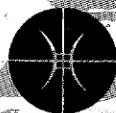
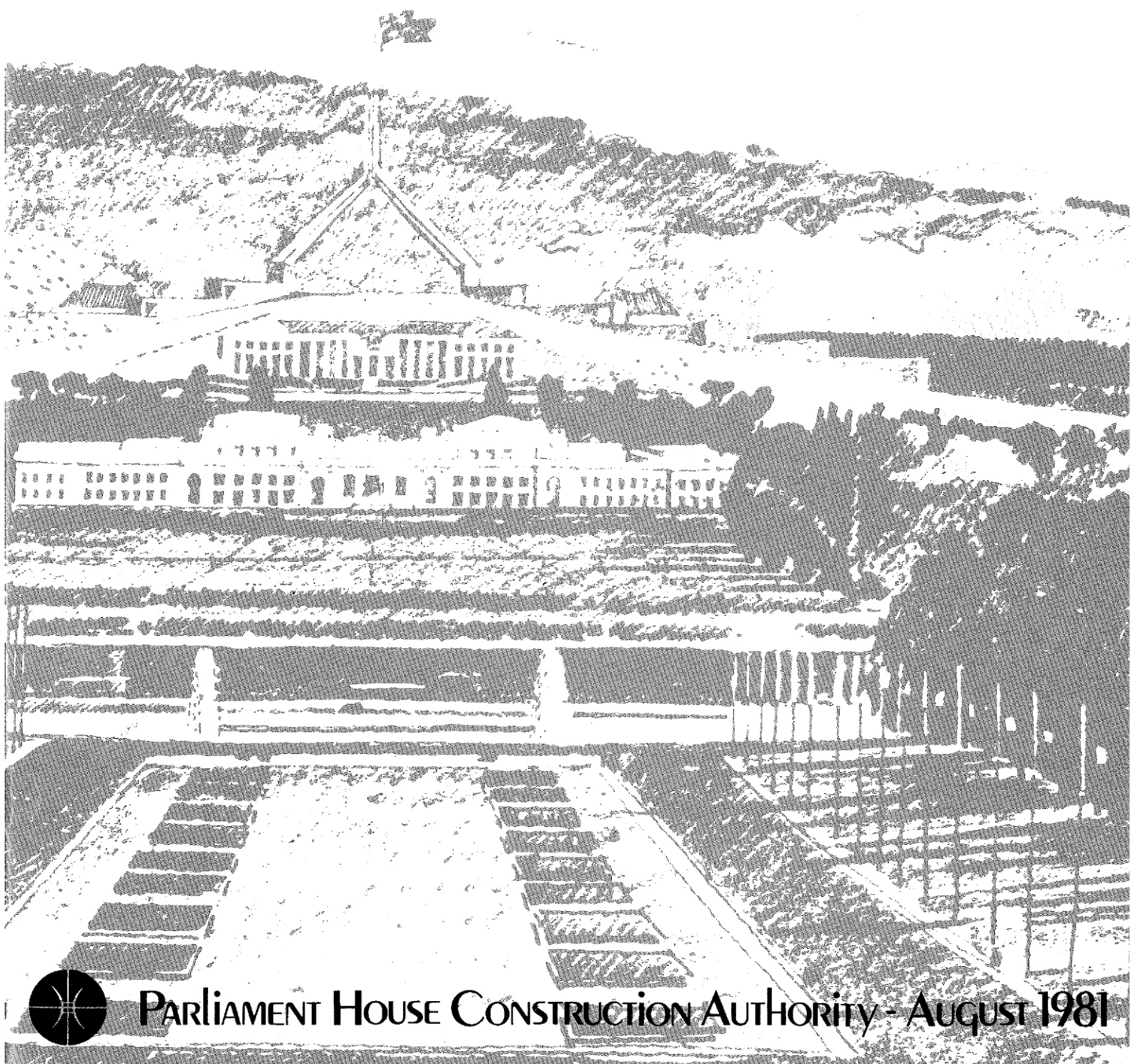


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Australia's New Parliament House

The Schematic Design Report



PARLIAMENT HOUSE CONSTRUCTION AUTHORITY - AUGUST 1981

COMMONWEALTH
PARLIAMENTARY
LIBRARY

CANBERRA



Foreword

The provisional Parliament House was designed in the twenties as a temporary structure to meet the needs of Federal Parliamentarians for fifty years. The design and construction of a permanent building was left as a challenge for posterity.

Parliament decided in 1979, to accept posterity's challenge and build a new Parliament House to serve Australia in the 21st Century and beyond. An initial target date of 1988 was set, to coincide with the Bi-Centennial celebrations. The task of executing this complex project was given to the Parliament House Construction Authority, of which I am proud to be the Chairman. The Authority was specially formed for this one task and has assembled a highly skilled team to carry out Parliament's commission.

To find an architect, we conducted a design competition which resulted in the selection of the winning architectural firm of Mitchell, Giurgola and Thorp. Their concept was so innovative, practical and appealing that it has met with almost universal acclaim since it was unveiled in June 1980.

In the year since then, a great deal of effort has been spent in refining the design concept, in consultation with the users of the future building. This has culminated in this Schematic Design which we are confident has reached the stage where it can be presented to Parliament as the basis for approval to proceed with the construction of the new building.

Throughout the review and development of the Schematic Design, the Authority and its consultants have closely monitored costs so that the budget approved by Parliament can be maintained. The Authority has continually injected into the design process advice on the most economical construction techniques.

It is my hope that this report on the Schematic Design and a separate one by the Joint Standing Committee will result in Parliament agreeing to the Authority proceeding immediately with the construction of this exciting and much needed building.



A handwritten signature in black ink, which appears to read "Bernard Callinan". The signature is fluid and cursive, with a long horizontal stroke at the end.

**Sir Bernard Callinan,
Chairman.**

The Nation's Capital

Relationship to the City

Capital Hill is the focal point of the city, not so much because of its size or visibility, but because of its position within the overall plan of Canberra.

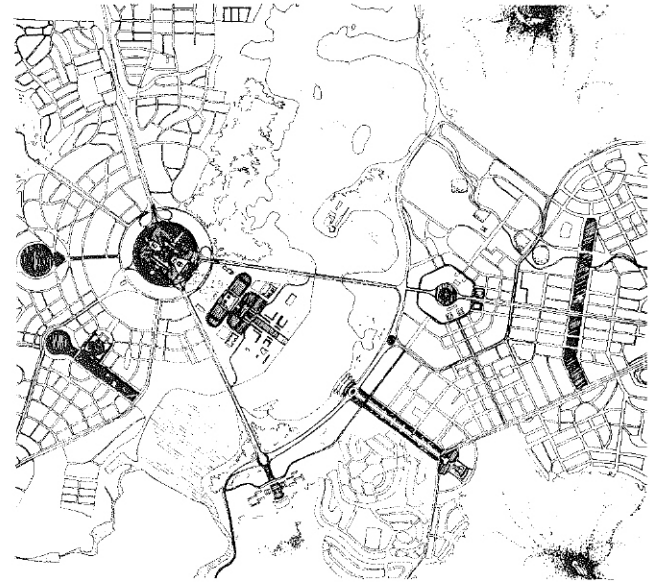
When Walter Burley-Griffin planned the city in 1911 he located the central area around three small hills, Capital Hill, City Hill and Mount Pleasant. Joining these hills with roads, he formed a triangular shaped area known as the Parliamentary Triangle.

Lake Burley-Griffin cuts through this area and forms the base of a smaller triangle known as the Parliamentary Zone. Capital Hill is the apex of both of these triangles.

Within this area lie the major national buildings of the National Capital, such as the National Gallery, High Court and National Library.

The site

Capital Hill is not, as may first appear, an isolated knoll but is part of a spur running from Red Hill through to Camp Hill at the rear of the provisional Parliament House. The circular roads around Capital Hill give it a conical appearance and this effect is strengthened by the relatively dense tree cover around the hill.



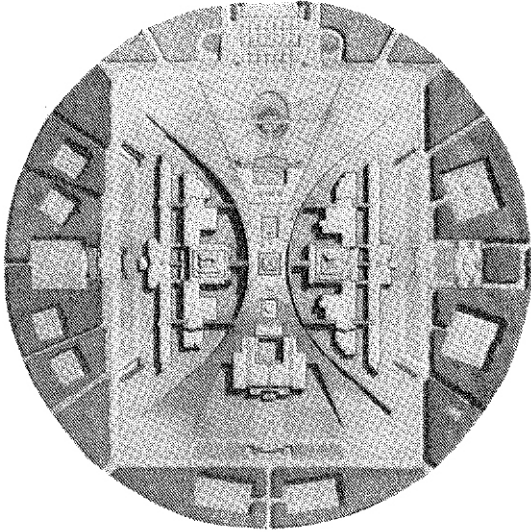
Although the summit of the hill extended thirty metres above Capital Circle the site had no particularly steep grades.

When seen from north of the Lake, Capital Hill does not register strongly as it is seen against the background of Red Hill. Only from closer quarters, from the east and from some of the avenues, can Capital Hill be seen clearly in silhouette.

The circular nature of the hill is a direct result of Burley-Griffin's intention to make Capital Hill the symbolic centre of Australia. The roads around the hill represent various levels of Government and he called them, Capital Circle, State Circle, National Circuit, Dominion Circuit and Empire Circuit.



The view towards the site seen from Commonwealth Avenue before the project started.



city of parks, hills and tree lined streets. All Australians have therefore inherited a city which is vibrant and exciting whilst avoiding many of the problems which have beset other artificially created capitals.

Like Griffin's plan for Canberra, the winners design represents a clear physical form. The design is not a monumental structure superimposed on the hill but rather it derives its prominence and character by merging built form with the land form. While it is a large building complex, the design is similar in spirit to the Greek Acropolis where there is a continuity linking the smallest element of the architecture to the massive form of the building itself, all of which is in harmony with the total environment.

The profile of the whole complex has been designed so that it completes the geometry of the triangle. Rather than imposing a building on the hill physically terminating the land axis, the design allows the vista to extend through the building to the areas beyond. The transparent mast structure supporting the flag provides a focal point for the building, while the glassed roofs on the two Chambers clearly express the bi-cameral system of government.

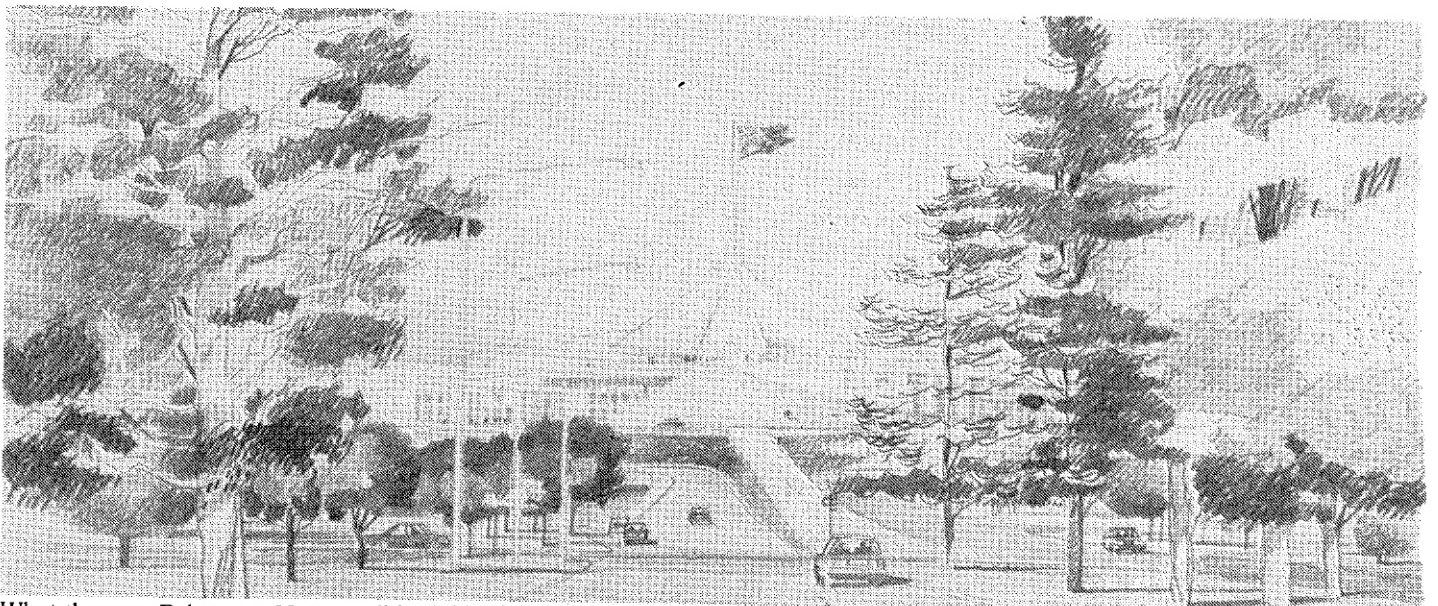
The simplicity and elegance of the basic lines of the design conceals at first glance what is revealed by closer examination to be a collection of separate building pieces. This separation provides easy identification and understanding of the main building elements.

Radiating from the hill are a series of major avenues of which the primary ones, Commonwealth and Kings Avenues, form the sides of the Parliamentary Triangle. The remainder point towards the capital cities from which they take their names.

The new Parliament House design had to take into account these natural and man made elements in a way which would not merely reinforce the apex of the hill but which would also respond sensitively and imaginatively to Walter Burley-Griffin's overall plan for central Canberra.

The building and its setting

Burley-Griffin envisaged and designed a city which would draw its grace and character from its natural surroundings. Canberra was to be a



What the new Parliament House will look like from Commonwealth Avenue.

The New Building

Main functional elements

The building can be divided into four main elements: the ceremonial and public areas to the north; the Senate to the west; the House of Representatives to the east; and Executive Government to the south.

The Senate wing contains Senators' suites close to the Senate Chamber and also provides accommodation for the Senate Department. Although the east and west elements of the building are much the same size, the smaller number of Senators enables this wing to also accommodate the Media on the top floor and the Hansard and Joint House Departments on the lower levels.

The House of Representatives wing contains the Chamber, suites for Members of the House of Representatives and support staff from the House Department. In the south of the House of Representatives wing is the Opposition

Executive which is a series of suites set aside for the Shadow Ministry.

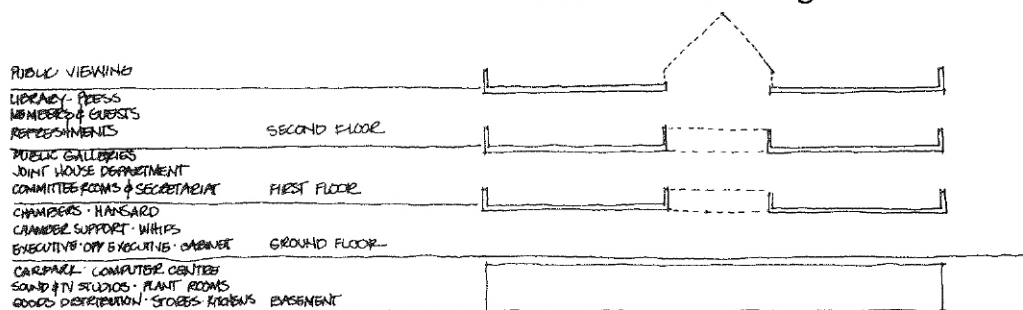
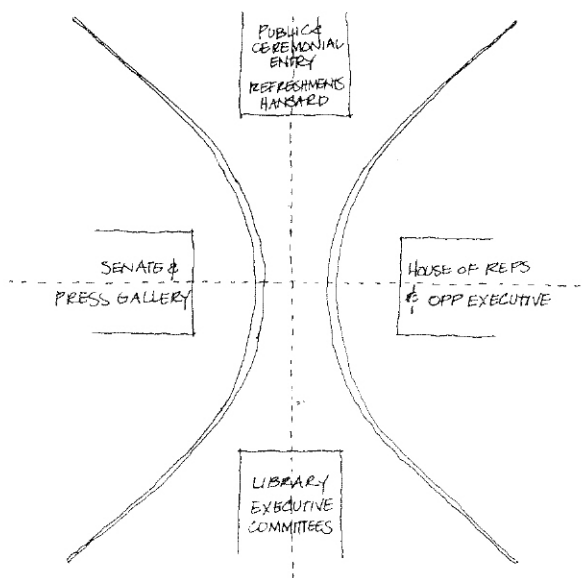
The Executive wing provides self contained accommodation for the Cabinet and Ministry on the ground and first floor levels, with the main library facilities on the second floor. The Committee areas are on the first and second floors near the Members Hall.

Movement within the building

There are three primary circulation systems within the building. These are the public circulation which serves the open access areas; general circulation which serves restricted areas of the Senate and House of Representatives; and the Executive circulation which serves the higher security area in the Executive wing.

Public circulation includes the main entrance area and the Foyer on the ground floor, as well as the refreshment, exhibition and public areas on the first floor. It is on this level that the visitor can watch debate in either of the two Chambers or attend a committee meeting. Access is also provided to the public terrace overlooking the Grand Verandah and the land axis.

The general circulation system has three main entry points, they are the Foyer, the Senate entry and the House of Representatives entry. Control points are located at each entry way and at intersections between the general circulation and the public circulation. This is the main working circulation pattern and it provides access from Members and Senators suites to all of the working and refreshment areas of the building.



The Executive wing also has its own security points but once inside this area, free access is possible to Ministers' suites and the Cabinet area. A VIP entry has been designed with access through a courtyard in the centre of the Executive wing.

Despite the overall size of the building, travel time to the Chambers from any Senator or Member's office is less than two minutes at a normal walking pace.

Schematic Design

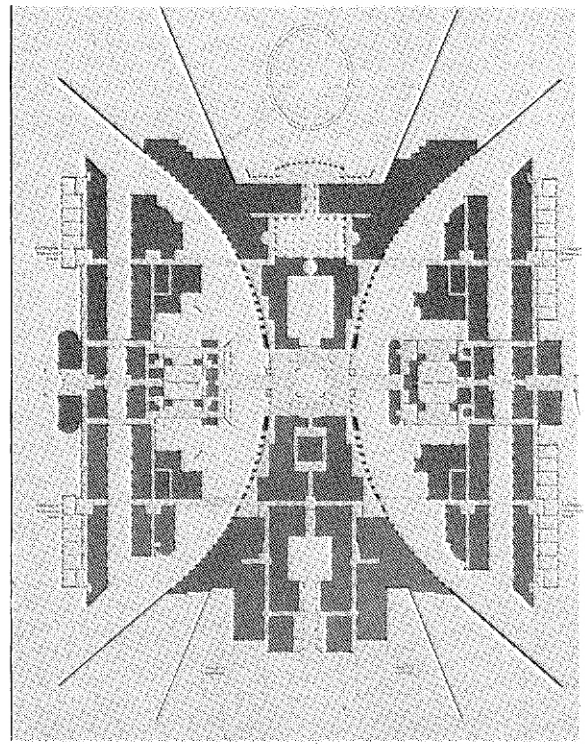
Since Parliament approved the winning entry in August 1980, the design concept has been refined in consultation with all users of the building. It is a mark of the skill and forethought of the Architects, that their design concept has stood up to this rigorous examination and only required relatively minor modifications to produce a design which will satisfy the accommodation requirements of Parliament for the foreseeable future.

Most of the design changes are in response to new planning and circulation requirements and the demands for better distribution of services. The conceptual form remains intact in its symbolic and architectural aspects.

The whole building complex has been raised by an average of two metres to reduce the amount of excavation required. The overall profile of the building, however, has been maintained by lowering the upper floor levels by a total of two metres. This not only produces considerable economic advantages but also improves the general proportions of the complex and its relationship to the landscaped area.

The design of the two curved walls has been better defined by eliminating the glass curtain walls which were originally placed alongside them. It is now proposed that the walls will be clad in granite, creating a degree of contrast with the precast concrete panels on the other parts of the structure.

The profile of the Executive area has been changed by moving this wing closer to the main building, providing a much better balance in overall building terms. The general reorganisation of the area which resulted from this decision produced improvements in the



accommodation for the main Library and committee rooms and in addition provided a more direct route from the Executive wing to the Chambers.

Rationalisation of the basement areas has provided better allocation of space for mechanical plant and services, the delivery and distribution of goods, and kitchen and storage facilities.

All underground parking areas and the initial goods delivery points have been relocated outside the building perimeter. This has permitted more effective security control for goods entering the building which will now be screened in the unloading dock and brought via a tunnel into the basement.

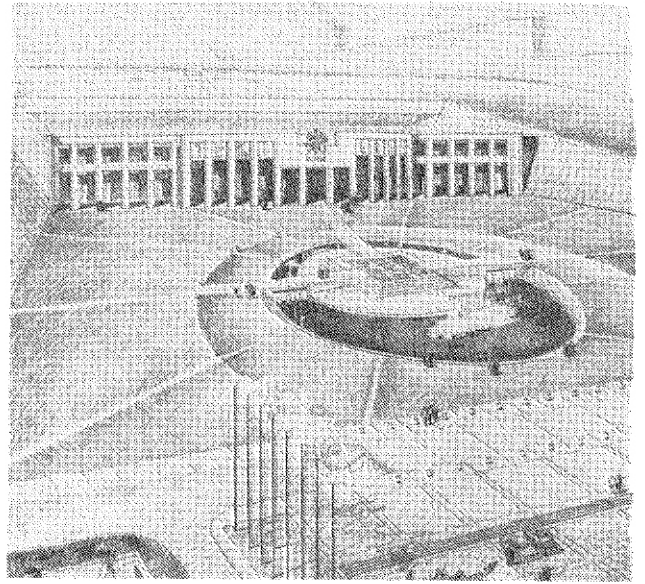
The Hansard area, originally located in the north west portion of the central zone, was interchanged with the recreation area previously located in the north of the Senate office wing. This reorganisation has provided additional natural light to the Hansard area and has also reinforced the overall planning principle that the central zone should accommodate common facilities.

More adequate public accommodation has been created in the central zone with a better location of the post office and refreshment areas. Staff lounges and dining rooms have also been greatly improved.

A Walk Through Parliament

The Grand Verandah

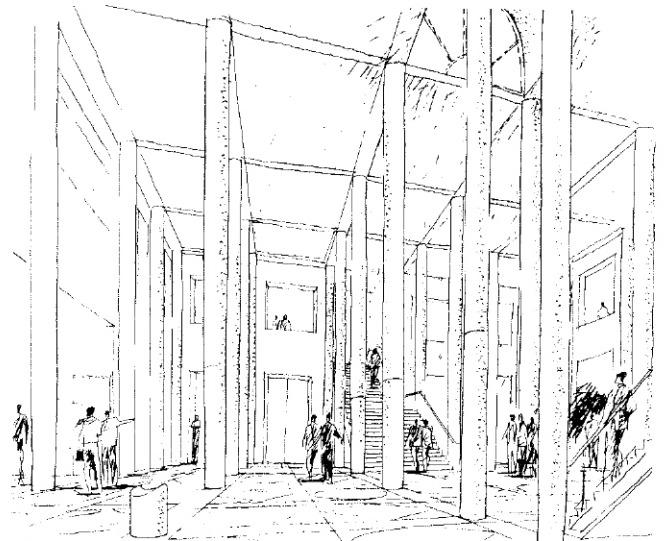
The ceremonial, formal and visitor approach to the building is from the north, across the Forecourt. The main entrance reflects the style of the provisional Parliament House and serves as a gathering place, partly sheltered, for visitors about to enter the building itself. Known as the "Grand Verandah" its upper walls contain a sculptural frieze in stone depicting Australia and her people.



The Forecourt and Grand Verandah.

The Foyer

Once inside the building the visitor enters a high ceilinged Foyer with tall graceful marble columns and filtered light from the glazed areas in the roof. To either side are stairs and lifts which provide access to the major public areas on the first floor and behind these are a number of more private entrances to the office and other working zones of the building.

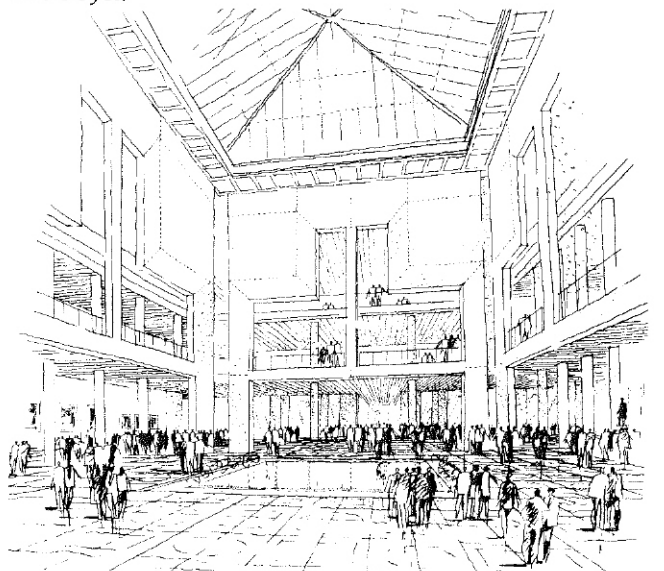


The Foyer.

The Reception Hall

Directly in front of the visitor in the Foyer is the Reception Hall which, despite its deep position within the building, receives natural light from a partially glazed roof. This large and impressive area, which will be the venue for many formal occasions of state, retains a scale which will welcome visitors without overpowering them.

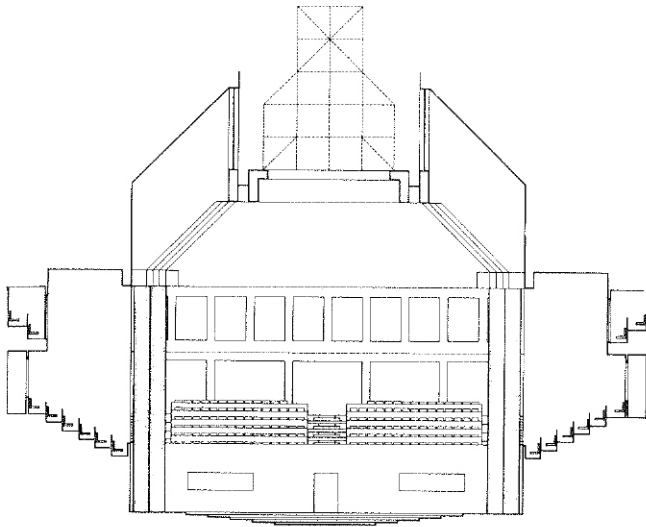
Tapestries and wall hangings will be placed on the timber panelling between the columns surrounding the main Reception Hall area.



The Reception Hall.

The Members' Hall

Further into the building is the Members Hall. This is the very centre of the complex and is in all respects the hub of Parliament House being the intersection of the north-south axis and the east-west axis. At ground floor level, this space is devoted to Senators and Members of



House of Representatives Chamber.

Parliament only, but has open galleries at the first and second floor levels. From the ground floor Members of Parliament will have direct access to either the Senate or House of Representatives Chambers.

Public galleries

The public areas of the building are located primarily on the first floor where virtually the whole of the central zone up to and including the gallery around the Members Hall is open to the visitor. Access is provided off this area to the public galleries of the Senate and House of Representatives Chambers, from where a visitor can watch Parliament in session. At the northern end of the first floor are public exhibition areas, a theatrette, cafeteria and a viewing terrace.

Recreational facilities

With a greater concern for health and a general awareness of the need for exercise, a gymnasium, squash courts and enclosed pool have been provided. There are also tennis courts and a bowling green where members and staff can relax during a break from the daily routine of Parliamentary life.

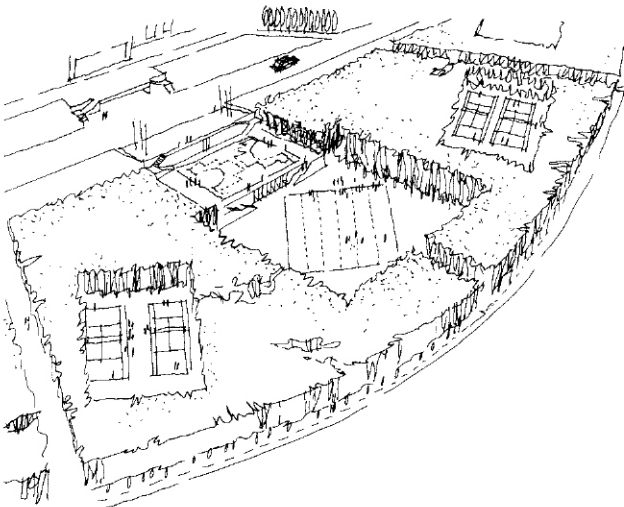
During the next phase of design the Architect will be looking at ways of reorganising the recreational areas so that some are moved to the Eastern side.

The Cafeteria and Terrace

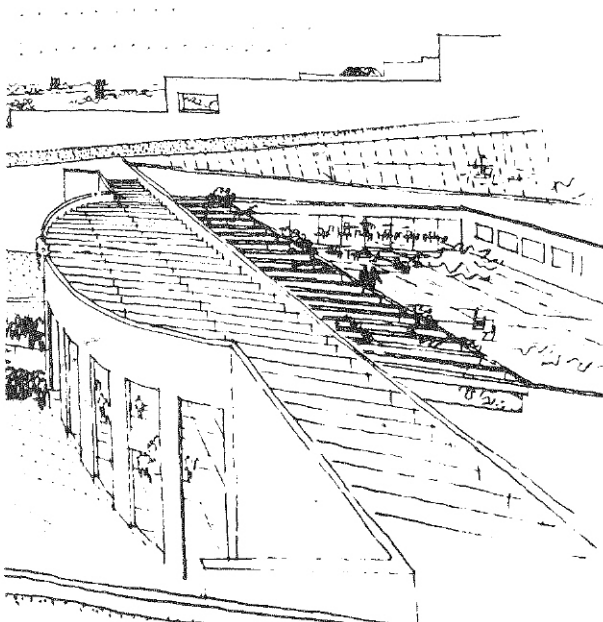
On the second floor at the northern end of the central zone, are dining rooms and other refreshment areas for Members of Parliament and their guests. These provide magnificent views of the Lake, the Parliamentary Triangle and the whole Molonglo Valley.

Other facilities

The Parliament House will be far more than just a building with two Chambers and offices for Members. It will be a work place for over 2,000 people and as such will contain a post office, banking facilities and other services for the use of members, staff and visitors to the building.



The tennis courts and bowling greens.



The Public Terrace.

The Basement

The building concept adopted by the Architects calls for a low structure which is integrated with the landscape. This philosophy precludes the normal building practice of placing air conditioning and other plant on the roof, instead it is placed in the basement levels of the new building.

The plant rooms

Plant rooms, (*sand*) are located throughout the basement area to minimise ducting and to optimise ventilation, heating and cooling services. There is a "crawl space" under most accommodation areas to provide ease of maintenance and to allow new equipment and systems to be installed with minimum disruption.

Parking areas

To avoid large expanses of parking ruining the aesthetics of the site, underground parking areas have been provided. (*Grey/green*). The main underground parking for visitors and tourists is the large car park under the Forecourt area. Priority parking spaces for Senators and Members are on the west and east sides of the building respectively, with a priority car park for Ministers and their staff at the south of the building.

Delivery facilities

A large underground loading/unloading area on the House of Representatives side of the building has been provided to cater for all deliveries including refrigerated and perishable food stuffs, heavy equipment, postal deliveries and courier services. Supplies will be offloaded from the vehicles, screened and transported to the storage/sorting areas within the building and then placed on the internal delivery system to be taken to their ultimate destination. Access to the unloading dock will be from State Circle

and this will avoid delivery vehicles mixing with general traffic.

All underground parking and loading/unloading facilities are located outside the perimeter of the building. During periods of high security risk, VIP access to the building can be from the underground parking areas, but normally Senators, Members and Ministers would alight from their cars at the ground level entrances.

Communications

The telephone exchange, broadcasting rooms, computer facilities and building management control systems, (*Sand*) are also located in the basement to allow the maximum use of the upper floors for offices and other useable accommodation.

The kitchens

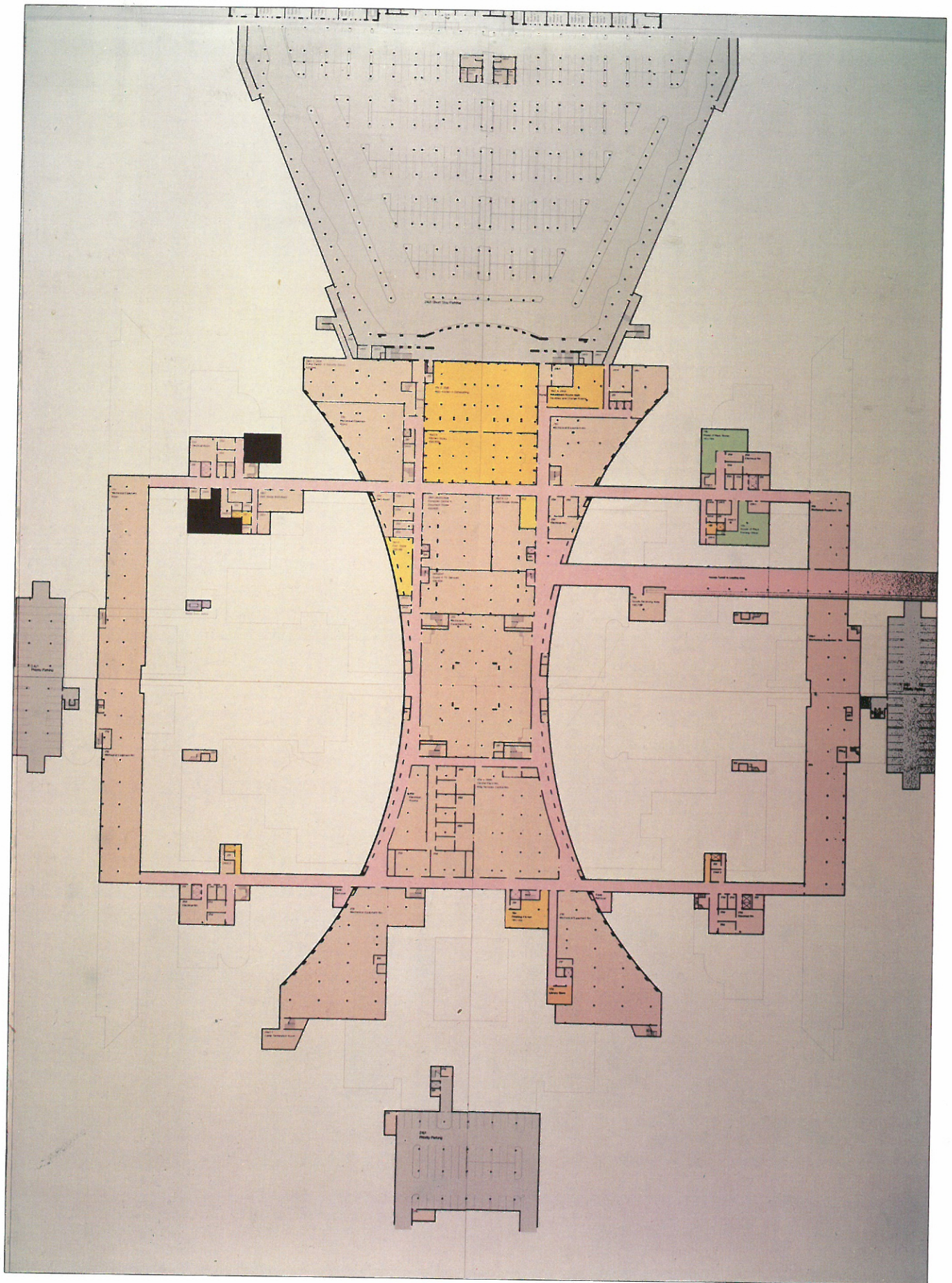
The kitchen areas at the northern end of the basement (*Yellow*) can cater for the peak demands which inevitably occur from time to time. All main food preparation areas on the upper floors are located to correspond with the kitchens below and are serviced by way of food lifts.

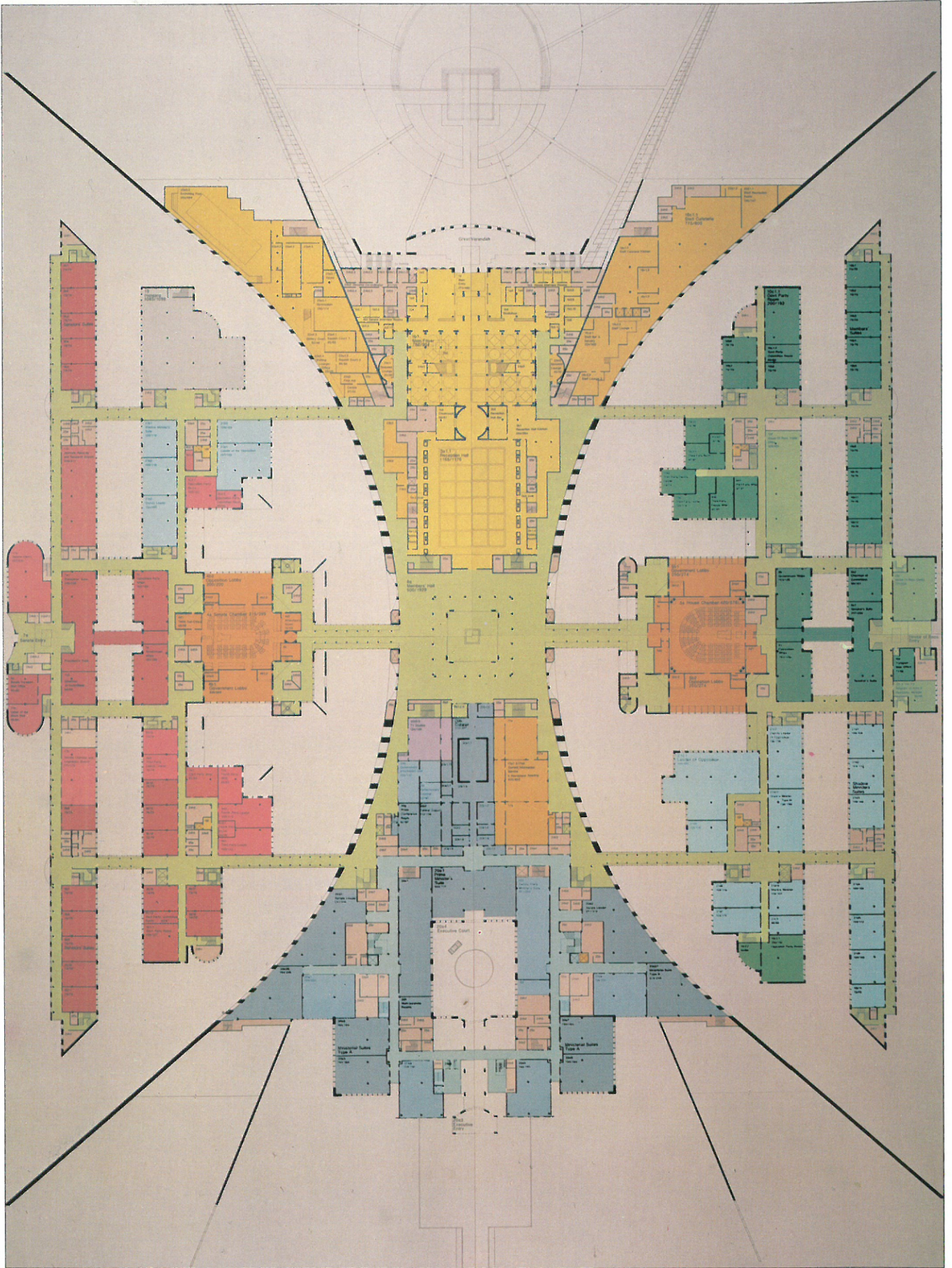
Storage facilities

Storage facilities for the Senate (*Pink*), House of Representatives (*Pale green*) and the Joint House Department (*Yellow*) have been provided in the basement area, and these can service the upper floors by way of passenger and goods lifts.

Future requirements

Future technology can be expected to advance far beyond our current standards and considerable effort has been made to provide overall flexibility within the whole structure and to provide adequate space in the plant rooms to accommodate the unforeseeable equipment changes.





The Ground Floor

This floor level is set aside primarily for Members of Parliament, their staff and the staff of the Parliamentary Departments. It does, however, include the main entry from the Forecourt, the Foyer and the Reception Hall complex. (*Yellow*).

The general circulation (*Pale green*) provides access to Senators and Members suites. (*Dark red and dark green respectively*). Suites for the Presiding Officers, Whips and Minor Party Leaders are also located on this level and provide quick and convenient access to each of the Chambers.

The Chambers

The Chambers themselves are on the main east-west axis of the building. Primary and ceremonial access to the Chambers is from the Members Hall while secondary access is provided via the Government and Opposition Lobbies placed on either side of each Chamber.

The support staff

The support areas accommodating staff involved directly in the processes of the Chamber are on the Senate side (*Pink*) and on the House of Representatives side (*Light green*).

The Executive wing

At the bottom of the plan is the Executive wing. (*Dark blue*). Cabinet and its support facilities, and Ministers and their staff are accommodated on two levels and have access to an internal high security circulation. (*Pale blue*). Ministers have quick access from their suites to their respective Chambers and Cabinet has a direct access to the Members Hall.

The Opposition Executive

The areas to the lower right and upper left of the plan (*Light blue*) are allocated to the

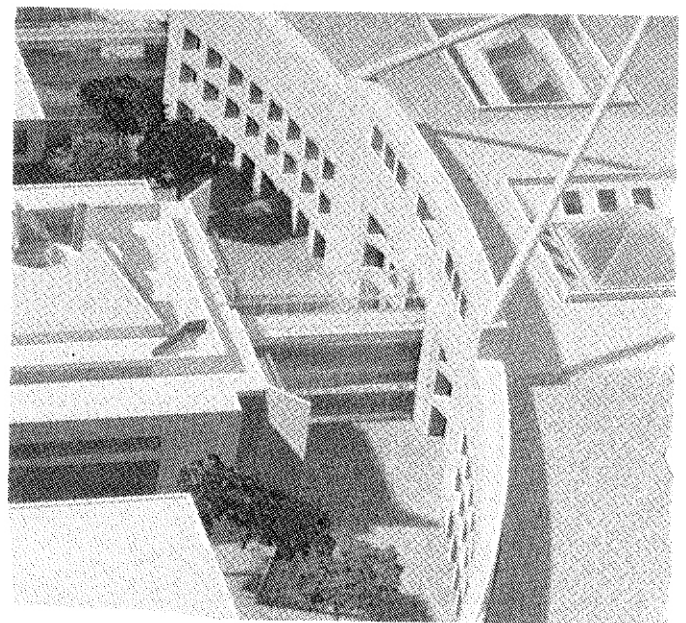
Opposition Executive. This area provides Members of the Opposition with similar facilities to those found in the Executive area.

The Library

The current information service and newspaper reading room of the Library is located close to the Members Hall to provide Senators and Members with quick information on a wide range of topics. Also close to the Members Hall is the TV interview room. (*Pale mauve*). The large areas to the north east of the building (*Dark yellow*) are the staff amenities and refreshment rooms.

The external areas

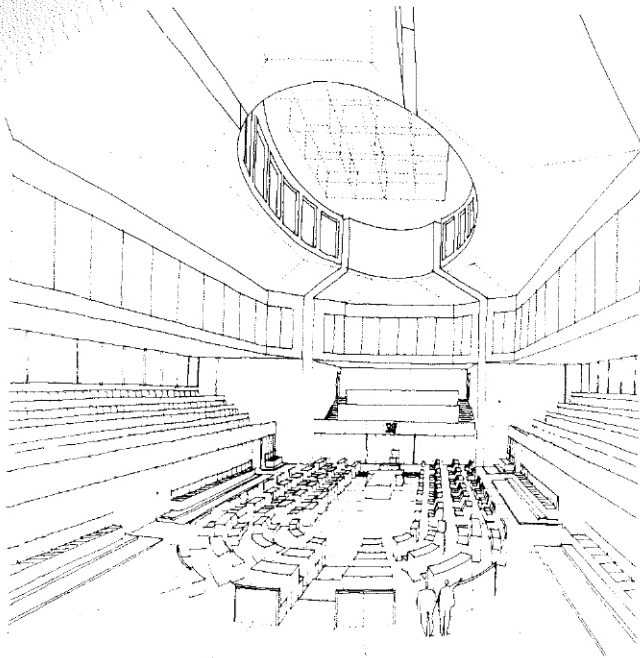
The House and Senate courtyard areas admit light to the inner sections of the building and serve as extensions of the interior space. Landscaping, ponds, fountains and outdoor sculptures will add interest to the courtyards.



Recreational facilities

Various amenities such as tennis courts, bowling greens and formal gardens are located within the landscape on the periphery of the site and these will provide privacy and a more relaxed atmosphere, in contrast with the more formal gardens close to the Parliament House building.

The Chambers



Senate Chamber

Initially the Senate Chamber will provide seating for 90 Senators, and by arranging additional seating around the perimeter of the Chamber the capacity can be increased to 120 Senators without any structural change. It will also be possible to seat a total of 360 Senators and Members on the occasion of a formal opening of the Parliament.

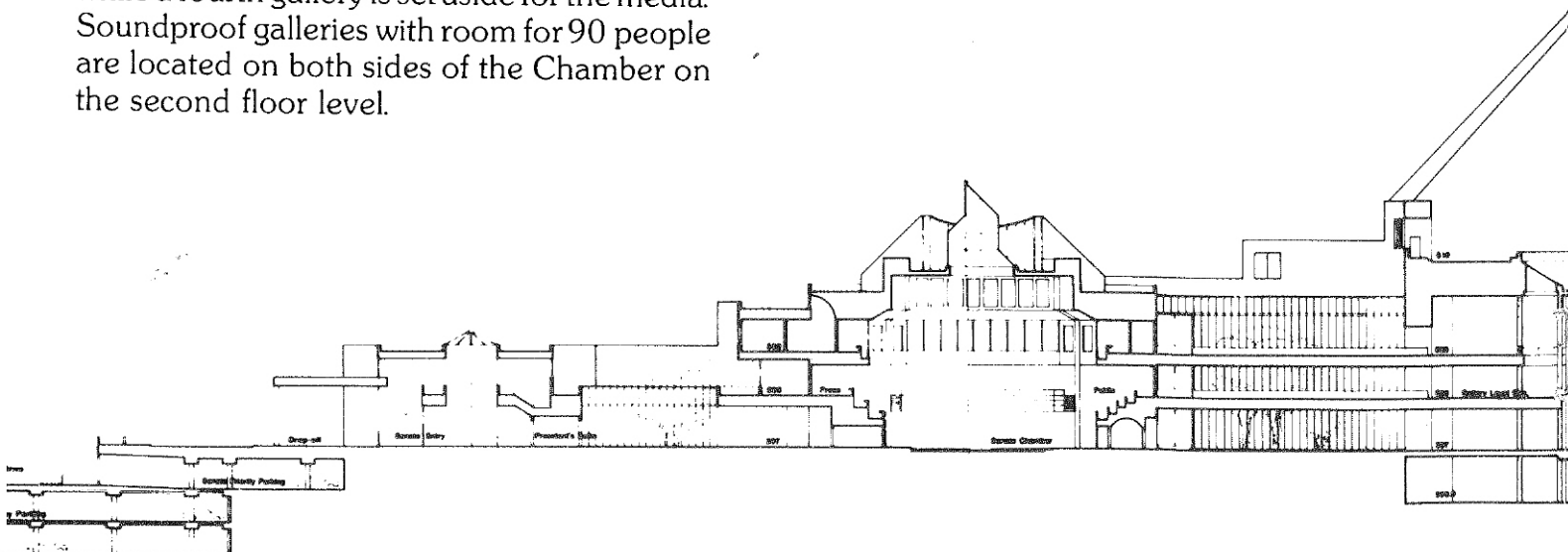
Three galleries provide accommodation for 390 visitors and space for six wheel chairs, while a fourth gallery is set aside for the media. Soundproof galleries with room for 90 people are located on both sides of the Chamber on the second floor level.

The primary reason for constructing any Parliament building is to house the two Chambers and to provide Members of Parliament along with their staff adequate space and facilities to perform the tasks for which they were elected.

From the outside of the building the Chambers can be easily identified by the unusual glass prisms located on the roof of each Chamber. During the day the prisms will be clearly visible above the remainder of the building and will provide a natural source of light. At night when the Chambers are in use, the internal lighting reflected up through the glass prisms will clearly identify each Chamber, even from a distance.

In keeping with Parliamentary tradition, the two Chambers are located on a common axis so that the Presiding Officers are facing towards each other, even though in separate Chambers.

The cross-sectional diagram on this page shows the inter-relationship between various Parliamentary and public areas.



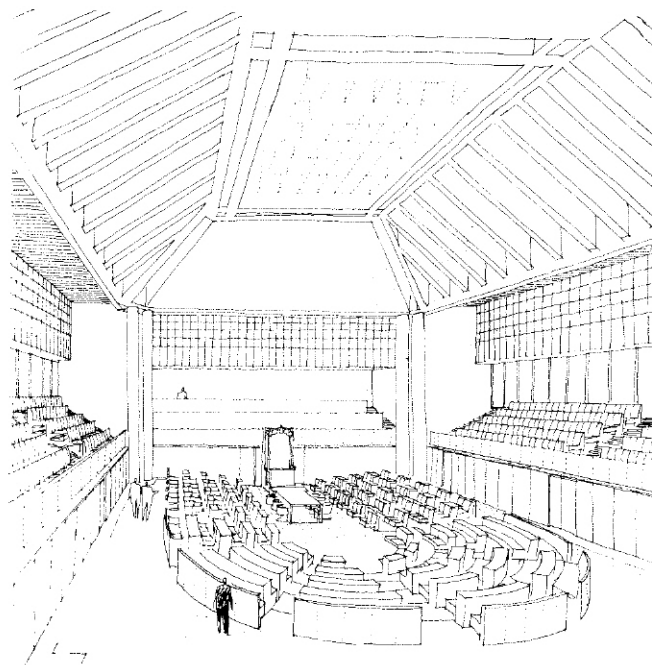
Galleries

The Senate Chamber is large enough to accommodate all Senators, Members and guests at a ceremonial opening, while the House of Representatives Chamber can accommodate all Members and Senators during a joint sitting of the Parliament.

On the ground floor, at either side of each Chamber are the Government and Opposition Lobbies. Access to the Chamber and Lobbies will be quick and easy regardless of whether Members are working in their rooms, attending committees, taking part in Cabinet, or at party meetings.

The first floor level galleries are open and allow the media and public to view the Chamber floor level and listen to the debates. The second floor galleries are enclosed and provide booths for the media and translation staff, and soundproof areas where visitors touring the building can be briefed on the operations of Parliament.

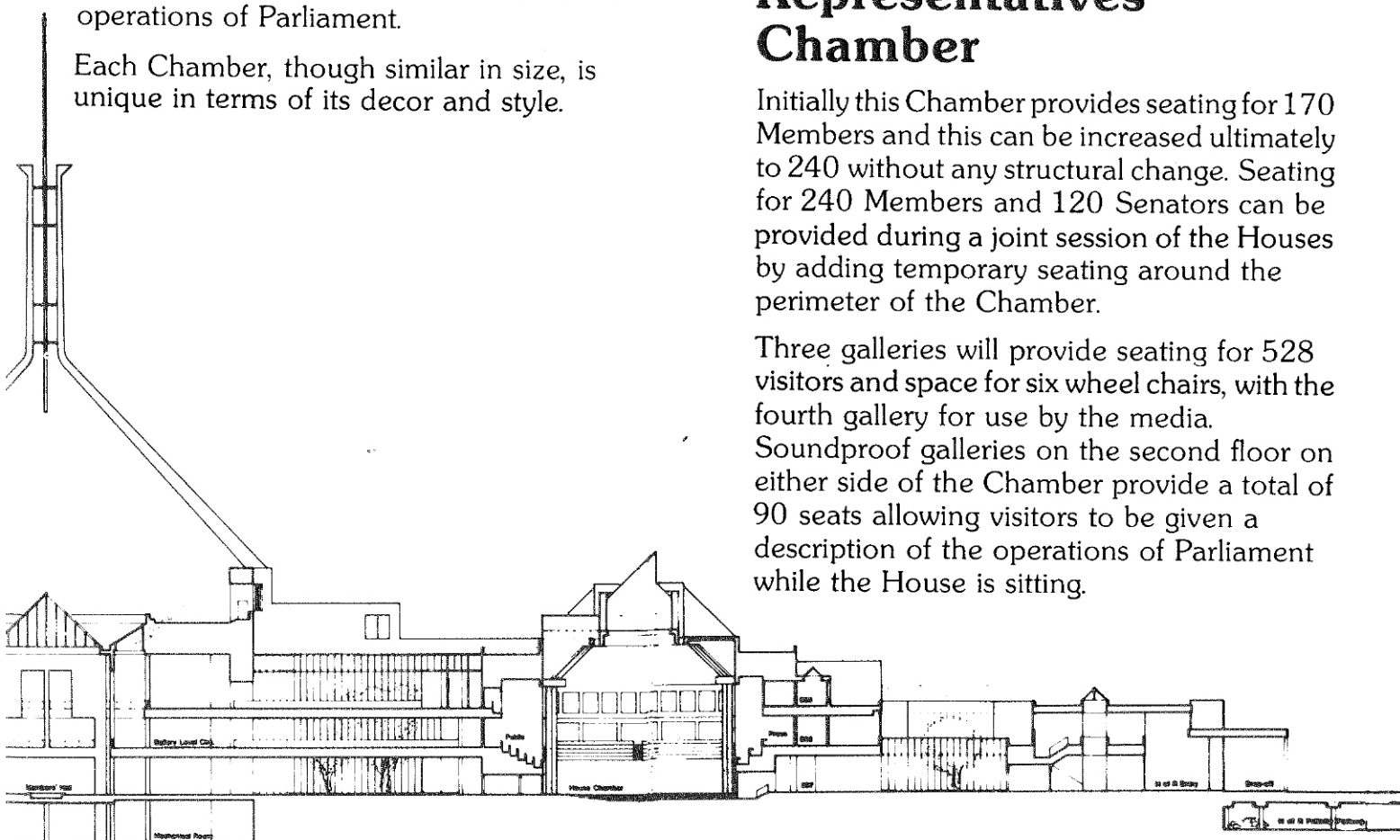
Each Chamber, though similar in size, is unique in terms of its decor and style.



House of Representatives Chamber

Initially this Chamber provides seating for 170 Members and this can be increased ultimately to 240 without any structural change. Seating for 240 Members and 120 Senators can be provided during a joint session of the Houses by adding temporary seating around the perimeter of the Chamber.

Three galleries will provide seating for 528 visitors and space for six wheel chairs, with the fourth gallery for use by the media. Soundproof galleries on the second floor on either side of the Chamber provide a total of 90 seats allowing visitors to be given a description of the operations of Parliament while the House is sitting.



The First Floor

A major proportion of the central zone is devoted to public circulation and public facilities. (*Yellow*).

To the north of the building is the main public cafeteria, the theatre and viewing rooms, the visitors reading room, the exhibition areas, and the terrace with views towards Lake Burley-Griffin.

There are extensive galleries on this level which will provide tourists with a view into the reception area, the Members Hall and both Chambers.

The accommodation

The Senate wing accommodates Senators' suites (*Dark red*), Hansard (*Grey*) and Joint House administration (*Sand*). The House of Representatives wing provides accommodation for Members (*Dark green*) and the Opposition Executive (*Light blue*). The area (*Dark blue*) at the bottom of the plan together with a similar area on the first floor is a self contained secure area for the Executive Government.

Support facilities

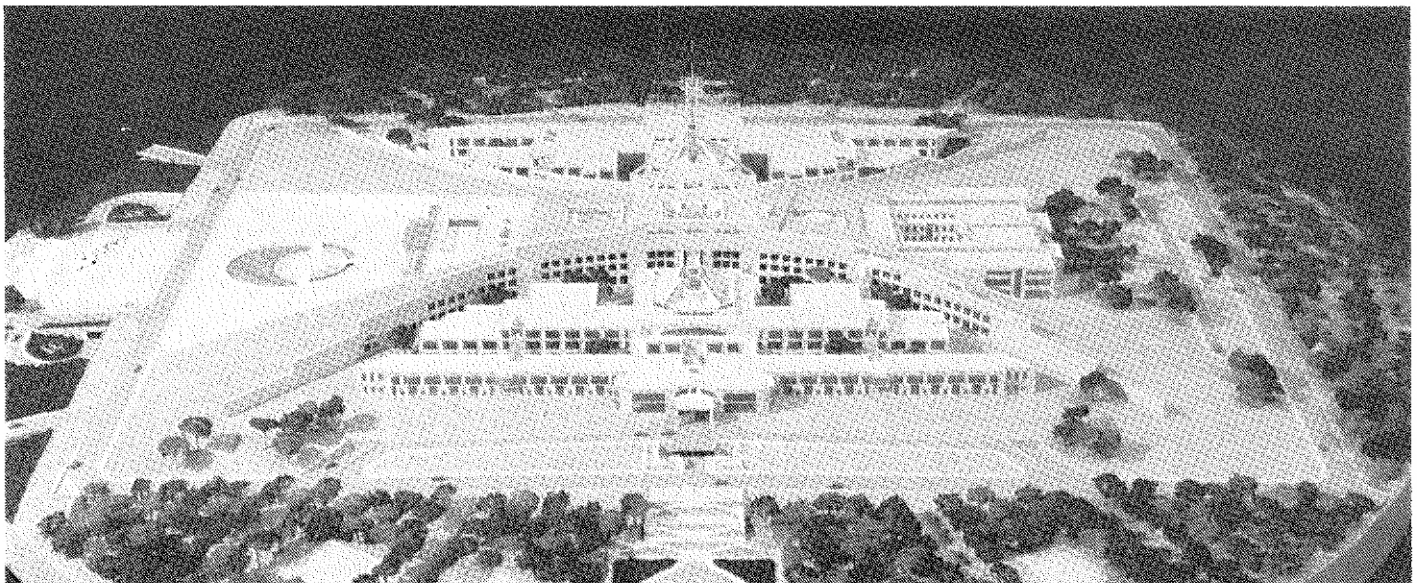
The isolated areas (*Sand*) throughout the building are attendants' areas, cleaners' stores, toilet blocks and other technical support facilities for the building.

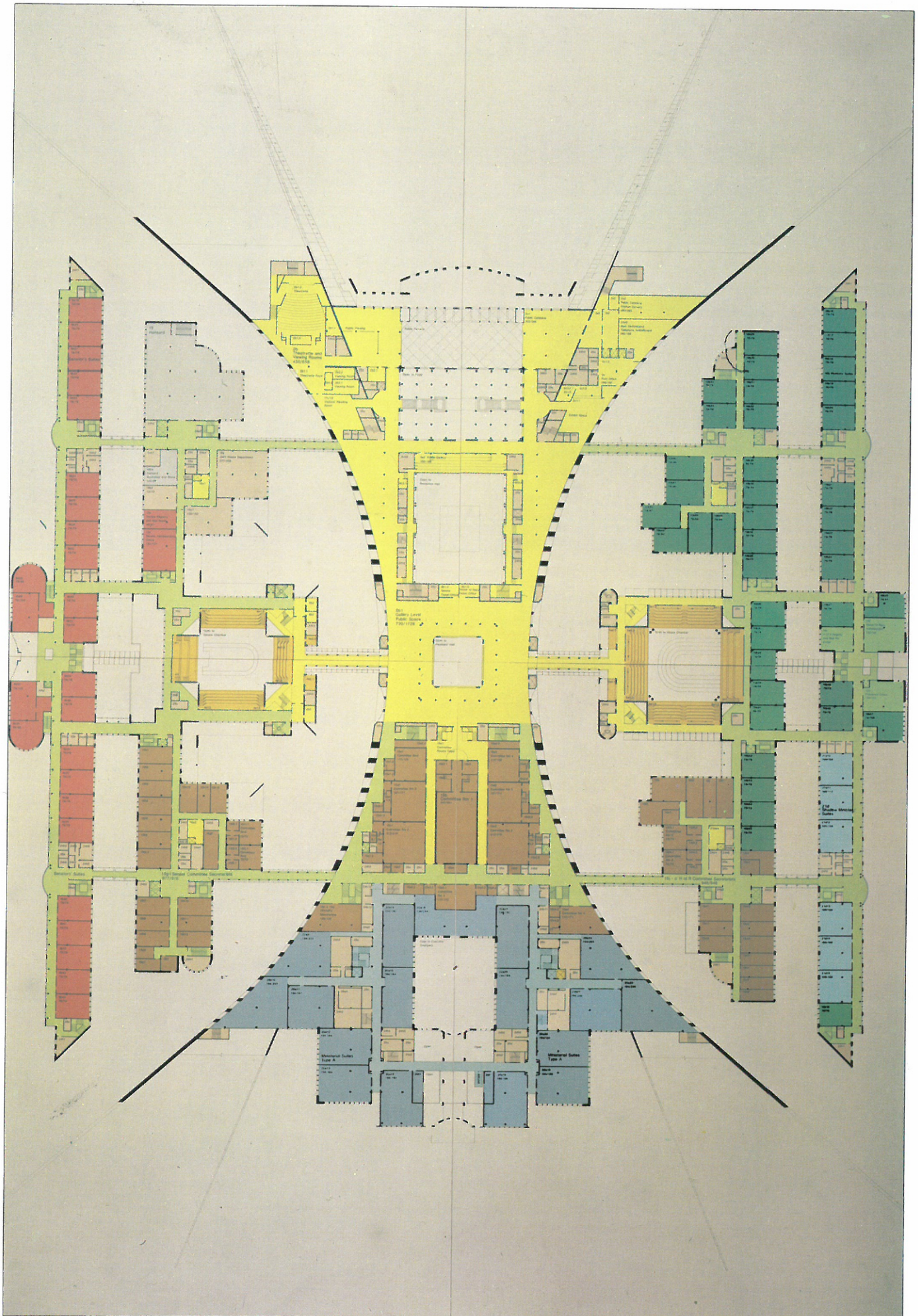
The main Committee Rooms and committee support facilities are located on this floor. (*Dark brown*). Access to the Committee Room complex will be from both the public circulation, via the area round the Members Hall, and from the general circulation. (*Pale green*).

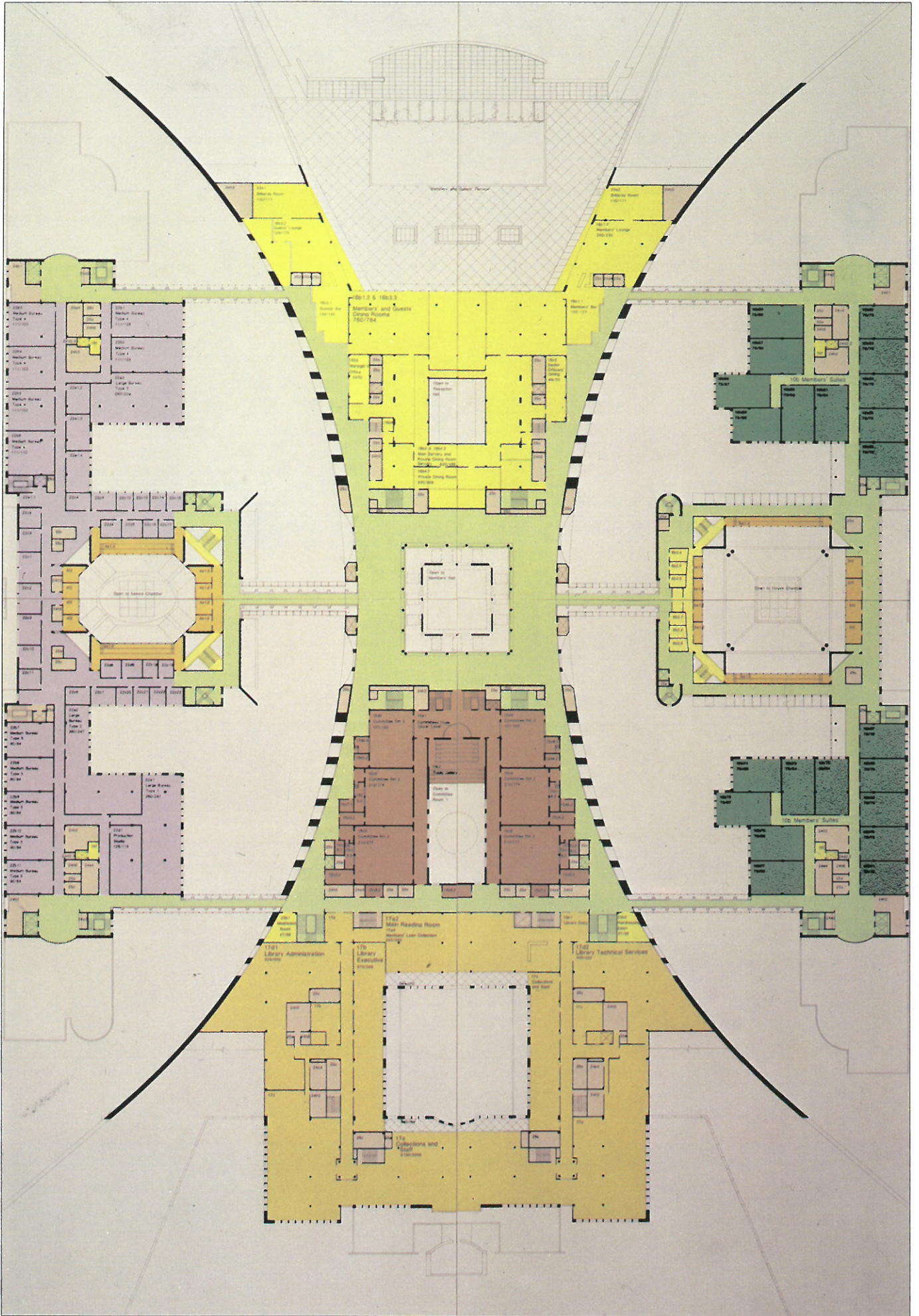
Facilities for disabled persons

The building has been designed to meet the highest possible standards for any disabled persons whether they be tourists, Members of Parliament or staff of Parliament House. This is immediately evident to visitors because there are no steps from the Forecourt through to the Grand Verandah, security area and Foyer. From the Foyer a lift is provided to take the disabled visitor to the first floor which is the main public area. Once on the first floor visitors will have access to all public facilities including the galleries of the Chambers without the need to change levels by way of steps or ramps.

Disabled visitors entering the Parliament House complex by car can be driven to the main entrance under the Forecourt area and then taken directly by lift to the Grand Verandah.







The Second Floor

Committee areas

This is the highest level of accommodation within the building and is an area which is not open to the general public except for access to the Committee Rooms located on this level. (*Dark Brown*). The void in the centre of the Committee Rooms is the upper level of the main Committee Room, which is provided with natural light from a skylight system in the roof.

Refreshment facilities

The area to the north of the central zone (*Yellow*) provides refreshment and relaxation areas for Members. The facilities are divided into those for the sole use of Members and those for Members and their guests. This permits Members to dine with their guests within Parliament without intruding on the privacy of other Members.

The Parliamentary Library

The bottom half of the central zone on the plan (*mid yellow*) is the Parliamentary Library. Within this area will be the main reading room, general library, storage and access, technical support, administration and special Parliamentary reference areas.

The Press Gallery

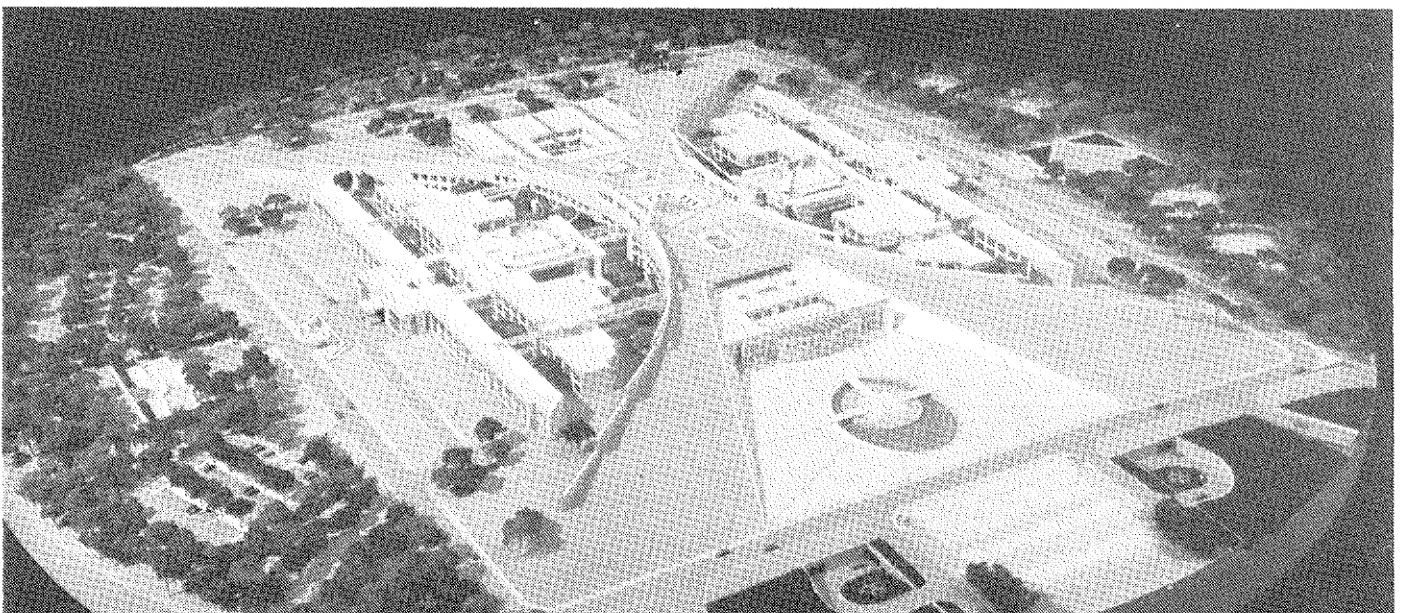
On the House of Representatives side, (*Dark green*) there will be Members suites. However, there is no corresponding need for accommodation on the Senate side and this area will be devoted to media accommodation (*Pale mauve*). This means that the media will have ready access to both Chambers and yet will have an area which is an entity in its own right and available to the Press on a 24 hour basis without intruding on the security of other areas.

The Viewing Terrace

At the north of the central zone is an open terrace looking out across the Parliamentary Triangle over the roof of the provisional Parliament House to the Lake and beyond. This area will be open to Members and their guests and will provide dramatic views of the city and the surrounding hills.

Flag tower

The design calls for a tall flag support tower which is a key visual point for the design. It is currently proposed that this tower be made of four thin cylindrical steel legs, first forming an open pyramid, then turning vertically to form the flag tower itself.



The Technical Aspects

Structural elements

Although the architecture of the building is inovative, it does not require new technology in its construction. Conventional reinforced concrete has been chosen as the main construction material for the project. This has major advantages in the simplicity and permanency of the structure, in fire protection, reduced noise and vibration levels, and the speed with which the building can be constructed.

A "waffle" system of flooring, designed to save weight without compromising strength, has been selected for the new building. This means that the floor surface will be flat on top, with a criss-cross pattern underneath, created by using a special formwork. This system is already widely used in the building industry because of its cost, strength and constructional advantages.

The vertical support within most of the building comes from reinforced concrete columns which deliver the load into simple foundations set in rock. The facade of the building will be precast concrete often with natural stone treatments.

The large curved walls on either side of the central zone will provide much of the structural stability of the building. These will be of reinforced concrete with high quality finishes.

Foundations and earthworks

Continuous assessment of the rock conditions has been carried out during the excavation of the site, to ensure suitable quality and uniformity of foundation conditions. The majority of the building will be supported directly on undisturbed rock, however where floors are located over fill areas of the site, they will be designed so as not to rely on support from the foundation material.

Landscape

The objective of the landscape proposal is to create a setting of appropriate scale and

character for the new Parliament House. This will apply both within the complex and in the larger context of the Capital area.

Around the edge of the site there will be dense areas of native trees, while closer to the building the gardens will be treated in a more formal manner. Native and exotic plants and shrubs will be selected to suit particular areas in functional and aesthetic terms.

The four grass ramps to the top of the complex climb at a uniform slope from the level of Parliament Drive. They are traversed by a series of granite bands which increase in frequency as the ramps rise up to the observation terrace located at the summit, below the flag.

Transportation

Traffic routes within Capital Hill have been influenced by the existing road system and the "preferred transport scheme" put forward by the National Capital Development Commission.

The functions of Capital Circle and State Circle remain substantially the same as in the current traffic pattern, however, they are supplemented by a roadway within the Capital Hill site known as Parliament Drive. This follows a rectangular pattern around the building complex and traffic is encouraged to drive slowly on this roadway by means of sharp turns, and special surface treatments at pedestrian crossings.

New public access ramps will connect to Parliament Drive at Commonwealth, Kings and Melbourne Avenues, whilst a bus and VIP only connection will be made to Adelaide Avenue.

Environment

The impact of traffic noise, wind and sun on the building has been examined and steps have been taken to ensure that the adverse effects of these are kept to a minimum.

No traffic noise problems are anticipated as traffic is generally kept well away from the building and noise is minimised by the tree

cover close to the building and the double glazing.

Protection from the wind is achieved by the building structure itself. The landscape solution with its extensive use of trees also provides pleasant areas for outdoor recreation around the building.

Sun control is achieved by tinted double glazing, using insulated safety glass with ultra violet filters on all windows. Individual windows in high sunlight areas will also be equipped with adjustable internal louvres.

Energy management

The most important component in the energy management concept is the Building Automation System. In order to maximise the energy management potential and optimise energy usage, it will be necessary to use the programming capabilities of a computer based system.

The system will allow the remote control of all lighting circuits throughout the building, control the air conditioning, heating and cooling. Preventive maintenance schedules can also be produced to ensure the orderly maintenance of equipment without disruption to individual services.

Goods and document conveying systems

A number of mechanical systems are planned to facilitate the movement of goods and documents into and throughout the building.

An underground unloading/loading dock has been provided outside Parliament Drive where goods can be unloaded, security screened and then transferred into the building by a continuous conveyor or forklift trucks.

Other systems for distribution include pneumatic tubes, mechanical document transfer and goods lifts. It is also planned to incorporate a centralised waste disposal system in the building.

Fire protection

A fire protection and life safety plan has been formulated for the new building incorporating the latest ideas and standards.

The building will be divided into zones for protection and alert purposes, with public

address and warning systems for either specific zones or the entire building.

Emergency lighting will ensure sufficient light for the safe and orderly evacuation of the building.

Materials and finishes

Wherever practicable Australian materials will be used in the new building. Exterior and interior materials and finishes will be chosen after assessing their physical appearance, durability and long term economy.

The walls of the Senate, House and Executive areas will be clad in concrete panels with a surface of fine stone aggregate. Selected sections will have a thin inlay of Australian stone, the base and coping of the walls will be of granite. Granite panels will be used to clad the large curved walls of the central portion of the building providing an interesting contrast with the lighter finishes on the surrounding structure.

Office areas and other low-traffic areas will have high quality wool carpet on concrete floors. The floors of the main circulation routes will be finished with hard surfaces such as slate or timber strip flooring, while the main ceremonial spaces will have special treatments in keeping with their function. For example, the Reception Hall floor may be of hardwood parquet, the Members Hall floor of polished marble and the Foyer polished granite.

Internal walls will be finished with hard plaster, timber panelling or ceramic tiles. Public areas will be given particular attention to ensure that they are attractive, functional and need little maintenance.

Security

The building design attempts to provide a high standard of personal and building security whilst still maintaining the greatest possible degree of openness and the feeling of unrestricted access throughout the building.

Primary security is achieved by the control of all entrances and intersections between public, general and Executive circulation systems. This is enhanced by the logical pattern of circulation throughout the building which minimises the intersections and provides unobstructed access to areas of equal levels of security.

The Management Philosophy

The Parliament House Construction Authority

The Parliament House Construction Authority was established by Parliament to undertake the design and construction of the new Parliament House. The Authority has chosen to remain a small management orientated organisation. The Authority has therefore assembled in Canberra a wide range of consultants, both public and private, to carry out the day to day tasks associated with the design and construction of the new Parliament House.

The Architectural Team

The Architects who won the design competition, Mitchell, Giurgola and Thorp, have engaged major Australian and American companies as their technical consultants. Their role is to carry out the whole of the design and documentation of the new Parliament House. The Architect will also have a continuing responsibility to ensure that the integrity of the design is maintained throughout the construction period. The Architect is required to prepare a detailed design and then produce drawings and specifications as construction packages in accordance with an agreed programme.

The Construction Manager

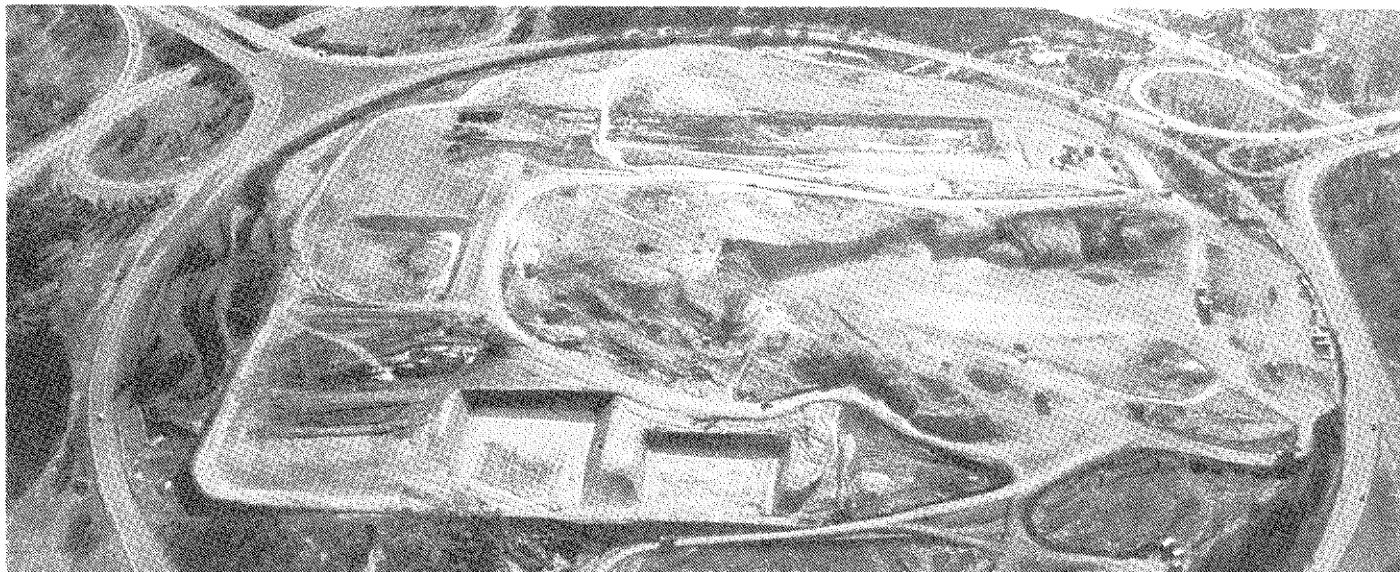
The construction phase will be co-ordinated and supervised by a Construction Manager, the joint venture of Concrete Constructions and John Holland, who will be required to arrange for the construction of each parcel of work in accordance with the Architect's plans and specifications. The work will be carried out by individual contractors selected through the public tendering system and the Construction Manager will administer these contracts on behalf of the Authority but will not let tenders. This can only be done by the Authority.

The Cost Planner

The Cost Planner to the project, Rawlinson Roberts & Associates, provides a detailed cost estimate and the cost plan for all aspects of the project. Systems for monitoring, updating and controlling costs; analysis of tenders; and advice on possible areas of cost saving will be an essential part of the Cost Planner's work.

The Project

The Project Planner, the McLachlan Group, has been engaged for the project. Their responsibility is to identify every task, to attach a realistic time scale to each and to place each one in a sequence and time scale necessary to ensure that information is



available to the right people at the right time. This is also a service to all parties and the timetable is adopted by agreement.

Cost control

A key objective of the Parliament House Construction Authority is to construct the Parliament House within the budget approved by Parliament. This means achieving all reasonable economies consistent with the status and functions of the building and within the detailed requirements approved by Parliament.

The building Brief which was established in consultation with the Joint Standing Committee on the New and Permanent Parliament House was the basis for the design. The Authority believes that the Schematic Design as outlined in this report meets the requirements laid down in the Brief and provides a building which will be an efficient, effective and pleasant working environment for all Members and their staff. It also provides sufficient flexibility to accommodate all reasonable future changes. However, with a building as complex as the Parliament House which has to satisfy so many different and sometimes conflicting demands, it must be expected that in the years until the building is ultimately completed, there may be some need for modification. The Construction Authority will endeavour to accommodate all reasonable requests for change within the building budget. However, where Parliament or the Government require changes to the accepted statement of requirements, and these involve increased costs, such changes will only be incorporated where specific Government/Parliamentary approval is given to adjust the budget accordingly. In this way Parliament, through the Construction Authority, will have the opportunity to control the cost of the new building.

Cost of the Parliament House

In August 1980 Parliament agreed to a building budget of \$220 million at May 1978 prices. The Authority estimates that the increase in the building index for materials and labour in the period from May 1978 to June 1981 is 35 per cent thus giving a building

budget at current day prices of \$296 million. This remains the budget of the Construction Authority.

Design change

From the extensive discussions between the Authority and the users of the building, there have been a number of requests for changes to the Brief. These requests have been considered by either the Joint Standing Committee or the Government and fall into four categories:

1. Accommodation.

Increases in the area of the post office and office accommodation. Additional seating in the Senate Gallery — Estimated cost \$0.9 million.

2. Refreshment Services

Increased dining facilities for public and staff. Room service for Senators and Members. Refreshment facilities in Senators' and members' suites. — Estimated cost \$2.75 million.

3. Security.

Relocation of high risk areas such as parking and unloading facilities from under the building. Communications and other facilities for the management of national emergencies. Additional security control points at all building entrances and intersections of different circulation routes. Estimated cost \$5.25 million.

4. Savings.

Cost offset by raising the building and removal of the notional defence shelter. Estimated saving \$1.0 million.

Most of these changes have been incorporated into the Schematic Design submission to show the effect on the building layout and if approved by Parliament will cost \$7.9 million (*June 1981 prices*).

Area schedule

An area comparison between the Architects Brief and the Schematic Design submission is in appendix 1.

Where there are any areas which are less than the brief requirement, these will be examined during the next design phase, with a view to correcting shortfalls.

The Construction Programme

Design

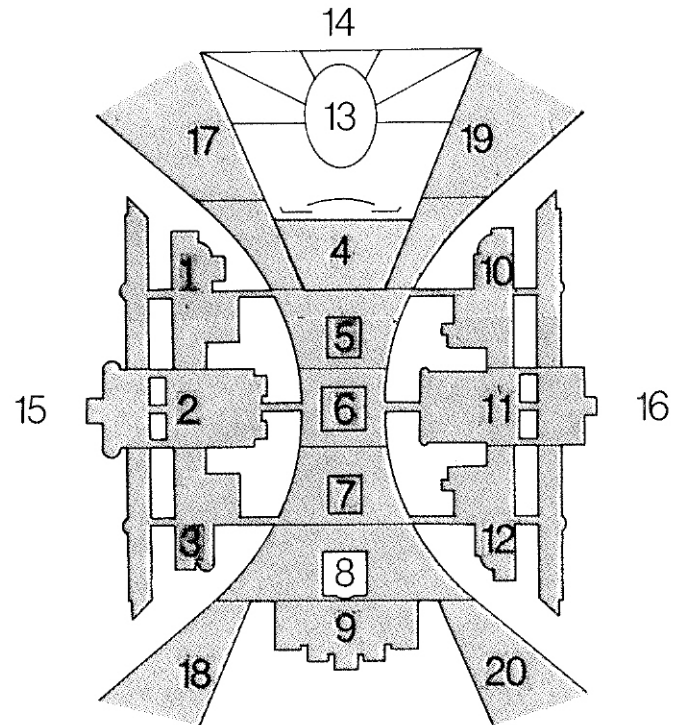
The Schematic Design represents a key point in the design programme, for it provides an overall design framework which, when approved by Parliament, will provide the basis for detailed design and documentation.

The next phase in the design programme, is the Developed Design, which is scheduled for completion by June 1982 to be presented to the Joint Standing Committee.

At that stage room sizes and layouts will be determined, materials and finishes selected and building and construction details defined.

Some documentation of tender packages will commence following Parliamentary approval of the Schematic Design, particularly in the Forecourt area, but the main work on documentation will be carried out following approval to the Developed Design.

Documentation and preparation of specifications will continue through until early 1986.



(Note: The numbers do not reflect order of construction).

Building zones

The entire complex has been divided into 20 major zones for design and construction purposes.

Work on these zones will be phased so that an orderly construction programme can be followed making the most of the resources and manpower on the site. With about 800 contracts scheduled to be let during the project, it is important to have a clear sequence of work packages which allows a degree of continuity between the various contractors.

Areas surrounding the building will be developed in sequence with the work package of the adjacent structure. Particular attention will be given to the landscaping and planting schedule which will start as soon as major excavation work is completed.

Construction

Following Parliamentary approval of the next Declared Stage, that is — Construction of Parliament House — work will commence in the Forecourt area under the ramps to the north of the building.

Construction will then commence progressively in the sequence described in the building zone chart, with the main structural element being completed by the end of 1985.

The Fitout and commissioning of the building will extend over the period from early 1983 to mid 1987. This will then provide time for progressive occupation and the official opening in 1988 as part of the Bicentenary celebrations.

Associated work outside the site will be carried out by the National Capital Development Commission and will be co-ordinated with the Authority's on-site work.

Australia's New Parliament House is being designed and built by

The Parliament House Construction Authority

The Authority

Sir Bernard Callinan — C.B.E., D.S.O., M.C., B.C.E., Dip. T.R.P.,
Chairman. F.I.E. (Aust), F.T.S., F.I.C.E., F.I. Arb.A.

Mr R.D.H. Ling, — B.E.

Mr N.M. Macphillamy, — B.A., LL.B.

Mr L.M. Muir, — V.R.D., LL.B., A.S.I.A., F.A.I.M.

Sir John Overall, — C.B.E., M.C., L.F.R.A.I.A., L.F.R.A.P.I., F.R.T.P.I.

Commissioner N.C.D.C.

Mr A.J.W. Powell — B.E., Dip. T.C.P., M.T.C.P., M.R.A.P.I.
(Ex officio member)

Mr G.R. Peatey — Executive Officer.

The Major Consultants

Architects — Mitchell, Giurgola & Thorp, Architects.

Structural Engineers — Irwin Johnston & Partners.

Associated Consulting Engineers — Joseph R. Loring & Associates Inc.

Norman Disney & Young

W.E. Bassett & Partners Pty. Ltd.

Ledingham Hensby Oxley & Partners Pty. Ltd.

Donald Cant, Watts, Hawes & Lee Pty. Ltd.

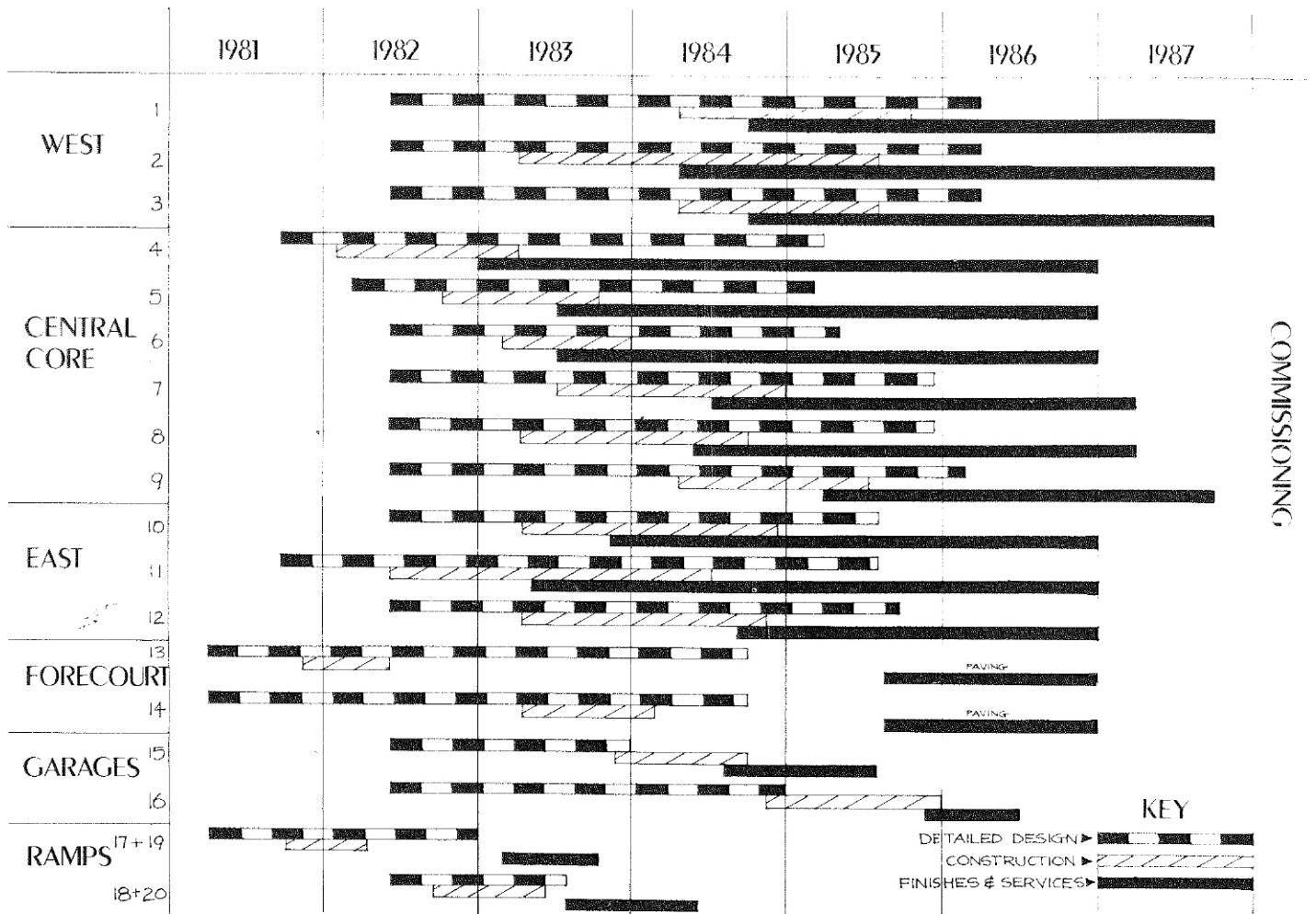
Peter G. Rolland & Associates.

Landscape Architects — Peter G. Rolland & Associates.

Construction Managers — Concrete Constructions/John Holland J.V.

Cost Planners — Rawlinson Roberts.

Project Planners — The McLachlan Group



COMMISSIONING

APPENDIX 1 — COMPONENT AREA SCHEDULE

	Architects' Brief M ²	Schematic Design M ²	ELEMENT 14 — HOUSE OF REPRESENTATIVES DEPARTMENT ADMINISTRATION	
ELEMENT 1 — FOYER			14a. House of Representatives Administrative Office	166 175
1a. Main entry	270	490	14b. House of Representatives Stores	160 169
1b. Foyer	1027	1246	14c. House of Representatives Registry and Mail Room	81 84
	1297	1736		407 428
ELEMENT 2 — PUBLIC FACILITIES			ELEMENT 15 — COMMITTEE ROOMS	
2a. Public Cafeteria	610	633	15a. Committee Room Foyer	218 311
2b. Theatre and viewing rooms	450	658	15b. Committee Room Type 1	542 551
2c. Post Office	188	197	15c. Committee Rooms Type 2	1314 1250
2d. Public Viewing Area	—	368	15d. Committee Rooms Type 3	584 684
	1248	1856	15e. Committee Rooms Type 4	504 607
ELEMENT 3 — RECEPTION HALL			15f. Committee Rooms Type 5	324 324
3a. Reception Hall	1445	1590	15g. Senate Committees Secretariats	107 111
3b. Reception Hall Kitchen and Bar	271	380	15h. Senate Committees Secretariats	780 774
	1716	1970	15i. Expert Advisers' Offices	90 91
ELEMENT 4 — SENATE CHAMBER			15j. H. of R. Committees Secretariats	63 55
4a. Senate Chamber	315	399	15k. H. of R. Committee Secret. Type 1	103 86
4b. Senate Lobbies	400	400	15l. H. of R. Committee Secret. Type 2	264 264
4c. Senate Sound and TV Facilities	27	31	15m. H. of R. Committee Secret. Type 3	200 223
4d. Senate Service Rooms	50	69	15n. H. of R. Committee Secret. Type 4	258 265
4e. Senate Visitors' Galleries	545	611	15o. Expert Advisers' Offices	60 55
4f. Senate Press Gallery	120	167	15p. L.P.U. Secretariat	69 69
	1457	1677	15q. C.P.A. Secretariat	69 69
ELEMENT 5 — HOUSE OF REPRESENTATIVES CHAMBER				5549 5789
5a. House of Representatives Chamber	420	576	ELEMENT 16 — REFRESHMENT ROOMS	
5b. House of Representatives Chamber Lobbies	500	548	16a. Kitchen and Stores	1494 1524
5c. House of Representatives Sound and TV Facilities	27	32	16b. Members' and Guests' Facilities	2394 2370
5d. House of Representatives Service Rooms	55	77	16c. Staff Facilities	1067 1173
5e. House of Representatives Visitors' Galleries	545	696	16d. Finishing Kitchen	180 150
5f. House of Representatives Press Gallery	160	250	16e. Room Service Kitchens	100 132
	1707	2179	16f. Trolley Rooms	— 120
ELEMENT 6 — CIRCULATION SPACES				5235 5420
6a. Chamber Level Circulation Space	500	1929	ELEMENT 17 — PARLIAMENTARY LIBRARY	
6b. Gallery Level Public Space	868	1856	17a. Reading and Reference Areas	1188 1248
	1368	3785	17b. Library Executive	370 389
ELEMENT 7 — SENATE OFFICE HOLDERS			17c. Collections and Staff	2190 2202
7a. President and Deputy President	338	356	17d. Library Service Functions	998 986
7b. Government Party Whips	183	183		4746 4825
7c. Opposition Party Whips	183	183	ELEMENT 18 — JOINT HOUSE DEPARTMENT	
7d. Minor Party Whips	170	167	18a. Joint House Dept. Administration	277 256
7e. Senate Entry	—	130	18b. Joint House Dept. Engineering	522 543
	874	1019	18c. Joint House Dept. Housekeeping	120 152
ELEMENT 8 — HOUSE OF REPRESENTATIVES OFFICE HOLDERS			18d. Joint House Dept. Gardening	160 160
8a. Speaker and Deputy Speaker	345	354	18e. Goods Receiving Area	130 136
8b. Government Party Whips	183	176		1209 1247
8c. Opposition Party Whips	183	176	ELEMENT 19 — HANSARD	
8d. Third Party Whips	170	172	19a. Hansard Reporting Staff	822 } 1196
8e. House of Representatives Entry	—	150	19b. Hansard Administration	361 } 1196
	881	1028		1183 1196
ELEMENT 9 — SENATORS			ELEMENT 20 — EXECUTIVE GOVERNMENT	
9a. Minor Party Leaders — Senate	296	304	20a. Prime Minister's Suite	693 710
9b. Senators' Suites	3432	3490	20b. Cabinet	424 535
9c. Party and Party Committee Rooms	305	334	20c. Deputy Prime Minister's Suite	281 282
9d. Senate Transport Office	80	80	20d. Leaders' Suites	479 632
	3879	4208	20e. Ministerial Suites	5272 5443
ELEMENT 10 — MEMBERS			20f. Multi-purpose Rooms	85 128
10a. Third Party Leaders — House of Representatives	187	192	20g. Press Conference Room	50 90
10b. Members' Suites	6006	6232	20h. Government Information Unit	100 110
10c. Party and Party Committee Rooms	635	619	20i. Parliamentary Counsel	32 42
10d. House of Representatives Transport Office	86	81		7416 8029
	6914	7078	ELEMENT 21 — OPPOSITION EXECUTIVE	
ELEMENT 11 — SENATE CHAMBER SUPPORT			21a. Opposition Leaders — Senate	345 352
11a. Clerks — Senate	227	230	21b. Shadow Ministers' Suites — Senate	327 344
11b. Chamber and Legislation Branch	175	175	21c. Opposition Leaders — House of Representatives	706 717
11c. Journals, Records and Research Branch	318	311	21d. Shadow Ministers — House of Representatives	1940 1951
11d. Usher of the Black Rod and Deputy	65	84		3318 3364
11e. Printing Office	180	206	ELEMENT 22 — MEDIA	
	965	1006	22a. Large Sized Bureaux	780 728
ELEMENT 12 — HOUSE OF REPRESENTATIVES CHAMBER SUPPORT			22b. Medium Sized Bureaux	1116 1099
12a. Clerks — House of Representatives	227	229	22c. Small Sized Bureaux	467 473
12b. Table Office	355	355	22d. Production Studios	529 534
12c. Sergeant-at-Arms and Deputy	65	68	22e. Common Areas	130 155
12d. Procedure Office — House of Representatives	120	125		3022 2989
12e. Printing Office	180	193	ELEMENT 23 — AMENITIES	
	947	970	23a. Indoor Recreational Facilities	950 1389
ELEMENT 13 — SENATE DEPARTMENT ADMINISTRATION			23b. Personal Services	203 215
13a. Senate Administrative Office	130	131	23c. Spouses' Lounges	80 65
13b. Senate Department Stores	130	128	23d. Staff Amenities	223 199
13c. Senate Department Registry and Mail Room	40	67		1456 1868
	300	326	ELEMENT 24 — MISCELLANEOUS	
			24a. Attendants	264 374
			24b. Security Guards	1052 1278
			24c. Special Services	740 1094
			24d. Telecommunications	956 952
			24e. Sound and Television Services	358 403
			24f. Civil Defence Shelter	— —
			24g. Staff Facilities and Sanitary Accommodation	1615 1677
			24h. External Areas (Not totalled)	(50,030) (54,512)
			24i. Parking (Vehicles Spaces)	(1950) (1956)



