch	900
Engineering services	1500

16. At present four large and five small systems are housed at the Clayton centre. The systems serve a total network of 950 communication lines.

17. Of significance for the purposes of this report is the large amount of temporary on-site and leased off-site space occupied by administrative and operations staff attached to the centre. Telecom provided the following details of accommodation arrangements for administrative and operations day staff:

	m^2
Permanent on-site space	580
Temporary on-site space	530
Off-site leased space	1690

The temporary on-site space comprises demountable buildings.

18. Future Requirements The Committee was advised that commercial and network strategies will continue to place heavy demand on the capacity and performance of resources management centres. The strategies are aimed at achieving a number of objectives including:

- increased capacity to meet demand for new applications;

- improved resilience of the integrity and survivability of Telecom operations;

- improved performance, i.e., faster response times and increased throughput.

19. Additional or upgraded capacity will be required to improve the resilience of operations and performance. Forecast growth in demand is derived from new applications required to meet new customer and support services to be provided by Telecom. Major applications contributing to high growth include:

- customer accounting and billing system;
- distributed customer record information system;
- finance and accounting management information system;
- local engineering operations processing and analysis of recorded data; and
- records automation for special services.

20. Forecast growth in equipment requirement during the next decade is as follows:

Year	1985	1987	1989	1991	1993	1995
Equipment/Space required (m^2)	2400	3100	3200	3200	3500	3500

21. During the same period the number of systems will decline from five in 1985 to three in 1995; however, the demand in units of power required by the systems will increase dramatically from 29 in 1985 to 318 in 1995. This large increase will require the provision of substantial engineering services such as air conditioning.

22. Summary At present, 4800 square metres of operational space is available at the Clayton facility, of which 2400 square metres is occupied by equipment. Resources management centres are an area of high growth due to extensions in the range of services available to customers and Telecom's operational requirements. Short term bridging accommodation has been provided for administrative and operations staff at the Clayton site and elsewhere to satisfy immediate requirements. Projections indicate a continuing demand for specialised accommodation and support services at the centre to house existing and new systems.

23. Committee's Conclusion There is a need for additional operational and support space to be provided at the Telecom Australia Resources Management Centre, Clayton, to replace existing temporary accommodation and to cater for projected growth.

THE PROPOSAL

24. The proposal is for three new buildings to be constructed at the resources management centre, Clayton. The buildings comprise:

- operations
- support
- engineering services

25. Telecom advised that the new buildings will provide accommodation to meet its growth at the Clayton centre until about 1995.

26. General Design Concept The design concepts for all three buildings reflect the following common characteristics:

- simple elevational treatment, with minimal projections, ledges, openings and windows;

- windows designed to provide maximum sun control, reduce glare to enhance energy conservation;

- external walls constructed of precast concrete panels.

27. Operations Building The operations building will operate 24 hours a day and will house processing equipment. The building will have a gross floor area of 3200 square metres which will provide space for the following:

	m^2
Equipment	1200
Air handling plant, uninterruptible power supply equipment and electrical distribution services	1130
Unloading/uncrating, storage, workshop/test, security control and staff amenities	870

28. The building is planned on two levels with both levels designed to accommodate equipment and associated services. The area of 1200 square metres for equipment will be provided on the first floor. Engineering plant will be located in a plant area on the roof and will service equipment rooms below. The Committee was advised that it is intended to fitout the first floor and part of the ground floor initially and the remainder of ground floor space will be available for future expansion. (Elevations of the Operations building are at pp. C-1 and C-2, Appendix C.)

29. Support Building This will be a three-storey building with a gross floor area of 2600 square metres which will accommodate the following:

- Ground Floor - reference library, training rooms and a canteen/recreation room to accommodate the 120 staff who are expected to be on a meal break at any one time;

- First Floor - office accommodation for support personnel; this will include some discrete and securable offices which are necessary to safeguard proprietary documentation. A conference room, minor equipment room and accommodation for a proportion of administrative staff will be also included;

- Second Floor - this floor will be taken up by operations section day staff which comprises production support, software support, operations planning, network operations and operations monitoring. The balance of administrative staff will also be accommodated on this floor.

30. DHC advised that the building has been planned on a 1200mm grid to facilitate modular partitioning, lighting and a floor penetration system. Additional plant room areas will be provided on the roof. (Elevations and sections of the support building are at pp. C-3 and C-4, Appendix C.)

31. Engineering Services Building This building will have a floor area of 780 square metres and will house engineering services to support the operations and support buildings. Engineering services to be provided include electrical distribution equipment and an emergency power plant which will

service the total resources centre complex including existing facilities. The emergency power plant, store and workshop will be provided at ground level with Local Monitoring and Control Systems Office and staff amenities on a mezzanine level. An additional plant room area will be provided on the roof. (Elevations and sections of the engineering services building are at pp. C-5 and C-6, Appendix C.)

32. Site The site is irregular in shape and has an area of 2.565 hectares. The site is partially occupied by the existing buildings and the Committee was advised that the area available for development is just adequate for the building works proposed. Telecom stated that the construction of the additional accommodation on the same site as the existing facilities will result in significant operational efficiencies.

33. Amenities and Staffing As mentioned above, a canteen/ recreation room will be provided on the ground floor of the support building. The canteen has been designed to meet the maximum number of staff on the site. Telecom advised that the total number of persons to be employed on the site, including shift staff, will be 240 in 1990. The maximum number of staff on a meal break at any one time is estimated to be 120 persons. The Committee was assured that the design of staff amenities is in accordance with local government requirements and Telecom's guidelines for the 'Provision of amenities in Telecom Australia buildings' which are endorsed by all relevant staff associations.

34. Facilities for the Disabled All levels of the operations building and the support building will be accessible to disabled persons. Facilities will be provided in the support building in accordance with Australian Standard AS1428 - 'Design Rules for Access by the Disabled'.

35. Car Parking Parking will be available for about 100 vehicles for staff and visitors at the front of the building. Telecom assured the Committee that in order to comply with State and local government requirements it is planned to provide a further 100 parking spaces on a nearby site before the total complex is fully operational. The Committee wishes to be assured by Telecom that this planning will result in the timely provision of sufficient car parking spaces for staff and visitors.

36. Committee's Conclusion The extent of the proposed work is justified and will satisfy Telecom Australia's operational and support space requirements until 1995. The number of parking spaces to be provided when the new buildings are completed should comply with local government and staff requirements.

ENVIRONMENTAL CONSIDERATIONS

37. Telecom stated that a Notice of Intent was forwarded to the Department of Arts, Heritage and Environment, which advised that there is no objection from an environmental viewpoint to the proposal and that an Environmental Impact Statement is not required. The Australian Heritage Commission advised Telecom that no place of national estate significance is likely to be affected by the proposal.

CONSULTATIONS

38. Telecom assured the Committee that the proposal has been discussed with relevant staff associations in accordance with Telecom Consultative Council agreements and the Associations' reactions have been favourable. Telecom will hold further consultations with Associations during the development of the final fitting out of the various areas.

39. The proposal was referred to the Council of the City of Oakleigh, the Melbourne and Metropolitan Board of Works and the Victorian Ministry of Planning and Environment. The Committee was assured by Telecom that no objections to the proposal have been received from these authorities.

40. Adjoining property owners have been advised of the nature and scope of the proposed building works.

COSTS AND TIMETABLE

41. The Limit of Cost estimate for the proposal is $18.3 million at July 1985 prices. Telecom carried out an economic study which confirmed that construction of the new buildings is economically more attractive than the costs of leasing similar accommodation.

42. It is proposed to invite tenders as soon as approval is given with a view to completion of construction to enable the installation of equipment by the third quarter of 1987.

43. Committee's Recommendation The Committee recommends construction of the work in this reference.

RECOMMENDATIONS AND CONCLUSIONS

44. The recommendations and conclusions of the Committee and the paragraph in the report to which each refers are set out below:

		Paragraph
1.	THERE IS A NEED FOR ADDITIONAL OPERATIONAL AND SUPPORT SPACE TO BE PROVIDED AT THE TELECOM AUSTRALIA RESOURCES MANAGEMENT CENTRE, CLAYTON, TO REPLACE EXISTING TEMPORARY ACCOMMODATION AND TO CATER FOR PROJECTED GROWTH.	23
2.	THE EXTENT OF THE PROPOSED WORK IS JUSTIFIED AND WILL SATISFY TELECOM AUSTRALIA'S OPERATIONAL AND SUPPORT SPACE REQUIREMENTS UNTIL 1995. THE NUMBER OF PARKING SPACES TO BE PROVIDED WHEN THE NEW BUILDINGS ARE COMPLETED SHOULD COMPLY WITH LOCAL GOVERNMENT AND STAFF REQUIREMENTS.	36
3.	THE LIMIT OF COST ESTIMATE FOR THE PROPOSAL IS $18.3 MILLION AT JULY 1985 PRICES.	41
4.	THE COMMITTEE RECOMMENDS CONSTRUCTION OF THE WORK IN THIS REFERENCE.	43

D.J. Foreman

(D.J. FOREMAN)
Chairman

Parliamentary Standing Committee
on Public Works
Parliament House
CANBERRA

21 November 1985

APPENDIX A

LIST OF WITNESSES

Bickerstaff, Mr I.S., Associate Director (Projects), Department of Housing and Construction, 239 Bourke Street, Melbourne, Victoria

Conlin, Mr R.J., Manager, Planning and Projects Branch, Buildings Division, Telecom Headquarters, 172 William Street, Melbourne, Victoria

Hughes, Mr K.R., Design Project Leader, Department of Housing and Construction, 239 Bourke Street, Melbourne, Victoria

Read, Mr D.J., Acting General Manager, Information Systems Department, Telecom Headquarters, 199 William Street, Melbourne, Victoria

Robinson, Mr P.J., Project Manager (Telecom Postal), Department of Housing and Construction, 239 Bourke Street, Melbourne, Victoria

APPENDIX B

CONSTRUCTION DETAILS

1. Structure The substructure of the buildings will be either shallow concrete pad or strip footings. The superstructures will be of reinforced concrete columns and floor systems as follows:

- Operations building - post-tensioned beam and slab;
- Support building - reinforced concrete one-way ribbed slab;
- Engineering services building - composite reinforced concrete one-way ribbed slab;
- Engineering services building - composite reinforced concrete and steel construction.

2. External Finishes Roofs will be steel decking on purlins fixed to a reinforced concrete slab which acts as a security barrier.

3. Windows will be anodised aluminium framed with laminated security glass to all windows within 5.5 metres of ground level. Louvres will be anodised aluminium with security mesh backing.

4. All plant and equipment on roofs will be enclosed with security mesh.

5. External walls will be a combination of precast concrete panels and in situ concrete.

6. Internal Finishes Internal walls generally will be metal stud and plasterboard with a paint finish. Masonry walls will be provided in heavy use areas and in areas requiring a fire rating in excess of one hour and will be painted.

7. Ceilings to office areas, amenities and corridors will generally be suspended acoustic tile or plasterboard. In equipment and plant rooms ceilings will be off-form concrete with a paint finish.

8. Acoustic treatment will be provided to the walls and ceilings of the room housing the emergency power plant located in the engineering services building.

9. Floors in the equipment room and surrounding equipment corridors will be laminate finished raised access flooring.

10. In the support building, offices, amenities areas and lobbies will have carpeted floors. The operations and engineering services building will have vinyl floors. Wet areas will have ceramic tiles. Plant rooms and other heavy wear areas will have concrete floors with applied finishes and vinyl floors to selected areas.

11. Mechanical Services These will comprise air conditioning, mechanical ventilation and exhaust systems, domestic hot water and other services.

12. Mechanical ventilation will be provided for the emergency power plant room, the interruptible power supply and transformer rooms, battery rooms, kitchenette, toilets and cleaners' rooms. Full air conditioning will be provided to all other areas.

13. The equipment area in the operations building will be independently air conditioned by direct expansion package units located in two service corridors adjacent to the equipment area. Heating and air conditioning in the support and engineering services buildings will be provided by heat pumps.

14. Electrical Services The power supply currently being upgraded for existing facilities will be extended to meet the additional load of the new proposal. Power reticulation will be designed to provide a high reliability of power for processing and associated equipment. This will be achieved by duplication of switch gear, cabling and transformers combined with automatic change-over. The reticulation system will also include an uninterruptible power supply system.

15. General light and power will be provided throughout the buildings. Lighting will be fluorescent type in the operations and support buildings and in external areas. Lighting in the support building will be designed to take account of the extensive application of visual display units in the building.

16. Emergency power to the site will be provided by two 2.65 MW diesel generator sets located in the engineering services building. These sets will generate at 11kV and feed via transformers directly into the site 22kV distribution system. Full standby power will be provided in accordance with Telecom policy for resources management centres.

17. Fire Protection The buildings will be protected throughout by automatic sprinkler systems, hydrants, hose reels and portable extinguishers.

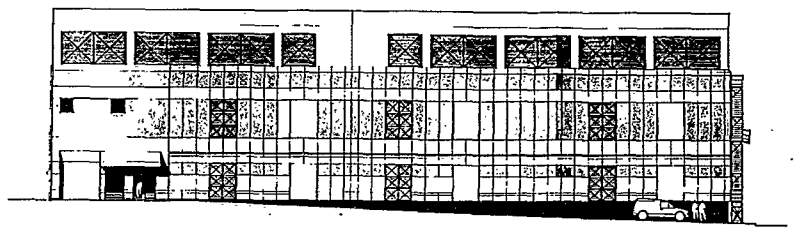
18. A gas flooding system will also protect the equipment room, the uninterruptible power supply and the local monitoring and control systems.

19. Emergency lighting, warning and evacuation systems will be provided in all buildings in general accordance with relevant Australian Standards.

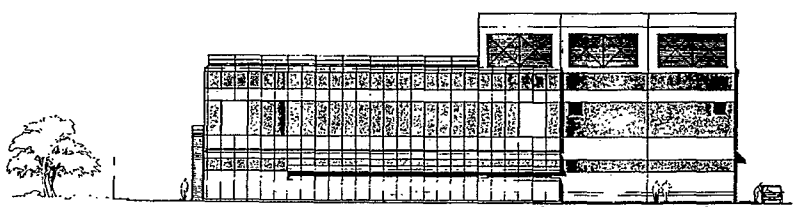
20. Security For security reasons a concrete slab will be part of the roof structure for each building. Mechanical plant located on roofs will be enclosed by solid walls or security mesh. The site will be monitored with closed circuit television cameras. Entry to buildings will be by card key. External security lighting will also be installed. The security systems will be integrated with the current upgrading of site security in and around existing buildings.

21. Lifts A lift of 16-person capacity will be provided in the support building. The operations building will have a goods/passenger lift sized to take equipment and engineering plant.

22. Hydraulics External water supply and fire services are currently being upgraded. The new buildings will be connected to the upgraded external services. Adequate sewerage and drainage facilities are available to the site.

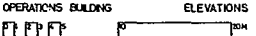


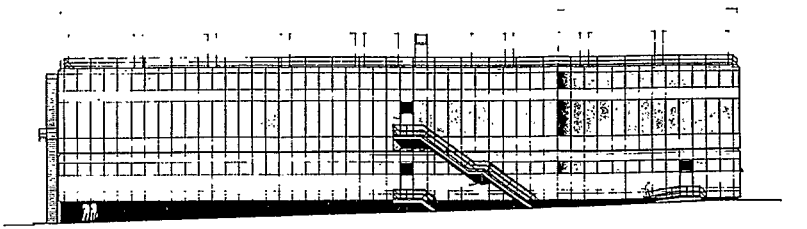
WEST



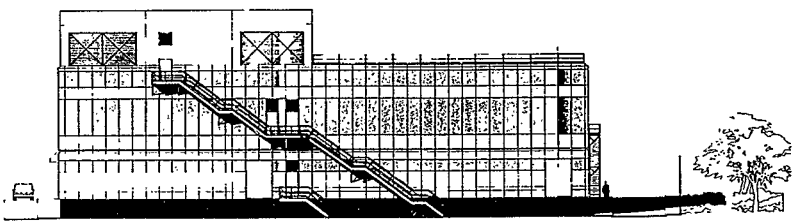
NORTH

OPERATIONS BUILDING ELEVATIONS

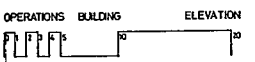


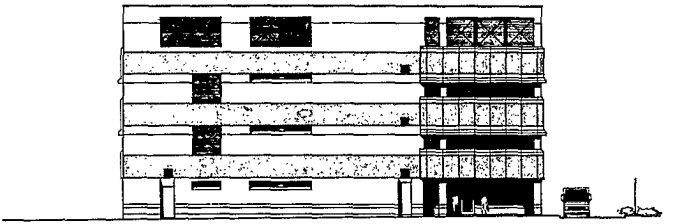


EAST

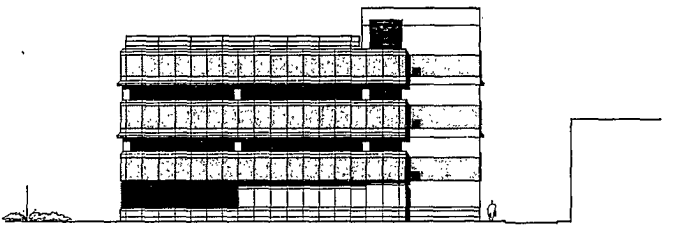


SOUTH



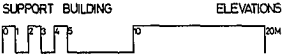


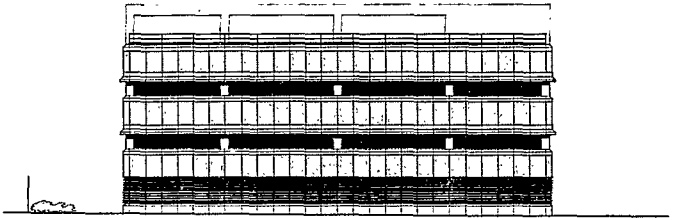
EAST



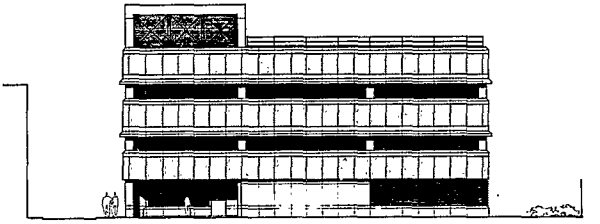
SOUTH

SUPPORT BUILDING ELEVATIONS

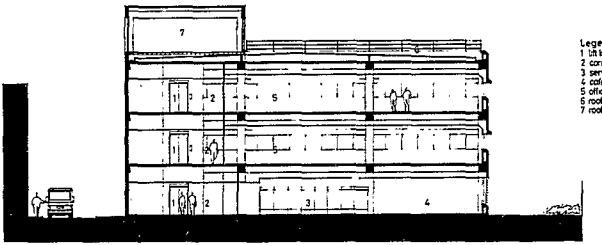




WEST ELEVATION

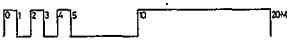


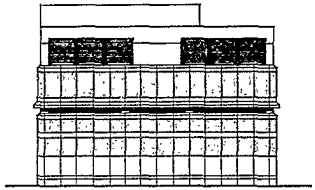
NORTH ELEVATION



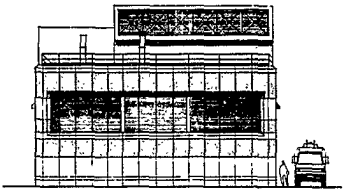
EAST-WEST SECTION

SUPPORT BUILDING ELEVATIONS & SECTION

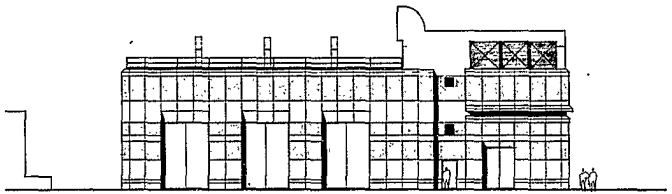




NORTH

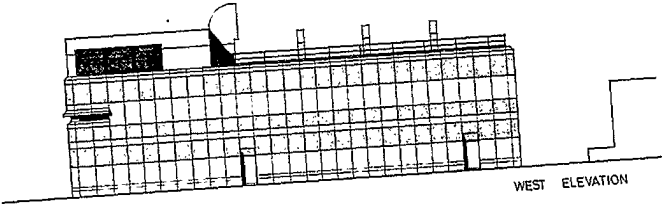


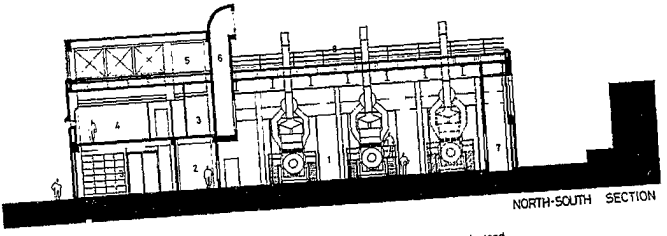
SOUTH



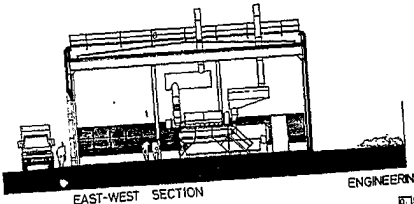
EAST

ENGINEERING SERVICES BUILDING ELEVATIONS





Legend
1 emergency power plant
2 control room
3 stores
4 staff amenities
5 plant area
6 exhaust air shaft
7 supply air shaft
8 roof area



ENGINEERING SERVICES BUILDING ELEVATION & SECTIONS