
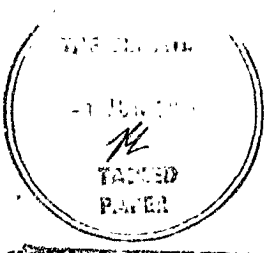

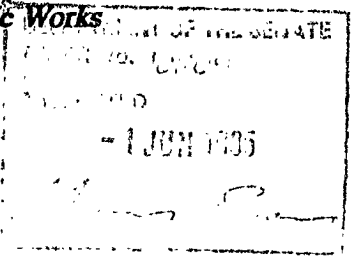

*Parliamentary Standing Committee on Public Works*

# REPORT

relating to the proposed

# CONSTRUCTION OF A MULTI-LEVEL CARPARK FOR THE FEDERAL AIRPORTS CORPORATION AT MELBOURNE AIRPORT

(Seventh Report of 1995)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
1995

The Parliament of the Commonwealth of Australia

Parliamentary Standing Committee on Public Works

Report relating

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# Constructioon of a multi-level carpark for the Federal Airports Corporation at Melbourne Airport.

(Seventh Report of 1995)

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(Thirty-First Committee)

Mr Colin Hollis MP (Chair)
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| Senator Bryant Robert Burns | Mr John Neil Andrew MP |
| Senator Shayne Michael Murphy* | Mr Raymond Allen Braithwaite MP |
| | Mr Russell Neville Gorman MP |
| | Mr Robert George Halverson OBE MP |
| | Hon. Benjamin Charles Humphreys MP |

*Replaced Senator John Devereux on 10 February 1995

SECTIONAL COMMITTEE ON THE PROPOSED CONSTRUCTION OF A MULTI-LEVEL CARPARK FOR THE FEDERAL AIRPORTS CORPORATION AT MELBOURNE AIRPORT

Mr Colin Hollis MP (Chair)
Senator Paul Calvert (Vice-Chair)
Mr Russell Neville Gorman MP
Hon. Benjamin Charles Humphreys MP

| | |
|---|---|
| Committee Secretary: | Peter Roberts |
| Inquiry Secretary: | Michael Fetter |
| Secretarial Support: | Mahesh Wijeratne |

EXTRACT FROM THE
VOTES AND PROCEEDINGS OF
THE HOUSE OF REPRESENTATIVES

No. 113 dated Wednesday, 7 December 1994

33 **PUBLIC WORKS – PARLIAMENTARY STANDING COMMITTEE – REFERENCE OF WORK – CONSTRUCTION OF A MEULI-LEVEL CARPARK FOR THE FEDERAL AIRPORTS CORPORATION AT MELBOURNE AIRPORT**

Mr Walker (Minister for Administrative Services), 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: Construction of a multi-level carpark for the Federal Airports Corporation at Melbourne Airport.

*Paper*: Mr Walker presented plans in connection with the proposed work.

Question – put and passed.

Question – put and passed.



# PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

## CONSTRUCTION OF A MULTI-LEVEL CARPARK FOR THE FEDERAL AIRPORTS CORPORATION AT MELBOURNE AIRPORT

On 7 December 1994 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report to Parliament the proposed construction of a multi-level carpark for the Federal Airports Corporation at Melbourne Airport.

## THE REFERENCE

1. Melbourne Airport is the second busiest in Australia and is subject to continuing growth in passenger movements. The existing short-term car park is suffering severe congestion and frequent closure. The Federal Airports Corporation believes that it is necessary to increase the capacity of the short-term car park by providing a multi-level car park adjacent to the terminal.

2. The scope of the proposal examined by the Committee included a four-level, open-sided concrete car park consisting of:

- a covered ground level of 20 869m$^2$
- three suspended decks, including the open roof level, totalling 58 665m$^2$
- a ground floor open car park of 23 500m$^2$

3. It also included - associated facilities (such as office accommodation for car rental companies and police), accommodation for some high vehicles, lifts, stairs, pedestrian bridges, goods loading dock, landscaping and planting.

4. The preliminary cost estimate of the project is $55m.

## THE COMMITTEE'S INVESTIGATION

5. A Sectional Committee comprising Mr Hollis (Chair), Senator Calvert (Vice-Chair), Mr Gorman and Mr Humphreys was appointed to undertake the inquiry.

6. The Committee received a submission and drawings from the Federal Airports Corporation (FAC) and took evidence from representatives of the FAC at a public hearing held at Melbourne Airport on 15 February 1995.

7. The Committee also received written submissions and took evidence from the following:

- Victorian Government
- Qantas Airways
- Melbourne Metropolitan Fire Brigades
- Public Transport Users Association.

8. Written submissions were also received from the following organisations:

- Ansett Australia
- Commonwealth Fire Board
- Intelligent Lighting Controls Pty Ltd
- Commonwealth Department of Primary Industries and Energy
- Environment Protection Agency
- Australian Nature Conservation Agency
- Australian Heritage Commission
- Hume City Council



- Tapper Communication Pty Ltd
- Wilson Parking Australia Pty Ltd.

9. Prior to the public hearing the Committee inspected the site proposed for the multi-level carpark. The opportunity was taken to inspect the progress of construction on the international terminal facilities, which were examined and reported on in 1989 *(Committee's Fifteenth Report of 1989, Parliamentary Paper 283/1989).*

10. A list of witnesses who appeared at the public hearing is at Appendix A. The Committee's proceedings will be printed as Minutes of Evidence.

## BACKGROUND

### Melbourne Airport

11. Melbourne Airport was commissioned in 1970. The terminal building was designed to accommodate international and domestic services. The central section of the terminal is used for international flights with domestic operations being located at the southern and northern ends. The terminal is served by a two-level one-way road system which facilitates access to the departure and arrivals levels.

12. A major expansion and refurbishment of the terminal is currently underway and the domestic airlines have also undertaken significant refurbishment of their areas. Works being undertaken by the FAC, estimated to cost $190m, include a new satellite building, providing additional gates, being constructed at the end of the central international pier which is being funded under the One Nation program.

### FAC Charter

13. The FAC has been given a charter by Parliament requiring it to make a profit and return a dividend to the Government. Revenue is raised through aeronautical charges, rents and commercial enterprises.

## THE NEED

### Parking capacity

14. Short-term carparking for users of the terminal is provided by a ground level carpark adjacent to the terminal. The total parking capacity on and around the airport has increased from 4800 spaces in 1988 to 6800 in 1994. The FAC's share of this capacity was 3500 in 1988, and increased to 4000 in 1994. The short-term facility, of 1800 spaces is adjacent to the terminal and a long-term carpark, with 2300 spaces, is situated at a more remote site.

### Use of short-term carpark

15. The short-term carpark is mainly used by people meeting or farewelling passengers. About 85% of users park for less than three hours. The FAC advised the Committee that the carpark is subject to severe congestion and frequent closure. The long-term carpark has been used as an overflow facility but this cannot continue because it regularly reaches capacity in its own right. The use of the long-term carpark for short-term parking is undesirable due to its remoteness from the terminal. The redevelopment of the road system in front of the terminal will result in the loss of 250 parking spaces in the short-term carpark.

### Forecasts

16. The FAC advised that average growth at Melbourne Airport over the next 20 years will be 4.3% for international passengers and 2.7% for domestic passengers. It is estimated that there will be an increase in vehicle numbers from 2.4 million in 1993 to 2.6 million in 1997 and 3.1 million by 2002. This equates to a demand for 3200 short-term parking spaces by 2002.

17. Qantas questioned the accuracy of forecast growth and claimed that the FAC's data is dated. Qantas has experienced growth rates of 8% per annum for domestic passengers and 6% for international passengers but did, however, acknowledge that in the past its own forecasts have been shown to be inaccurate because they underestimated the impact of the merger of Qantas with Australian Airlines. The FAC advised the Committee that should it transpire that growth matches Qantas forecasts, the initial scope of any carpark development would be unlikely to change; further expansion would need to be brought forward.



### Alternatives considered

18. The FAC indicated that three alternatives were identified. The first, provision of a ground level carpark at a remote location. The FAC believe this would not be a satisfactory solution because it would offer a very poor level of customer service. It would also result in a significant reduction in estimated growth and possible loss of business because of inconvenience imposed on airport users. Tariffs applying at a remote location would be lower. In summary, the combined impacts of lower levels of service, lower demand and lower tariffs associated with a remote carpark would produce an unsatisfactory result.

19. The second option identified by the FAC would be the 'do nothing' solution. The FAC believes that this option would result in severe congestion as a large proportion of the carpark customers are infrequent visitors to the airport. They would not be aware of parking shortages. As mentioned previously, overflows already occur and this problem would be exacerbated by not providing for future growth.

20. The FAC believes a third option, involving tariff increases to reduce or deter demand to be unacceptable and inappropriate.

### Public transport

21. The Public Transport Users Association (PTUA), a voluntary association representing public transport users in Victoria, made the following points:

- the need for improved carparking at Melbourne airport should be subjected to more wide-ranging environmental impact assessment
- any development designed to increase carparking capacity at Melbourne airport will perpetuate the status quo which essentially involves private transport being the sole mode of access to and from the airport
- provision of an expanded airport carpark will delay for many years the possibility of a public transport link and exacerbate problems such as greenhouse gas emissions and other atmospheric pollutants and traffic congestion.

22. The PTUA suggested that an option not examined in any detail by the FAC, involving a demand management strategy, should be undertaken. The extent of public transport to the airport, according to the PTUA, is unattractive and attracts a negligible share of airport travellers. Sydney, by way of contrast, has a high quality public bus service to its airport. The PTUA believes that the diversion of airport travellers to public transport would produce greater environmental benefits. There is spare capacity on Melbourne's existing suburban rail network and infrastructure costs of an airport rail link would be lower than Sydney owing to the existence of two viable alternative routes which pass through vacant land.

23. For these reasons the PTUA proposed that a demand management strategy should be implemented which would provide a new rail link integrated with the existing rail system. It would provide high quality service and aim to achieve a utilisation of 50% of total airport travel. The PTUA costed the rail link between $35-50m according to the route chosen.

24. In response, the FAC indicated that the need to provide additional carparking at Melbourne airport is urgent and is based on the present pattern of travel to the airport.

25. The Victorian Government advised the Committee that the wider question of transport system integration is being taken incrementally. The first step, involving the expansion of the Tullamarine Freeway to four lanes in both directions, will have express bus and taxi lanes provided between Flemington Road and Bulla Road. This will provide improvements to areas of the freeway which are congested at times.

26. The Victorian Government is also committed to protecting options for an eventual rail link from the CBD to the airport and remains receptive to any feasible and viable private sector proposal to provide rail links to the airport on the basis of competitive criteria and bidding. The Victorian Government believes cost of providing a rail link to the airport would be much higher than estimated by the PTUA.

27. The Victorian Government also pointed out that access to the airport from the wider metropolitan catchment is vitally important; only 15-20% of traffic from the airport is to the CBD, and the majority of traffic is from the wider metropolitan area and other parts of the state. Commercially operated buses operate from the airport to the CBD every half hour and to the metropolitan area.



28. Carpark user profiles indicate that the majority of users of the carpark are members of the public either meeting or farewelling passengers. The FAC indicated that 50% of vehicles are parked for 1.5 hours, 60% for up to 2 hours and 85-90% for less than three hours. This would reinforce the view that the primary purpose of travel to and from the airport involves members of the public meeting or farewelling passengers.

29. The FAC indicated that easements for rail entering the airport site have been identified and assured the Committee that it would ensure that no structures are built on the easements. The intention would be that any railway station constructed to serve the airport would be underground, between the road and the carpark.

### Committee's Conclusions

**30. Current short-term carparking facilities and arrangements at Melbourne Airport are inadequate.**

**31. There is a need to upgrade short-term carparking to overcome current shortages and provide for future growth.**

**32. Whilst in theory improved public transport to the airport from the Melbourne Central Business District may reduce the demand for short-term parking, carpark user profiles suggest that the majority of motor vehicles requiring parking emanate from the wider metropolitan area and other parts of the State.**

**33. Options for a longer term future rail link to the Central Business District have been identified and easements are being protected.**

## THE PROPOSAL

34. It is proposed to construct a four level carpark with an initial capacity for 3200 bays linked to the terminal by three pedestrian bridges.

### Description

35. The four levels will be at grade (ground), two above ground covered levels and an open roof level. Access and egress will be by spiral ramps which will be outside the main structure. Movement within the facility will be by internal ramps. The FAC advised the Committee that special attention

will be given to the connection of the access and exit points to the road system. There will also be a full height void at the centre of the carpark to assist with lighting and ventilation.

36. The FAC advised the Committee that dedicated entry and exit points have been carefully chosen to ensure smooth and safe operation. Lines of sight have been maximised and the need for sudden or unexpected actions required of drivers minimised. The FAC has adopted the principle of clear and early signage to ensure and contribute towards the smooth flow of traffic streams.

37. The Committee questioned the FAC about the aesthetic impact of the carpark building on the grounds that very few, if any, carparking structures in Australia or internationally could be regarded as pleasing to the eye. In evidence the FAC indicated that the external facade finishes will compromise concrete spandrel and walls featuring aluminium cladding to the front. The other three elevations will be 700mm high concrete spandrels and a 300mm high galvanised metal tubular and plate balustrade. Matching balustrade and crash rails will surround the initial ramps and open light well.

38. At the public hearing the FAC stated the intention to sublimate the mass of the structure by the provision of appropriate landscaping. The Victorian Government indicated support for the architectural concept; the setback and landscaping will provide a pleasing aspect to the extent possible with a carpark facility.

**Plans and construction details**

39. Plans and prespectives are at Appendix B and construction details are at Appendix C.

**Access to and from terminal**

40. Access to and from the terminal will be at ground level and by a covered walkway linking the third level of the carpark. The FAC envisage that customers parking on the second level would proceed to the ground level by stairs or lifts. Similarly, customers parking on fourth level would proceed to the third level. The FAC indicated that the design gives particular attention to the terminal ends of the walkways where they emerge onto the roadway. It is intended to provide a safe environment for pedestrians by widening each walkway at the elevated road end to provide



a refuge adjacent to the pedestrian crossing. The walkways will be glazed on both sides to allow clear vision of the roadway. Physical barriers will be provided to prevent pedestrians stepping onto the roadway without warning.

41. Qantas raised a number of matters concerning the design and the location of the proposed walkways. The Committee believes the location of the walkway linking the carpark with sections of the terminal occupied by Qantas will need to be discussed with the FAC in more detail.

42. Qantas is the principal user of Melbourne Airport and carries about 50% of all domestic passengers and the majority of international passengers. Qantas holds a long-term lease for the northern (domestic) end of the terminal complex and is the principal occupant and user of the (central) international terminal area. Qantas has undertaken significant refurbishment of leased areas during the past years and is about to embark on a major expansion program of the domestic terminal.

43. Qantas believes that the width of walkways should be determined by peak passenger flow. The FAC acknowledged this and will not make a final decision on the dimensions until more information on pedestrian traffic is available

44. Qantas also believes that for the terminal to be a successful operation, it is necessary for the covered walkways to be mechanical. The FAC advised that the design brief has a requirement allowing for the prospective installation of moving walkways, but the current cost plan provides no allowance for their installation in the first instance. The Committee believes this is most unfortunate. The FAC stated in answer to questions concerning international standards applying to walking distances from carparks to terminals, that passenger terminals are generally designed to provide for minimal walking distances. The Committee notes that in evidence the FAC stated that as a result of further value management exercises there may be scope to reduce the cost by $5m. That being the case, the Committee believes there would be considerable benefit to the travelling and non-travelling public for this amount to be spent on moving walkways, provided this is practical. In evidence the FAC stated:

> The Corporation's customers come from a wide cross-section of the community many of whom expect and indeed demand a high level of service in all aspects of their interaction with the airport. The

> Corporation aims at world's best practice by providing all facilities expected by its customers and providing them at an optimum level of performance.[1]

**Committee's Recommendation**

**45. The Federal Airports Corporation should consider the provision of moving walkways in the links between the carpark and the terminal.**

46. Pedestrian movement within the carpark will be by means of designated walkways, stairs, and six lifts. At ground level, access to and from the terminal building will be by pedestrian crossings.

47. The facility will also provide for rental cars and some small/medium buses on the ground floor.

**Site and future hotel**

48. The site proposed for the carpark is within the current short-term carpark site and is close to the terminal complex and is shown on the Melbourne Airport master plan as a carpark.

49. The Victorian Government advised the Committee that a terminal area precinct study concluded that short-term carparking should be accommodated by the development of a multi-level carpark on the proposed site. This was seen by the study as being an operationally effective location which would be cost-effective and provide an appropriate level of service to passengers and visitors. The Victorian Government has pressed the FAC for a number of years to proceed with the development on the proposed site.

50. The total area of the site is 58 785m$^2$ and includes space for future expansion of the carpark to the east and for a possible hotel development on the western (terminal) side. The proposed carpark will cover 33 397m$^2$, or 57% of the total site.

51. Ansett indicated that a slightly different layout from the FAC's proposal would be preferable in order to better accord with long-term plans

[1]Transcript, p. 5.



for the terminal precinct. The FAC advised the Committee that during discussions Ansett put forward a suggestion that the carpark should be located further to the south, closer to proposed future extensions to the terminal. The FAC believes that this suggestion overlooks the fact that the current carpark proposal is intended to cater for traffic in the medium term. No increases in terminal capacity are anticipated during this period.

52. The Committee questioned if the FAC had undertaken geotechnical surveys the results of which would be used in the design of foundations. The FAC advised the Committee that boreholes had revealed the presence of basalt floaters at a depth of 2-3m and their presence was taken into account in assessing the cost of footings. The FAC proposes to provide strip and pad footings or bored piles and ground beams as required.

53. Whilst not a part of the proposal examined by the Committee, the siting of the carpark presupposes that a hotel will eventually be constructed at the front (terminal) side. The inclusion of a hotel was a significant component of the earlier development proposal which was to be funded by a private developer. The FAC proposes to proceed with the original carpark development without the hotel. The Committee raised with the FAC a number of issues concerning the suitability of the location of the hotel at the proposed site, the means by which carpark customers will gain access to the terminal from the carpark, and if, indeed, there will be a demand for hotel accommodation in close proximity to the terminal.

54. The hotel site is 54m wide and extends for most of the front of the carpark. It is 56m from the leading edge of the terminal development. The FAC envisages that when the hotel is constructed, the walkways linking the carpark with the terminal will be truncated, emerging out of the hotel. The FAC indicated that when proceeding with the selection of developers for the original proposal, the four development companies that were short-listed were invited to provide detailed proposals for the development of a carpark, hotel and office park. The FAC advised the Committee that the developers had discussions with hotel operators and potential hotel owners. Three out of four of the developers identified the preferred site for a hotel to be adjacent to the terminal to maximise the opportunity for the walk-up business from the terminal. The FAC also advised the Committee that the fourth developer took the opposite view, suggesting that the hotel be located at the rear of the carpark.

55. The FAC also believes that locating a hotel in front of the carpark would provide improved aesthetics which would not apply if the carpark building directly faced the terminal complex.

56. In terms of likely demand for hotel accommodation at the airport, the Committee was advised that the Airport Travelodge, which is located some distance from the terminal, has a high occupancy rate. The FAC believes there will be demand for hotel accommodation on the airport site beyond levels which can be provided by the Travelodge.

57. A number of matters of concern remain. First, the means by which the carpark customers will gain access to the terminal. The FAC indicated that access will be through the hotel and along truncated walkways. The Committee believes that unless clear lines of traffic flow are established, this arrangement will lead to confusion and provides scope for considerable disruption.

58. Secondly, disruption to the efficient operation of the terminal during construction of the carpark, and subsequently, the hotel. The Committee is aware that the terminal complex is undergoing substantial redevelopment which has been proceeding for several years and will continue. Some disruption and inconvenience to airport users is inevitable, especially during peak periods, although the FAC has reduced the impact to some extent. During construction of the carpark, further disruption and inconvenience will occur and this will be repeated when the hotel is under construction.

59. The Committee is aware that by locating the hotel at the rear of the carpark, business opportunities may be missed and the scope for extending the carpark in that direction may be compromised. It should be mentioned that in evidence the FAC stated the cost of strengthening the foundations of the carpark to allow for the construction of additional floors is being investigated. The Committee believes that the provision of additional floors would provide scope for expansion.

**Committee's Recommendation**

**60. The Federal Airports Corporation should re-examine the arrangement of carpark and future hotel sites to satisfy itself that the proposed sites are the best locations for both.**



**Offices and loading dock**

61. The police office will provide an improved facility for the Victoria Police, which is currently located in the international terminal. The FAC believes that the presence of police within the building will assist with security.

62. Office space to be provided for car rental companies will present the opportunity for 200m$^2$ of space in the terminal to be freed up.

63. The loading dock will be designed to take six trucks up to 11 metres in length. The FAC believes that the provision of this facility will substantially reduce the need for delivery vehicles to use the airside of the terminal which causes congestion and security difficulties. The loading dock area will include 1000m$^2$ of goods storage area.

64. A tunnel, wide enough for two trolleys to pass, will connect the loading dock to a goods lift in the basement of the terminal. The shaft for the lift has already been extended as part of the terminal expansion works.

65. Qantas raised a number of concerns about the loading dock, storage area and the tunnel. The FAC advised the Committee that the need for a loading dock has arisen from current unsatisfactory arrangements. The bulk of goods deliveries to the terminal complex is undertaken by goods vehicles traversing the airside and delivering to a secure loading docks. The FAC has been under pressure from the Department of Transport about security risks which are posed by significant numbers of trucks traversing the airside. The domestic terminals, at both ends of the terminal complex, have sufficient space for expansion as part of further terminal development, to develop landside loading docks if and when the need arises. The international terminal is located between the two domestic terminals and the FAC believes the opportunity to develop a landside loading dock to service the terminal is limited. The FAC concluded therefore that the only solution is to building a loading dock in the area of the carpark and connecting it to the terminal by a tunnel.

66. Qantas indicated it would wish to continue deliveries to the airside of the terminal to be free of any encumbrances. The FAC acknowledged this, but pointed out that although these deliveries will be continued for the time being, increasing stringency of security requirement imposed by the

Department of Transport on airside deliveries is gradually making this option less attractive.

67. Qantas questioned the level of security to be provided. The FAC indicated the goods delivery tunnel requires a level of security which would keep out the general public. A parallel tunnel, designed to facilitate the return of baggage trolleys from the carpark to the baggage collection hall (a secure area) will be provided. The FAC acknowledged that a high level of security will need to be maintained at this location and has consulted agencies responsible for security

68. The possibility of trucks and carpark traffic queuing to enter the carpark building was also raised. The FAC indicated that every care will be taken in the design and operation of the two facilities to ensure that conflict does not occur.

69. The FAC does not propose to levy charges for the use of the loading dock or the tunnel. Space within the storage area will be available for rent

70. Qantas also raised the question of the access point within the terminal disadvantaging one or other airline and their concessionaires. The loading dock is intended for use by concessionaires in the International Terminal. Its location is not relevant to domestic airlines or their concessionaires. The opportunity to build a dock at the Qantas end of the terminal has been subsumed by the existence of Customs facilities.

**Committee's Recommendation**

**71. During the development of detailed designs the Federal Airports Corporation should continue discussions with Qantas and other terminal users about the functionality of the loading dock and tunnel.**

**Ventilation**

72. The Committee questioned the FAC about measures to be adopted to provide adequate ventilation in the carpark. The FAC indicated some design work on the most appropriate measures had been undertaken. The FAC believes ventilation will be provided by the provision of a large central void. The Committee was assured that design engineers have assessed that the provision of the void will meet all prevailing standards and codes.



**Security**

73. The level of security to be provided was questioned by the Committee. The FAC emphasised its determination to provide a well-lit carpark which is possible to keep under constant surveillance. The Committee was assured that considerable attention will be given to lighting and to ensuring that there will be no vulnerable areas. The FAC believes that the location of the Victoria police office in the front of the carpark will provide a measure of deterrence and security. Qantas indicated a preference for the prime police presence remaining in the terminal to provide a visual presence and a rapid response capability. The FAC believes the relocation will make a marginal difference to response times which are outweighed by the more obvious presence at the front of the carpark instead of on the second floor of the terminal.

74. The FAC advised that the following security measures will be provided:

- surveillance of critical areas by remote cameras with video displays to be located in the offices of the car park operator and the FAC's security control centre
- foot-operated personal duress alarms in exit cashier booths linked to the carpark manager's office and the police office.
- an intercom system connecting each ticketing machine and exit cashier booths with the carpark managers office
- alarm on the safe used to store money, linked to the carpark managers office and police office.

**Private versus commercial development and privatisation**

75. Initial planning was for a carpark to be included in a larger project including a hotel and major office accommodation to be undertaken by a private developer. The FAC called for expressions of interest and Folkstone Limited was selected after a competitive process as the preferred developer. The FAC briefed the Committee on the proposed private development in February 1994 when it was ascertained that if the project proceeded as a private investment project it would not need to be referred to the Committee. Since then, and despite intensive efforts by the developer, there

has been little interest shown by investors in the development of the carpark or hotel. As a result, the FAC Board decided to proceed with the project and finance it.

76. The Committee further questioned the FAC about the decision to self-fund, and thereby own, the proposed facility. The FAC prefers to develop and retain ownership and control of carparks. The earlier decision to proceed with private sector developer was made at a time when the FAC perceived an inability to attract the necessary investment funds. This was due in large measure to a number of other, high priority projects underway or about to commence. This shortage of investment funds no longer applies.

77. The Committee also questioned the wisdom of the FAC proceeding with a large capital investment project during public discussion of a possible privatisation of the assets of the Authority. The FAC believes when completed, the carpark will be part of the airport infrastructure and will generate its own revenue stream. If privatisation occurs before the carpark is completed, it would be the responsibility of the new owner to complete the project. The same could be said of any other terminal development work underway at the time of privatisation.

**Arrangements during construction**

78. The Committee questioned the FAC about measures to be implemented during the construction period which will avoid undue disruption to continued operation of the short-stay carpark. The work will be undertaken in stages to ensure that at least half of the carpark will remain in use during construction. The FAC will provide a temporary overflow area comprising 500 parking bays near the long-term carpark.

**Fire safety**

79. The FAC advised that construction of the facility will generally be to the requirements of the Building Code of Australia and relevant Australian Standards. The Commonwealth Fire Board (CFB) raised the question of the possibility that some deviations from the BCA may be intended or planned and made the following suggestions:

- the facility will be a very large building and has the potential for very long escape distances. The bridges linking the carpark with the terminal are not normally associated with multi-level carparks described in the BCA.

  The FAC confirmed that there may be some deviations from the BCA and that an independent consultant has been engaged to advise on these deviations and the most appropriate course to be adopted in each case.

  The carpark bridges will not be primary fire evacuation routes although the provision of fire safety features in them will require particular attention.

  If a hotel were to be constructed at the front (terminal side) of the carpark, the FAC believes the location of exits and stairs will require careful consideration. The FAC believes the hotel would have the effect of shortening the elevated links thus making their evacuation easier.

- more details should be provided of emergency lighting and power sources.

  The FAC indicated that in the event of a mains power failure, emergency lighting will be available from the airport diesel generator back-up system.

- fire separation of the loading dock/stores area from the carpark would be prudent in limiting liability in the event of a fire in one or other area.

  The FAC indicated that measures designed to provide fire separation between the carpark and loading dock have not been specified but will be considered during a value management review of the project.

- the FAC should provide details of the processes to be followed for approvals, certification and supervision and the involvement of fire protection specialists; procedures for the acceptance of any proposed deviations from the requirements of the BCA would be particularly relevant to this.

The FAC advised that the design will be certified by a recognised fire protection consultant and construction will be supervised by the construction manager. The FAC will consult the public fire service on the design but believes the fire service has no role in the construction or approval processes.

80. The Commonwealth Fire Board also suggested that the Melbourne Metropolitan Fire Brigade should be consulted, particularly in regard to operational requirements for access and water supply.

**Melbourne Metropolitan Fire Brigades (MMFB)**

81. The MMFB raised with the Committee the extent to which it had been consulted during the development of the proposal. The MMFB was first made aware of the proposal by the CFB on 19 January. To its credit the FAC held discussions with the MMFB on 1 February at which issues of consultation and the building certification process were considered. The FAC assured the Committee that it will consult the MMFB throughout the design and construction phases of the project. The FAC assured the Committee that the building will be constructed as far as is reasonably practical in accordance with the BCA. Where, for whatever reason, the design does not conform to the requirements of the BCA, the FAC will seek a dispensation from the Building Appeals Board.

82. The question of the acceptability of modifications is clearly at issue and is a matter of concern to the MMFB. Under the new Victorian Building Act, which came into force in July 1994, building permits and certificates of occupancy can be approved by local councils or a private building surveyor. Modifications to regulatory requirements for fire fighting equipment are considered and granted by the Building Appeals Board and the MMFB is consulted as part of this process. The point which the MMFB made to the Committee is that it would be more practical for the FAC to have discussions with the MMFB before making an application for a modification. The MMFB believes that any problems concerning fire safety can be solved in these discussions and any modifications could then be submitted to the Building Appeals Board with the support of the fire services. The Committee believes there is considerable merit in the FAC adopting this approach.



**Committee's Recommendation**

**83. During design development the Federal Airports Corporation should consult the Melbourne Metropolitan Fire Brigades concerning modifications to State regulatory fire safety requirements before they are submitted to the Building Appeals Board for approval.**

**Operation of the carpark**

84. The FAC will own the carpark but its operation will be under a management contract to a specialised carpark operator. The current operator is Wilson Parking which has been managing the carpark since April 1986.

85. The current method of payment, known as lane cashiering, involves customers paying a cashier for their parking as they leave. The proposed multi-level carpark will include the replacement of current carpark access control equipment with new technology. The new equipment will include improved management systems, the "pay and walk" method of payment, as well as lane cashiering. Pay and walk requires customers to pay for their parking at conveniently located pay stations prior to collecting their cars. Customers are given a validated ticket with a pre-set time to exit the carpark. If this time is exceeded, customers may need to pay an additional fee.

86. The improved management system will allow for the introduction of corporate accounts which will provide regular or major customers with long life tickets that are invoiced in arrears or prepaid. The FAC believes these changes will improve the level of service by assisting customers to exit from the carpark.

## ENVIRONMENTAL IMPACT

**Impact assessment**

87. The FAC advised that the environmental impact of the proposal was assessed as not significant. The proposal was therefore not covered by the *Environment Protection (Impact of Proposals) Act 1974.* In response to a suggestion made by the PTUA that the proposal should be subjected to an environmental impact study, the FAC submitted that the proposed carpark will meet a realised demand. The FAC therefore does not believe it has a

role in evaluating the environmental effects of car travel compared with public transport. The Committee agrees with this view.

88. The Environment Protection Agency noted that, although the proposal was not referred to it under the Environment Protection (Impact of Proposals) Act, from the information provided to it, the proposal will not have a significant impact on the environment.

89. Under the proposal the FAC believes there will be improved traffic flows and reduced congestion in the vicinity of the terminal. Runoff from the completed structure will be passed through sediment and oil traps before it is discharged into the drains of the Melbourne Metropolitan Water Authority.

90. The Committee questioned the FAC about measures to be used to treat any pollutants, such as hydrocarbons, generated by use of the carpark. The FAC advised that floors will be drained and effluent piped through the drainage system and separator pits before being discharged into the wider drainage system.

### Construction impact

91. During the construction phase there will be a loss of some trees. This will be more than compensated by increased plantings at the completion of the project as part of the landscaping. The impact of dust and noise during construction will be limited by watering and screening. Sediment contained in runoff from the construction site will be arrested before the runoff is discharged into stormwater drains.

### Heritage and conservation

92. The Australian Heritage Commission (AHC) indicated that the only nearby place listed on the Register of the National Estate is the Radar Hill Grey Box forest. It is more than 2km from the site and the AHC considers that its heritage values will be unaffected by construction of the new carpark.

93. The Australian Nature Conservation Agency advised the Committee that the development is not likely to have an impact on threatened species and hence the Endangered Species Protection Act 1992 does not apply.



### Energy efficiency

94. The FAC acknowledged that energy efficiency is an important factor to be taken into account in the design of any building and will therefore be given due prominence. The project is at the concept stage and the question of energy-efficient lighting controls and other energy conservation measures will be addressed at the detailed design stage.

## CONSULTATION

95. The wider development of the airport was the subject of an airport development strategy study undertaken jointly by the FAC and the Victorian Government in December 1990. This strategy set the basic framework of master planning and was followed by the terminal and precinct study. This study was undertaken in consultation with all stakeholders including the airlines, ground transport service providers and municipalities.

96. The FAC advised the Committee that the major tenants of the terminal, Ansett and Qantas were advised of the general form of the carpark concept. The FAC proposed further consultation with the airlines and other interested parties during design development.

97. The Department of Transport was consulted regarding the loading dock facility, especially in relation to security. The FAC advised the Committee that the Department has indicated its agreement with the proposal.

98. Hume City Council advised the Committee that it supports the proposal on the basis of a demonstrable need and consistency with the long term forward development for the airport terminal precinct. The Council's support for the project is on the basis that:

- options for public and freight access will be maintained
- the FAC consult the Council in the detailed planning, particularly on urban design and traffic access issues.

99. Wilson Parking Pty Ltd, which manages the short-term and long-term carparks advised the Committee that it endorses the concept of a 3200 bay carpark being provided adjacent to the terminal and recommended that construction commence as soon as possible.

## CONSTRUCTION PROGRAM

100. At the time of the public hearing the FAC expected that construction could commence in July 1995 with occupation of the first stage by the end of January 1996. The second stage is expected to be completed by April 1997.

## COST AND FINANCING

### Cost, fees and contingencies

101. The preliminary cost estimate for the project is $55m. The proposal was the subject of a value management study.

102. The Committee questioned the relatively large percentage of the project budget allocated to fees and contingencies. The FAC indicated that contingencies for large projects for which most of the design work has been completed would be low. However, in this case, where much of the detailed design work remains to be undertaken it is normal practice to provide in the budget for allowances and contingencies which may be required.

### Financing

103. The FAC propose to finance the proposal by way of incremental revenue from increased demand, increased services, increased tariffs and a reduction in expenses. The tariffs to be charged at the commissioning of the facility will be based on comparisons with parking tariffs applying in the Melbourne CBD and fringe area for short-term parking and a comparison with car parking areas around the airport for longer stays. Despite the greatly improved level of service which will be provided, it is expected that tariffs will remain in the lower 25 percentile of the rates charged in these comparable areas.

104. The FAC advised the Committee that its contracts include provisions for the contractor to provide certification that all wages and payments due to subcontractors have been made prior to any payment being made to the contractor by the FAC.



### Committee's Conclusion

**105. The Committee supports the application by the Federal Airports Corporation of strategies designed to protect subcontractors undertaking work on the project to ensure that payments are made on time and in accordance with agreed prices.**

### Committee's Recommendation

**106. The Committee recommends the construction of a multi-level carpark for the Federal Airports Corporation at Melbourne Airport at an estimated cost of $55 million.**

## CONCLUSIONS AND RECOMMENDATIONS

107. The Committee's conclusions and recommendations and the paragraph in the report to which area refers are set out below:

| | | Paragraph |
|---|---|---|
| 1. | Current short-term carparking facilities and arrangements at Melbourne Airport are inadequate. | 30 |
| 2. | There is a need to upgrade short-term carparking to overcome current shortages and provide for future growth. | 31 |
| 3. | Whilst in theory improved public transport to the airport from the Melbourne Central Business District may reduce the demand for short-term parking, carpark user profiles suggest that the majority of motor vehicles requiring parking emanate from the wider metropolitan area and other parts of the State. | 32 |
| 4. | Options for a longer term future rail link to the Central Business District have been identified and easements are being protected. | 33 |
| 5. | The Federal Airports Corporation should consider the provision of moving walkways in the links between the carpark and the terminal. | 45 |
| 6. | The Federal Airports Corporation should re-examine the arrangement of carpark and future hotel sites to satisfy itself that the proposed sites are the best locations for both. | 60 |
| 7. | During the development of detailed designs the Federal Airports Corporation should continue discussions with Qantas and other terminal users about the functionality of the loading dock and tunnel. | 71 |



| | | |
|---|---|---|
| 8. | During design development the Federal Airports Corporation should consult the Melbourne Metropolitan Fire Brigades concerning modifications to State regulatory fire safety requirements before they are submitted to the Building Appeals Board for approval. | 83 |
| 9. | The Committee supports the application by the Federal Airports Corporation of strategies designed to protect subcontractors undertaking work on the project to ensure that payments are made on time and in accordance with agreed prices. | 105 |
| 7. | The Committee recommends the construction of a multi-level carpark for the Federal Airports Corporation at Melbourne Airport at an estimated cost of $55 million. | 106 |

Colin Hollis MP
Chair

11 May 1995

## WITNESSES

**BROCCHI**, Mr Peter, Airport Manager, Melbourne Airport, Qantas Administration, Domestic Terminal, Melbourne Airport, Tullamarine, Vic.

**CARLTON**, Mr Albert Rostyn, Chief Engineer, Construction, Federal Airports Corporation, 2A Lord Street, Botany, NSW.

**CLAMPETT**, Mr John Christopher, Senior Station Officer, Melbourne Metropolitan Fire Brigades Board, 619 Victoria Street, Abbotsford, Vic.

**CULLINAN**, Mr Murray Francis, Assistant Secretary, Strategic Planning, Department of Transport, 589 Collins Place, Melbourne, Vic.

**CULLINAN**, Mr Tim Mark, Manager Property, Melbourne Airport, Federal Airports Corporation, Cnr Grants and Service Roads, Tullamarine, Vic.

**FORD**, Mr Neville, Director, Neville Ford Associates, 22 Westernfield Drive, Clayton, Vic.

**HERRON**, Mr Sydney Bruce, Project Director, Aviation, Department of Business and Employment, 228 Victoria Parade, East Melbourne, Vic.

**LADE**, Mr John William, General Manager, Technical and Construction, Federal Airports Corporation, 2A Lord Street, Botany, NSW.

**MEES**, Mr Paul Andrew, President, Public Transport Users Association, 247 Flinders Lane, Melbourne, Vic.

**RICHARDS**, Mr John Anthony, Manager, Strategic Planning, Airports, Qantas, 203 Coward Street, Mascot, NSW.

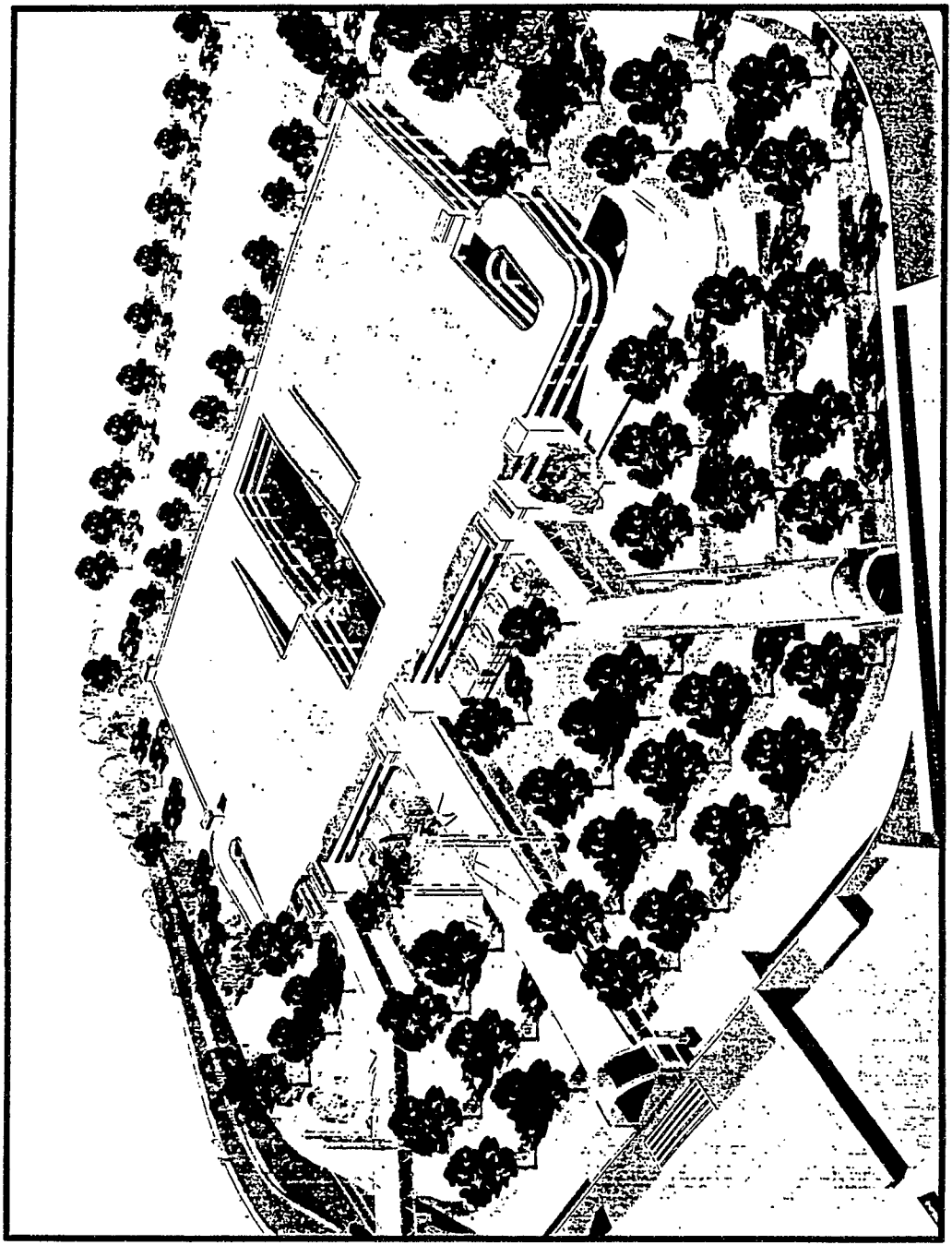
**WRIGHT**, Mr Shane, Inspector, Melbourne Metropolitan Fire Brigades Board, 619 Victoria Street, Abbotsford, Vic.

**YOUNG**, Mr Robert John, Manager Commercial, Melbourne Airport, Federal Airports Corporation, Locked Bag 116, Tullamarine, Vic.

APPENDIX B

## PERSPECTIVES AND PLANS

B – 1



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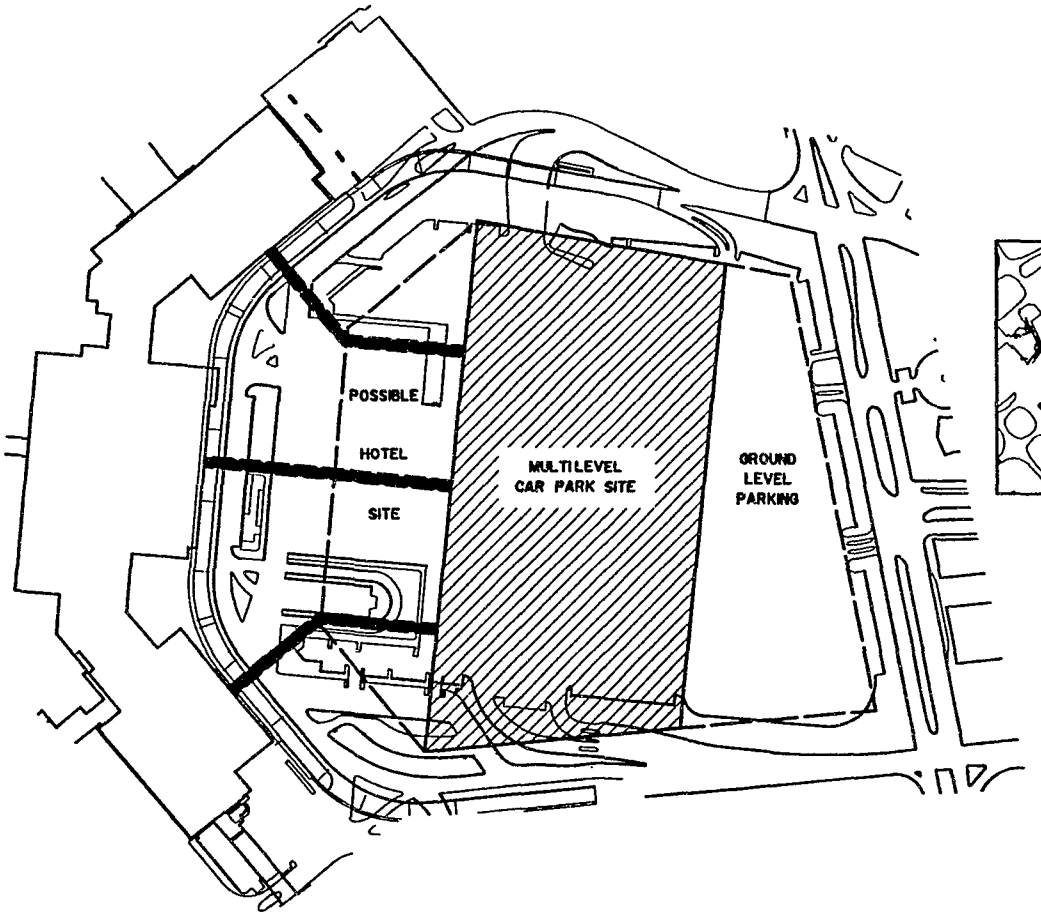
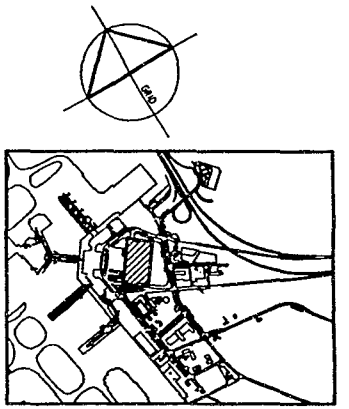
B - 3



LOCALITY PLAN

SCALE 1:30,000

SITE AREA 33,397 SQ M

SCALE 0 100 200 SCALE 1:2000 @ A3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | FJC | | | | | | 060994 | 2 |
| | FJC | PRS | | | | | 010393 | 1 |
| DESIGN | DRN | CHKD | AMENDMENTS | EXAMD | APPD | DESIG | DATE | No. |

# MELBOURNE AIRPORT

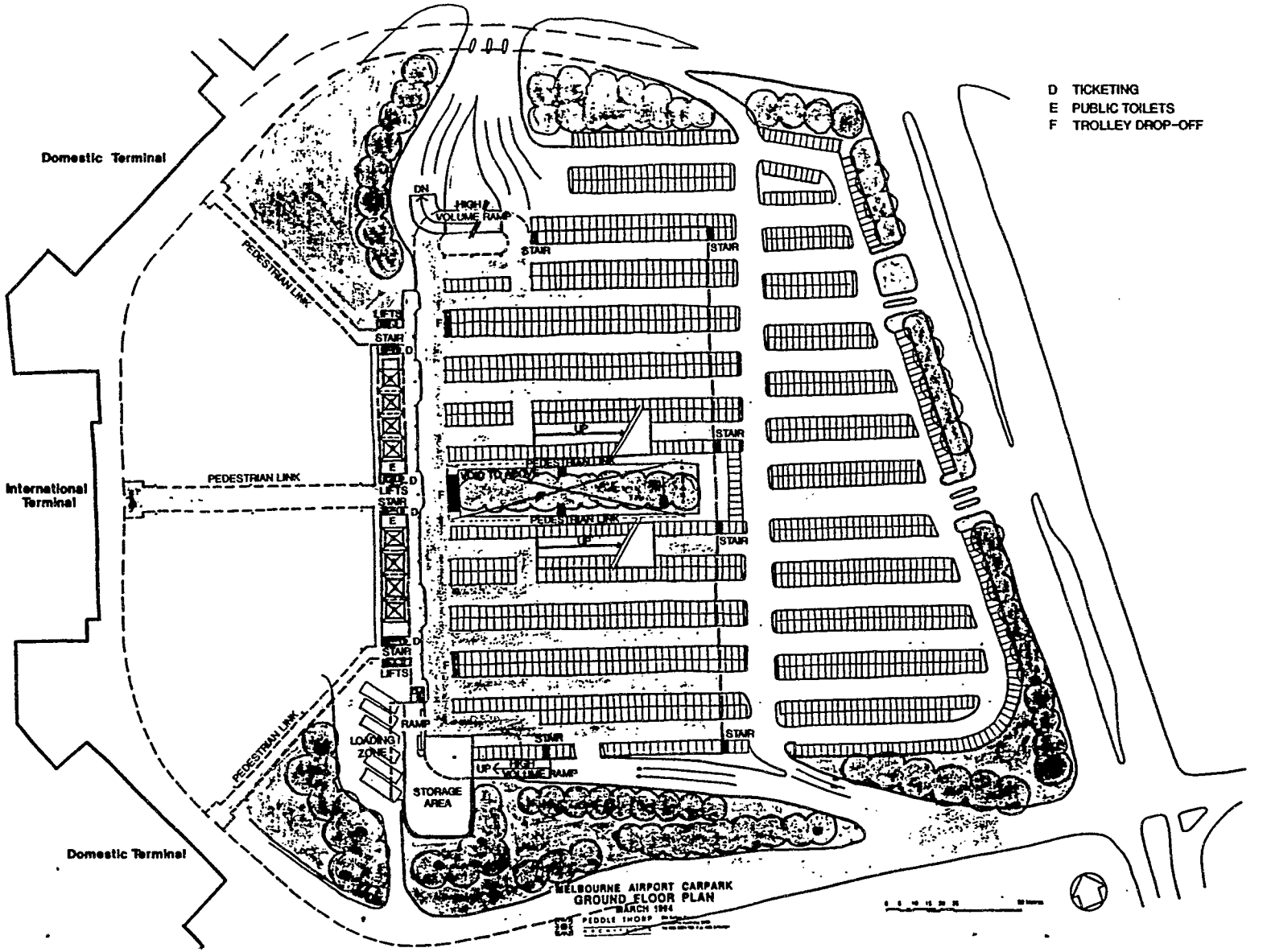
## MULTI-LEVEL CAR PARK

Federal Airports Corporation

DRAWING NO. FMD 5422

SHEET 4 A3

INDEX REF AD/DES/GB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E PUBLIC TOILETS
F TROLLEY DROP-OFF
Domestic Terminal
International Terminal
Domestic Terminal
PEDESTRIAN LINK
PEDESTRIAN LINK
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HIGH VOLUME RAMP
STAIR
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VOID TO ABOVE
RAMP
LOADING ZONE
STORAGE AREA
HIGH VOLUME RAMP
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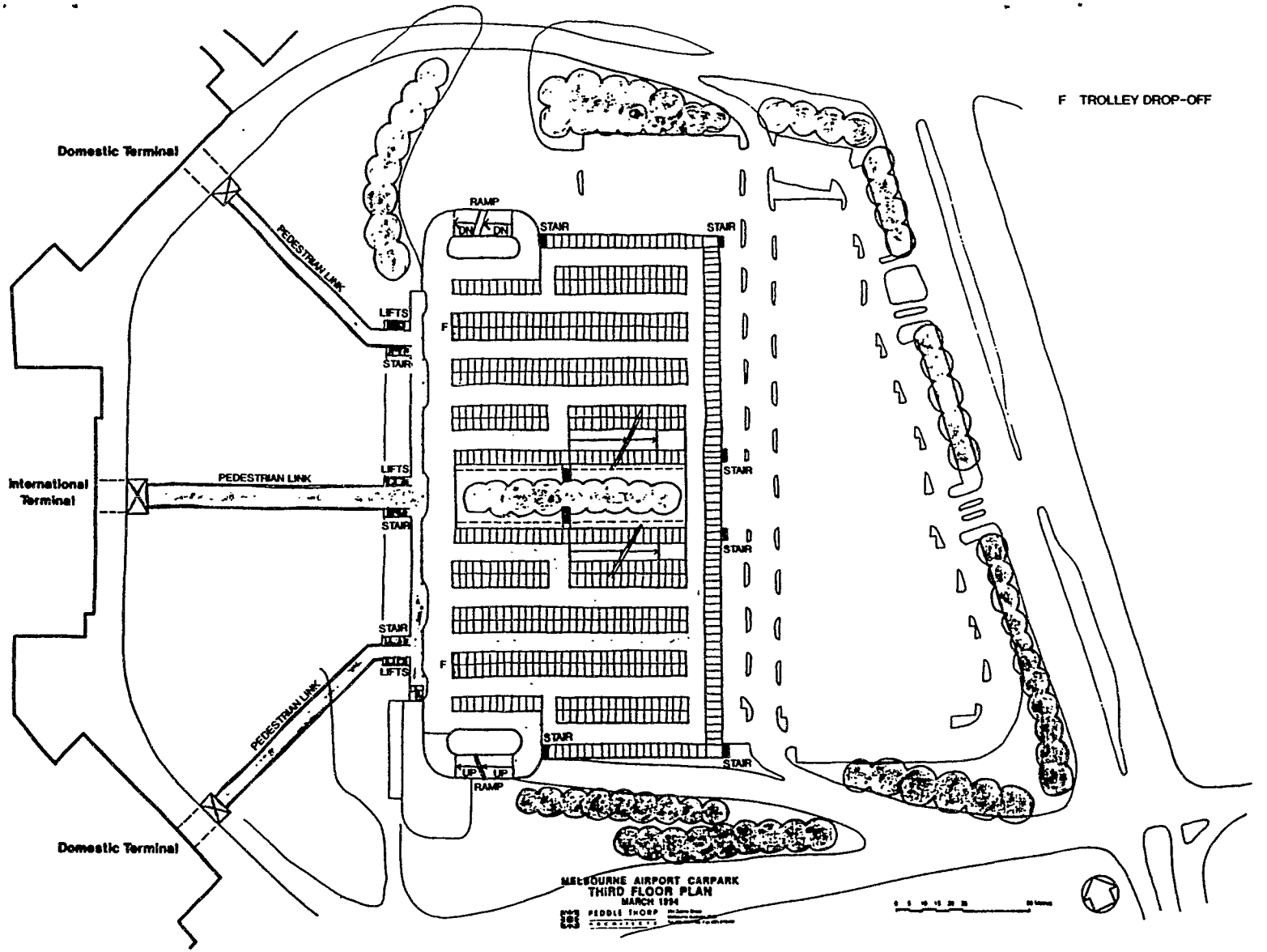
MELBOURNE AIRPORT CARPARK
GROUND FLOOR PLAN
MARCH 1994
PEDDLE THORP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STAIR
UP
UP
RAMP
Domestic Terminal
MELBOURNE AIRPORT CARPARK
THIRD FLOOR PLAN
MARCH 1994
PEDDLE THORP

# CONSTRUCTION DETAILS

## 1. Building configuration

| | |
|---|---|
| Ground floor - graded asphalt undercover | 20 869$m^2$ |
| Suspended decks | 58 665$m^2$ |
| Ground floor - graded asphalt open area | 23 500 $m^2$ (approx) |

## 2. Fire Code Classification

Construction Type A.

## 3. Design floor loadings

3 Kpa - decks

3 Kpa - ramps

## 4. Foundations

Strip and pad footings or bored piles as required and ground beams. Hardstand area to loading dock.

Suspended slabs

Cast in situ post stressed concrete slab or precast pre-stressed slabs with in situ topping monofinish and sealer.

## 5. Frame

Off-form concrete columns integrated with slab system.

## 6. Clearance heights

Ground floor 3.6m, ramps and other floors 2.2m.

7. **Ramps**

Helical high volume and on grade or suspended ramps to decks in complimentary construction to floors.

8. **Stairs**

Concrete stairs and walls with painted metal handrails, metal door frames and solid core doors and paint finish.

9. **Walls**

Minimum upturned or down turned edge elements to create open perimeter with steel crash rails. Off form cast in situ or precast to lift shafts.

10. **Bridge links**

Feature bridge links to three terminal areas with flared waiting area at terminal end.

Exposed steel frame, columns and glazed facade.

Natural ventilation.

Tiled finish to floor.

Colorbond corrugated roofing including gutters and downpipe.

11. **External facade finishes**

To be concrete spandrel and walls with feature aluminium cladding to front elevation facing terminal.

The other three elevations to be 700mm high concrete spandrels and a 300mm high galvanised metal tubular balustrade above. Matching balustrade and crash rails will surround the initial ramps and open light well.

Glass and painted exposed steel to bridge links.

12. **Electrical mains**

3 phase supply

13. **Lighting**

Fluorescent lighting to Australian Standard requirements or better to carpark area.

Security and entry lights to walkways.

Installation of built in conduits for security system.

14. **Vertical transport**

Six elevators with four landing levels per elevator.

15. **Mechanical ventilation**

To lift motor rooms if required and to queuing area on the ground floor of the new building only.

16. **Access control**

Access/egress control and electronic traffic management system.

17. **Signage**

Signage will be provided on Airport Drive to indicate to approaching drivers which lane they should be in for entry to the carpark or the loading dock. Signs will be provided on the entry ramp at each level indicating the existence of vacant spaces on that level. Levels and zones within the carpark will be clearly marked and colour coded. Signs will be provided within the carpark directing customers to stairs, lifts, terminals, trolley dispensers, pay machines and toilets. Tariff details will be prominently displayed at the entry and exit points and at each pay machine. Conditions of use will be displayed at the entry and adjacent to each lift at each level.

## 18. Drainage

Fulgo drainage to roof deck area. External or underslab suspended drains to pits. New RC pipe inground services from pits to existing connection points (pits).

## 19. Siteworks

Carpark lighting to entry ramps.

New landscaping and irrigation system to areas affected by new building.

Rationalisation and alteration to existing landscaping affected by building works. The intention is to retain as much mature landscaping as possible.

Rear carpark to remain substantially unaltered but with approximately 40 new car spaces to the south eastern corner.

## 20. Loading dock

Capacity - 6 bays.

Design vehicle - single unit rigid body pantechnicon truck 11.0m X 2.5m.

Overhead clearance - To be adequate for removal of waste containers.

Services - Separate toilet facilities. Truck exhaust ventilation. Weather protection to dock.