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*Parliamentary Standing Committee on Public Works*

## REPORT

relating to the

# UPGRADING OF MOUNT WELLINGTON BROADCASTING FACILITIES, HOBART

(Eighth Report of 1993)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA  
1993

**The Parliament of the Commonwealth of Australia**  
**Parliamentary Standing Committee on Public Works**

**Report Relating**

**to the**

**Upgrading of Mount Wellington  
broadcasting facilities, Hobart**

**(Eighth Report of 1993)**

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**MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE  
ON PUBLIC WORKS**

(Thirty-First Committee)

Mr Colin Hollis MP (Chairman)  
Senator Paul Henry Calvert (Vice-Chairman)

**Senate**

Senator Bryant Robert Burns  
Senator John Robert Devereux

**House of Representatives**

Mr John Neil Andrew MP  
Mr Raymond Allen Braithwaite MP  
Mr Russell Neville Gorman MP  
Mr Robert George Halverson OBE MP

Committee Secretary: Peter Roberts

Inquiry Secretary: Michael Fetter

Secretarial Support: Annabel Lamb

**COMMONWEALTH OF AUSTRALIA**  
**PUBLIC WORKS COMMITTEE ACT 1969**  
**ORDER UNDER SUBSECTION 18(4)**

I, William George Hayden, Governor-General of the Commonwealth of Australia, acting with the advice of the Federal Executive Council and under subsection 18(4) of the Public Works Committee Act 1969 hereby declare that the public work described in the Schedule be referred to the Parliamentary Standing Committee on Public Works for consideration and report.

**SCHEDULE**

**UPGRADING OF MOUNT WELLINGTON BROADCASTING  
FACILITIES, HOBART**

Signed and sealed with the  
Great Seal of Australia on  
10 August 1993

Bill Hayden  
Governor-General

By His Excellency's Command  
(Signed) Bob McMullan  
Minister for the Arts and  
Administrative Services

## **PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS**

### **UPGRADING OF MOUNT WELLINGTON BROADCASTING FACILITIES, HOBART**

By order on 10 August 1993, His Excellency the Governor-General in Council, under subsection 18 (4) of the *Public Works Committee Act 1969* referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposed upgrading of Mount Wellington broadcasting facilities, Hobart.

#### **THE REFERENCE**

1. The proposal referred to the Committee involves a redevelopment of the Commonwealth owned broadcasting transmission facilities at Mount Wellington in Hobart. The existing transmission tower has been significantly modified during its life and carries additional services for which it was not originally intended. The tower is not capable of further major extension and is nearing the end of its useful life due to structural fatigue.
2. The proposal by the National Transmission Agency (NTA) involves the construction of a tower consisting of a 70 m tapered concrete shaft supporting a 60 m steel frame upon which is mounted several transmission antennas and a protective fibreglass radome. The work also includes alterations and upgrading of the existing transmitter building, demolition of the existing broadcasting tower, ancillary towers and masts, and related site rehabilitation works.
3. The estimated cost of the work when referred to the Committee was \$13m in August 1993 prices. At the time of the public hearing the indicative cost estimate was \$13.095m at September 1993 prices.

#### **THE COMMITTEE'S INVESTIGATION**

4. The Committee received a written submission from the NTA and evidence was taken from its representatives at a public hearing held in Hobart on 23 September 1993.

5. Evidence was also taken from the following organisations:

- . Tasmanian Conservation Trust Incorporated
- . Trinity Projects Pty Ltd

6. A number of other submissions relating to the project were received and are incorporated in the Minutes of Evidence. On 22 September 1993, the Committee inspected the site for the new transmission tower and also the existing transmission facilities on Mount Wellington.

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

## **BACKGROUND**

8. The Mount Wellington proposal is sponsored by the NTA which is a sub-program of the Department of Transport and Communications. The NTA's charter is primarily to plan, establish, operate and maintain broadcasting transmission facilities which enable the delivery to the public of national television and radio services, that is, ABC and SBS television and radio services. The Government requires that, where suitable capacity is available, NTA is to seek to make efficient use of the facilities by allowing commercial broadcasting and radio communications operators to share its facilities at an appropriate rate of return to the Commonwealth.

9. The NTA does not itself establish, operate and maintain the facilities but rather contracts others to provide these services. The primary provider of design services to the NTA is Telecom Australia. Telecom Australia is also contracted to provide the operation and maintenance services for the NTA's network of some 560 transmission facilities throughout Australia. This is an historical relationship which is being opened up to wider competition.

## **THE NEED**

10. Television was introduced to Hobart in 1960, when the first broadcasting facilities were erected on Mount Wellington. The Commonwealth negotiated a 99 year lease with Hobart City Council over a site on Mount Wellington, and constructed the present steel lattice tower



which was originally designed to transmit ABC Television on Very High Frequency (VHF) Channel 2.

11. The Commonwealth tower was modified in 1980, with the addition of steel work to support an additional antenna which enabled the transmission of national and commercial FM radio signals. The FM radio antenna system is now operating beyond its practical design limits, because of the number of services which it is carrying.

12. In 1980, the tower was also modified with the addition of a fibreglass radome to enclose the television antenna array. The radome was required to protect the antennas from damage by ice, which previously had caused significant service disruptions and maintenance problems.

13. There was a further addition to the tower in 1986, when a third antenna was added to enable transmission of SBS Television on Ultra High Frequency (UHF) Channel 28. The UHF antenna arrangement is far from ideal, but was considered to be the only way of bringing SBS television to Hobart using the existing structure.

14. In 1986 the Government announced its television equalisation program. This program was designed to provide communities outside of the east coast capital cities with additional choice in commercial television services.

15. In Tasmania the equalisation program required the introduction of one additional commercial television service. This was to be achieved by allowing Southern Cross Television, which currently transmits only in Northern Tasmania, to extend its signals throughout the State and, similarly to allow Tasmanian Television to extend its signal from Southern Tasmania throughout the State.

16. In Hobart, Southern Cross Television's new transmissions have been allocated to UHF Channel 31 by the Australian Broadcasting Authority which is responsible for the allocation of all radio and television frequencies throughout Australia. This transmission will require additional UHF facilities at Mount Wellington, because the NTA's existing UHF antenna system cannot accommodate any additional service.

17. The building associated with the installation occupies approximately 900m<sup>2</sup> and houses transmitters and associated equipment, emergency power supply equipment, substation, garage, living quarters and plant equipment in the basement. In addition to the major tower and building, various pieces of technical equipment have been established on the site.

18. The tower structure has been significantly modified during its lifetime and it carries facilities for which it was not originally attended. The structure is not capable of further major extension and is nearing the end of its useful life due to structural fatigue.

19. The use of alternative technologies including the use of cable or satellite delivery, and alternative means, including the use of other sites around Hobart, for providing the necessary broadcasting services was considered and discussed extensively during the Environmental Impact Assessment process for the proposal. The conclusion of the assessment, which was widely accepted by groups involved in the consultation process, was that there were no environmentally or socially acceptable alternatives to the proposal to continue to use Mount Wellington as a broadcasting transmission site. The NTA advised the Committee that the technologies currently used in providing free-to-air broadcasting services to the general public are likely to remain the preferred, the cheapest, and the most readily acceptable means of providing these services for the foreseeable future.

20. The Government's announced timetable for the introduction of additional television services in Tasmania called for new transmissions to commence throughout Tasmania at the end of April 1994. However at the public hearing the NTA advised the Committee, that it now expected the project to be completed early in 1995. The delay has resulted from the NTA underestimating the time required to deal with planning procedures. It must also be said that until approached by the Committee, the NTA was unaware of the requirement to refer the project to the Committee in accordance with the requirements of the *Public Works Committee Act 1969*. Because of the delay in completion of the tower, the NTA will install as an interim arrangement, an antenna on the existing tower to allow Southern Cross TV to provide programs in Southern Tasmania.

21. A new tower is required in order to achieve Government policy for the expansion of broadcasting services, to improve the quality of services already provided to the Hobart public by increasing their reliability through overcoming technical difficulties in the existing tower, to improve the safety

of the public and maintenance workers at the site, and to reduce maintenance costs. Construction of the new tower will also provide an opportunity to reduce the environmental impact of transmission facilities on the mountain.

22. The national services transmitted from the existing tower are subject to interruption for periods some ten times longer than equivalent services in other metropolitan areas of Australia. This is a result of faults caused by the poor condition of the tower and the NTA's inability to gain access to the structure in adverse conditions to rectify the faults. In order to bring further broadcasting services to Southern Tasmania and to pre-empt the possible structural failure of the existing tower, a proposal to erect a new structure at the existing site at Mount Wellington was developed. The proposed new tower must accommodate the services currently transmitted from the existing tower:

- . ABC Television
- . SBS Television
- . ABC Fine Music Radio
- . ABC Triple J Radio
- . two commercial FM radio services
- . various radio communication services

23. In addition, it needs to provide capacity for the proposed new television licensee, Southern Cross TV, and for additional FM radio services. NTA has also allowed capacity for all foreseeable broadcasting and radiocommunications needs.

24. Prior to the project being referred to the Committee consideration was also given to providing capacity for the existing Hobart commercial television licensee, Tasmanian Television (Tas TV), to be accommodated on the tower on the existing VHF Channel 6. This would have required a tower 151 m in height compared to the NTA proposal of 130 m in height and an additional cost of approximately \$2m. However, Tas TV has not agreed to move from its existing facility on Mount Wellington and was not prepared to give any commitment to using the VHF capacity if such additional

capacity was to be included in the new tower. (This matter is discussed further at paragraphs 31-36).

25. It is the NTA's intention to deliver the existing and new services to the residents of Hobart with a level of reliability equivalent to similar services provided in other metropolitan area of Australia, by providing for all-weather access, with the minimum cost to the Government and the public, and in an environmentally responsible manner.

### **Committee's Conclusions**

26. There is a need for the upgrading of broadcasting facilities on Mount Wellington to replace the present inadequate facility which is not capable of further major extension and is nearing the end of its useful life due to structural fatigue.

27. The upgrading of broadcasting facilities on Mount Wellington will enable an additional commercial television service to be provided in Southern Tasmania in accordance with the Government's television equalisation program.

28. The Committee is satisfied that there is no environmentally or socially acceptable alternatives to the continued use of Mount Wellington as a broadcasting transmission site.

### **THE PROPOSAL**

29. The proposed tower will be located in the western corner of the existing Commonwealth site to allow cross-over of transmission, that is, commissioning of the new tower before demolition of the existing tower.

30. The NTA's objectives for the proposal are to:

- . maintain the ability to transmit existing national and commercial broadcasting services to residents of Hobart and Southern Tasmania
- . increase the capacity of the facility in order to allow the transmission of additional broadcasting services

- . improve the reliability of transmission of existing and future broadcasting services
- . improve access to facilities on the tower, to allow the repair and maintenance of antennas and associated feeders in the difficult weather conditions which prevail on Mount Wellington

### **Tasmanian Television (Tas TV)**

31. During the inquiry it became clear to the Committee that a desirable objective is the consolidation of all broadcasting facilities on Mount Wellington into one tower. At issue is the ability to remove an existing transmission facility located on Mount Wellington which is owned and operated by Tas TV, the local commercial television licensee. The NTA advised the Committee that the management of Tas TV has consistently and repeatedly stated that they have no plans to share the proposed new NTA facility. Tas TV has a lease over its existing site until the year 2057 and has stated that it intends to continue to use its own facility for the indefinite future. While the NTA agrees that the long terms goal of one transmission facility on Mount Wellington is desirable, it advised the Committee that in its opinion it had done everything possible to reach a satisfactory solution to this issue. The NTA believes that in the longer term the proposed new facility will adequately cater for all of Hobart's future broadcasting needs, and has ample capacity to accommodate the transmission of Tas TV, should it choose to share the new facility at some time in the future. While provision was not made on the NTA's tower proposal as referred to the Committee for Tas TV's present VHF channel, provision was made to accommodate it on a UHF channel.

32. The NTA believes that the provision of the additional 21 m of tower column space needed solely to provide VHF capacity for Tas TV's existing channel, at a cost to the Commonwealth of approximately \$2m, by no means guarantees that the company would decide to utilise that capacity. The NTA emphasised that Tas TV has stated that because of the cost to the company in transferring its facilities it would not propose to move to the VHF facilities on the new tower even if they were provided.

33. The NTA does not believe it is putting "unreasonable financial impediments" in the way of Tas TV moving to the new tower. The NTA pointed out that the Government would expect the cost of facilities provided for the use of commercial licensees to be recovered in fees charged on an

annual basis. However, it pointed out that an immediate move by Tas TV to use the new tower would attract a multi-year fee waiver. Proposed charges for Tas TV's use of the new facility are consistent with the approach used in calculating fees for similar sharing arrangements with commercial television licensees throughout Australia.

34. At the public hearing the NTA advised the Committee that it was now able to offer Tas TV VHF capacity without the need for the additional 21 m of tower column. The NTA is prepared to install in the tower an antenna system manufactured in the United States of America which would enable capacity for Tas TV's existing Channel 6 to be provided in the NTA's proposal.

35. The Committee believes that as it is now possible to provide capacity for Tas TV's existing VHF channel on the new NTA tower, without the need for a 21 m extension to the tower, that the parties should continue consultations and discussions to reach some agreement on the possible use by Tas TV of the new NTA facility. While the Committee recognises that Tas TV must make a commercial decision to move to the new tower, and whilst it does not believe that the tax payer at large should subsidise the costs which would be incurred by Tas TV it believes that there is now scope for the Commonwealth and Tas TV to come to some satisfactory arrangement which would provide an inducement for Tas TV to move to the NTA facility as soon as possible.

#### **Committee's Recommendation**

36. The Commonwealth should consult with the management of Tasmanian Television regarding the possible use of a VHF facility by Tasmanian Television's Channel 6 in the upgraded broadcasting facility on Mount Wellington.

#### **Tower**

37. The proposed tower will consist of two major elements:

- a concrete shaft approximately 70 m high with 600mm thick walls. The finish will be off-form concrete with colour controlled by selection of aggregate and mix, to produce a smooth mid to light grey finish.

- an antenna array, supported on a steel lattice frame, and sheathed with fibreglass panels forming a radome. The antenna array consists of three groups of broadcasting antennas plus ancillary items totalling approximately 60 m in height, making the total height of the structural elements of the tower approximately 130 m. Above, there is a lightning conductor spire.

38. There will be a cable entry point in the base of the tower, connected to the transmitter building by a covered duct at ground level. On the plinth, there will be an access way for personnel, leading to the central chamber in which cable ways and a ladder will lead to the antenna column. The concrete support shaft will allow all weather access to the tower and provide structural rigidity in the high wind area at the summit. The radome will prevent ice build-up on the antennas. Consideration is also being given to providing a duct from the building to the tower, to utilise surplus warm air from the transmission equipment to reduce the incidence of ice formation in the upper areas of the tower.

39. Consulting engineers explored various methods of constructing the concrete shaft of the tower, and determined that there are three possibilities:

- precast concrete, post-tensioned
- in-situ reinforced concrete with re-use of the forms, but progressively reducing the diameter (jump form)
- in situ reinforced concrete utilising slip form techniques, with progressive reduction of the diameter (slip form).

40. The decision on the method of construction will be left until after contractors have submitted tenders on this aspect, however, NTA believes that one of the in-situ methods will best meet the design and construction requirements. The Committee understands that the use of a precast concrete design will add a cost of \$235000 to the design work because of the additional analysis and documentation required. However, the Committee believes that these costs could be offset by savings in time as precasting can be done off-site and transported to Mount Wellington when required. This would avoid stoppages due to the frequent bad weather on Mount Wellington which is likely to disrupt both the jump and slip form methods.

## **Transmitter Building**

41. The transmitter building does not require any external modification, other than relocation of the two vehicle garage, and provision of a screen on the roof to deflect ice falling from the new tower which will be located in close proximity to the building.

42. Some internal modifications are required to enable installation of additional transmission equipment. These modifications are minor and do not involve any major structural change.

## **Site Works**

43. Following commissioning of the new tower, some existing structures on the site will be progressively removed.

44. The primary item is the existing broadcasting tower together with the covered cable ways extending from the tower to the building. Other items include the Telecom radio telephone tower standing south of the building, and a number of minor masts.

45. The Bureau of Meteorology Automatic Weather Station, will need to be relocated to make way for the new tower.

## **Reconstruction**

46. The location of the new tower necessitates a revision of the access road in accordance with the site plan. In principle, this will entail upgrading of the existing secondary access road leading from Pinnacle Road to the building from the north, and improvement to the vehicular way in the vicinity of the entrance to the building. The existing major access route would be retained to the tower to allow vehicular access for maintenance purposes.

47. The location of the new tower will require new cable ways from the transmitter building extending from the basement, along the south of the building to the base of the tower. These would take the form of concrete lined trenches with removable concrete covers, designed to accept traffic loads.



48. The existing boundary fencing will be totally replaced with black plastic coated chain wire mesh in accordance with the recommendations of the EIA.

### **Rehabilitation**

49. The site will be rehabilitated in accordance with recommendations made in the EIA and as agreed with the Hobart City Council. The proposed actions include removal of extraneous built objects, care during construction to limit disturbance of vegetation and substrate as far as practicable and to avoid spillage and reduce contaminated runoff, and rehabilitation of disturbed site areas.

### **ENVIRONMENTAL IMPACT**

50. In early 1992, the NTA held discussions with the Tasmanian Department of the Environment and the Hobart City Council regarding the proposal. It was agreed that an Environmental Impact Assessment (EIA) would be prepared to specifications provided by the Council. This was carried out by the Mount Wellington Group, a team of seven independent Tasmanian consultants. The EIA canvassed, at length, alternative means of providing the broadcasting services to the Hobart region. The current proposal was widely accepted as being the most appropriate and cost effective method. After extensive consultation with federal, state and local government bodies, local interest groups and the public the EIA was finalised in June 1992.

51. Preparation of the EIA involved widespread public consultation and included a series of public meeting in locations around Hobart. A development application (including the EIA) for the proposal was submitted to the Hobart City Council on 3 February 1993. Consideration of the development application involved further extensive public consultation procedures, including a 28 day period during which a model and photographs were displayed in the Hobart City Council, after which formal submissions were sought from interested parties. The Council refused planning approval for the NTA's preferred tower design option, but approved an alternative (taller) design.

52. The NTA appealed against the Hobart City Council's refusal to grant planning approval for the preferred tower design option. In considering the appeal the Tasmanian Planning Appeal Board conducted a public hearing into the proposal, at which interested parties were invited to express their views about the development. On 15 July 1993, the Board upheld the NTA's appeal and granted approval for either the preferred tower design or the taller design at the discretion of the NTA.

53. The EIA recognise that during the construction period there is likely to be some short term impacts resulting from:

- . increased heavy traffic use of Pinnacle Road, possibly causing damage to some parts of the road pavement
- . some inconvenience for users of Pinnacle Road due to increased traffic flow
- . some noise disturbance to residential areas at the base of Mount Wellington from heavy vehicle traffic

The Committee believes that the precast concrete option could alleviate noise problems as the precast panels could be transported to the site in normal business hours.

54. The NTA has agreed to take measures, and to consult closely with the Hobart City Council, to adequately ameliorate these possible impacts. The EIA concluded that the proposal is likely to have limited long term impact on the physical and biological values of the site.

55. At the public hearing the Tasmanian Conservation Trust (TCT) which has a long involvement in the management of Mount Wellington, told the Committee that it would prefer to see the summit area return to as natural a state as possible, with the removal of all man-made structures. However the consultations undertaken as part of the EIA process has convinced the TCT that there is currently no feasible alternative to a new transmission tower on the summit of Mount Wellington if current broadcasting services are to be maintained, let alone expanded. For this reason the TCT has endorsed the principle of a new transmission tower.

56. The TCT agrees with both the findings of the EIA and the Hobart City Council that one of the major benefits of this proposal is the possibility of consolidating all the existing facilities into a single tower, to be followed by the removal of redundant facilities. This would be a significant improvement over the present situation (this issue is discussed further at paragraphs 31-36).

57. In its submission the Fern Tree Community Association Incorporated expressed its concern regarding the impact on road surfaces and on the community amenity in the Pillinger Drive part of the Fern Tree community of construction traffic for the project. The Association proposed the construction of a by-pass road which would provide an alternative route and eliminate the need for trucks to pass through the populated area of Fern Tree to reach the base of the Pinnacle Road.

58. The NTA advised the Committee that a condition of the approval that it had received from the Hobart City Council is that the NTA submit a plan both to address the public danger issue of heavy vehicles and also a commitment to rehabilitating any damage to the road that is caused during construction activities. The work is to be preceded by a survey of the road, with a report about its condition and an undertaking from the NTA to restore it afterwards in any area where it is required.

59. The Commonwealth Environment Protection Agency (CEPA) advised the Committee that on the basis of information provided by the NTA and because of the EIA process, CEPA had determined that neither a public environment report nor an environmental impact statement is necessary.

#### **Committee's Recommendation**

**60. The Committee recommends that the National Transmission Agency continue discussions with the Hobart City Council and the Fern Tree Community Association Incorporated in an effort to alleviate traffic and road maintenance problems resulting from construction activities during the upgrading of the Mount Wellington broadcasting facilities.**

#### **SKYWAY PROJECT**

61. Skyway Tasmania Pty Ltd is a company formed to promote the concept of providing improved visitor amenities at the summit of Mount Wellington and an aerial tramway service to provide an alternative method of access. The three shareholders are Trinity Projects Pty Ltd (Trinity Projects), Leighton Contractors Pty Ltd and Von Roll Tramways Limited. The project which is called the Skyway Project, was announced in June 1993 and has attracted considerable public attention. The Tasmanian Government has recently introduced legislation to establish Wellington Park and to set up a management trust charged with the responsibility of the management of the Park. The Tasmanian Government has publicly stated that it supports the project in principle.

62. A representative of Trinity Projects who appear at the public hearing told the Committee that if the Skyway Project was approved construction would start within six months and be completed by June 1996. The facilities proposed at the summit are to be enclosed in a building of approximately 2,000 m<sup>2</sup> in floor area on four levels. At present the building is planned to be located at a distance of about 250 m to the east of the existing tower. Trinity Projects believes that there is widespread support for the limitation of the visual impact and the number of man-made structures at the summit of Mount Wellington. It believes that its proposal should be integrated with the proposed NTA tower. This would require the following changes to the NTA proposal:

- . the tower would require relocation closer to the proposed route for the tramway. A position nearby the existing tower is the most desirable
- . the tower could be built in its present format, within the present time frame, so long as it has provision for tramway terminal facilities to be built at its base
- . the terminal could then be constructed at and around the base of the tower

63. In response to the Trinity Projects proposal the NTA indicated that it is opposed to the integration of the two projects. It believes that Trinity Projects has over simplified the problems associated with integrating the cable car proposal with the NTA proposal. NTA raised the following major objections to the Trinity Projects proposal:

- . Trinity Projects suggested that in order to integrate the two proposals the position of the proposed NTA tower would need to be reconsidered. NTA believes that this raises a number of significant problems. Firstly it would involve the Commonwealth in seeking to acquire an interest of land. It is not known whether acquisition of the required land would be possible. In addition, any substantial change to the scope of the NTA's proposal would require that it start from the beginning in terms of the environmental and planning approval processes. Given the added complexity of an integrated proposal, and the uncertainty surrounding the detailed design, it is the NTA's opinion that, assuming approval was eventually given to

proceed, it would have returned to the same approval stage as at present in about two years time. NTA believes that this is disregarding the considerably more controversial nature of an integrated proposal, and the significantly higher risk of not gaining the necessary approvals

NTA believe that the geological suitability of the new site suggested by Trinity Projects has not been assessed in terms of the ability to locate a tower with substantial foundations. Secondly the extra distance required for the feeder cables from the transmission building to the new tower, ranging from 150% to 200% of the existing cable length would result in significantly greater power loss, and subsequent degradation to the transmitted signals

the collocation of a significant tourist facility with a transmission tower on the summit of Mount Wellington introduces very serious questions about public safety. From operational experience at the Mount Wellington site it is known that ice build-up is a major problem. The existing tower is reported to have experienced ice build-up with an estimated weight of 240 tonnes, and a single ice fall was estimated at 30 tonnes. The new tower is designed to reduce the build-up of ice on the tower by continually shedding ice that forms on the surface. The NTA believes that the potential danger to the public is obvious and does not believe that Trinity Projects has addressed the question of how this danger could be removed.

64. At the public hearing the NTA advised the Committee that it was firmly of the view that integration of the projects would cause considerable delay to the urgently needed replacement broadcasting tower and would inevitably lead to significant increases in the cost to tax payers. For these reasons the NTA considers that the proposed integration is not practical.

65. The Committee having considered the evidence presented by the NTA against integration of its tower with the Skyway Project, finds itself in agreement with the NTA that such a proposal is not practical and would lead to unacceptable delays in the provision of upgraded broadcasting facilities on Mount Wellington.

## **Committee's Conclusion**

**66. The suggested integration of the National Transmission Agency's proposal with the Skyway Project is not practical and would lead to unacceptable delays in the provision of upgraded broadcasting facilities on Mount Wellington.**

## **CONSULTATIONS**

**67. The following organisations have been consulted during, or involved in, the development of the proposal.**

- Department of Sport, the Environment and Territories
- Commonwealth Environment Protection Agency
- Australian Heritage Commission
- Department of Finance
- Civil Aviation Authority
- Bureau of Meteorology
- Telecom Australia
- The City of Hobart
- Tasmanian Department of Environment and Planning
- Planning Appeal Board
- Tasmanian Department of Parks, Wildlife and Heritage
- Hydro-Electric Commission
- Wellington Range Working Group
- Progress Associations in the Hobart region
- Community and Environmental Groups
- Tasmanian Television Limited

## **CONSTRUCTION PROGRAM**

68. The Committee was advised by the NTA that construction management by Telecom Australia is planned. The NTA considers Telecom Australia to be the most experienced broadcasting engineering group in Australia. Telecom has been responsible for the design and construction of most of the broadcasting transmission infrastructure in Australia. It was pointed out that as was usual for such projects, much of the work would be subcontracted by Telecom.

69. Construction of the new tower on Mount Wellington will be extremely difficult because of the hostile weather environment on the summit. Primarily due to the high winds at other times of the year, construction of the tower can only occur during the summer months, and erection of key antenna elements is likely to be practicable only during a brief window centred on the month of February. Even then, delays can be expected to occur during the favourable months due to adverse weather. Completion of the facility by April 1994 as originally intended is now not possible.

70. It is now proposed that construction of the facility will take place over the 1993-94 and 1994-95 summer periods. In order to complete the facility as early as possible in 1995, it is hoped that the concrete tower base can be completed in the coming season, with the steel work and radome constructed, and the transmission equipment installed in the following summer.

## **COST**

71. The preliminary cost of the work when referred to the Committee was \$13m in August 1993 prices. At the time of the public hearing the NTA advised the Committee that the indicative cost estimate was \$13.095m at September 1993 prices. The cost estimate includes: fees, construction costs, contingency and rise and fall allowances and equipment costs.

## **Committee's Recommendation**

72. The Committee recommends the upgrading of Mount Wellington broadcasting facilities, Hobart at an estimated cost of \$13.095m at September 1993 prices.

## CONCLUSIONS AND RECOMMENDATIONS

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

	Paragraph
1. There is a need for the upgrading of broadcasting facilities on Mount Wellington to replace the present inadequate facility which is not capable of further major extension and is nearing the end of its useful life due to structural fatigue.	26
2. The upgrading of broadcasting facilities on Mount Wellington will enable an additional commercial television service to be provided in Southern Tasmania in accordance with the Government's television equalisation program.	27
3. The Committee is satisfied that there is no environmentally or socially acceptable alternatives to the continued use of Mount Wellington as a broadcasting transmission site.	28
4. The Commonwealth should consult with the management of Tasmanian Television regarding the possible use of a VHF facility by Tasmanian Television's Channel 6 in the upgraded broadcasting facility on Mount Wellington.	36
5. The Committee recommends that the National Transmission Agency continue discussions with the Hobart City Council and the Fern Tree Community Association Incorporated in an effort to alleviate traffic and road maintenance problems resulting from construction activities during the upgrading of the Mount Wellington broadcasting facilities.	60
6. The suggested integration of the National Transmission Agency's proposal with the Skyway Project is not practical and would lead to unacceptable delays in the provision of upgraded broadcasting facilities on Mount Wellington.	66



7. The Committee recommends the upgrading of Mount Wellington broadcasting facilities, Hobart at an estimated cost of \$13.095m at September 1993 prices.

72



Colin Hollis

Chairman

16 November 1993

## APPENDIX A

### WITNESSES

**BURBURY**, Mr Timothy, Consulting Engineer and Managing Director, Trinity Projects Pty Ltd, 287 Macquarie Street, Hobart, Tasmania,

**ERREY**, Mr Thomas George, Member, Fern Tree Community Association, Stephenson Place, Fern Tree, Tasmania

**GLASS**, Mr Thomas, Professional Officer Grade 3, Structural Engineer, Telecom Australia, 11th floor, 484 St Kilda Road, Melbourne, Victoria,

**JONES**, Mr Victor Hugh, General Manager, National Transmission Agency, Level 5, Magenta Building, Benjamin Offices, cnr College Street and Benjamin Way, Belconnen, Australian Capital Territory

**McADOO**, Mr Gregory Nelson, Assistant General Manager, National Transmission Agency, Level 5, Magenta Building, Benjamin Offices, cnr College Street and Benjamin Way, Belconnen, Australian Capital Territory

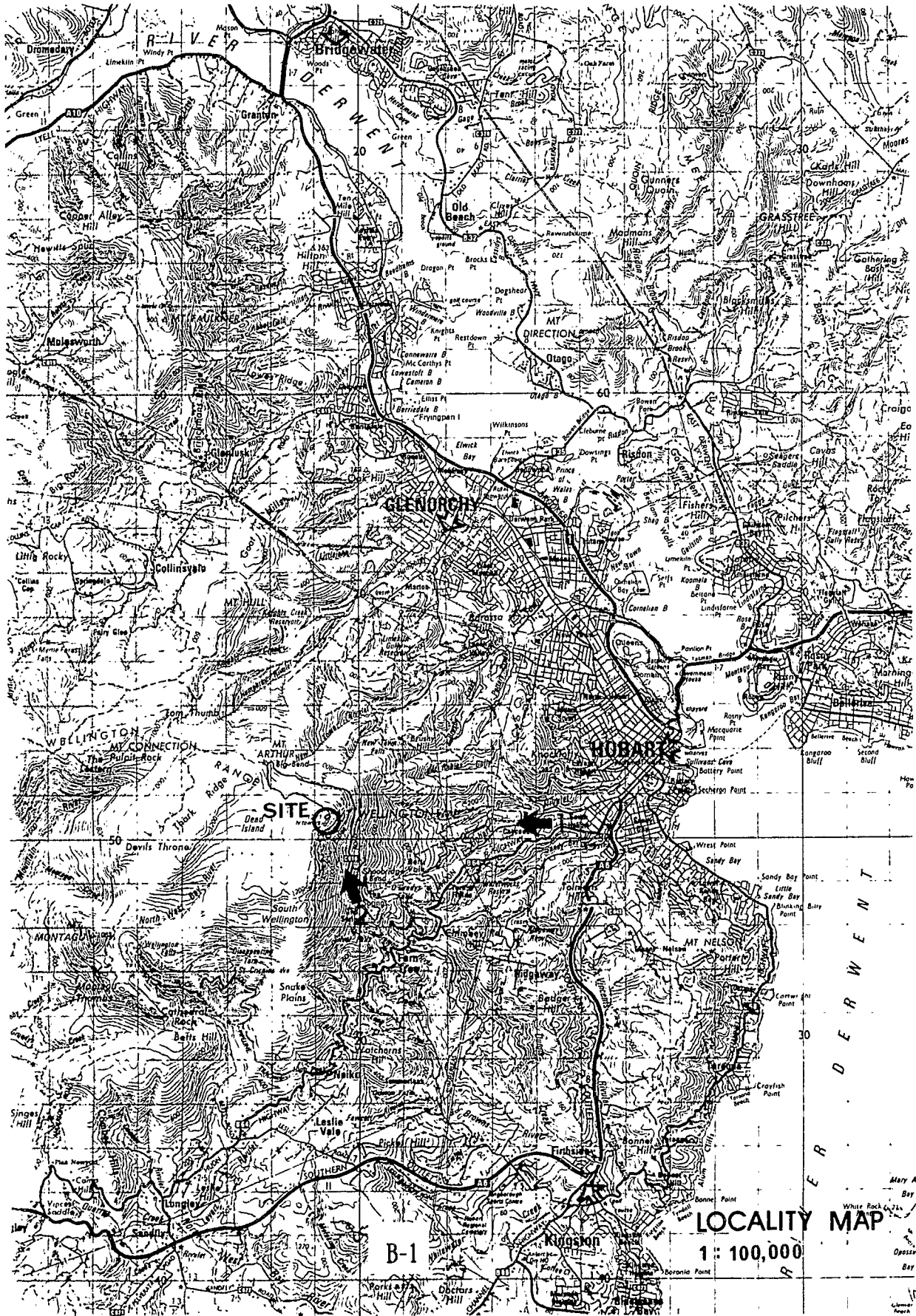
**RODGERS**, Mr Leslie Peter, Acting General Manager, Telecom Australia, 11th floor, 484 St Kilda Road, Melbourne, Victoria

**SAWYER**, Mr Nicholas Antony, Executive Officer, Tasmanian Conservation Trust Inc., 102 Bathurst Street, Hobart, Tasmania

## APPENDIX B

### PROJECT DRAWINGS

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Transmitter Building	B-4
Tower	B-5



**SITE**

**LOCALITY MAP**

1:100,000

B-1

DERWENT

WELLINGTON

HOBART

GLACIERS

BRIDGEWATER

DERWENT RIVER

MONTAGU

MT NELSON

KLASKAN

MARY A BAY

WHITE ROCK

OPPOSITE BAY

CAMP

HON 70

WELLINGTON

DEVILS THROAT

MONTAGU

SINGLES HILL

SABULI

ROBINSON

WELLINGTON

SOUTH WELLINGTON

SNAKE PLAINS

LESLIE VALL

ROBINSON

WELLINGTON

WELLINGTON

SOUTH WELLINGTON

SNAKE PLAINS

LESLIE VALL

ROBINSON

WELLINGTON

WELLINGTON

SOUTH WELLINGTON

SNAKE PLAINS

LESLIE VALL

ROBINSON

WELLINGTON

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SOUTH WELLINGTON

SNAKE PLAINS

LESLIE VALL

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SOUTH WELLINGTON

SNAKE PLAINS

LESLIE VALL

ROBINSON

WELLINGTON

WELLINGTON

SOUTH WELLINGTON

SNAKE PLAINS

LESLIE VALL

ROBINSON

WELLINGTON

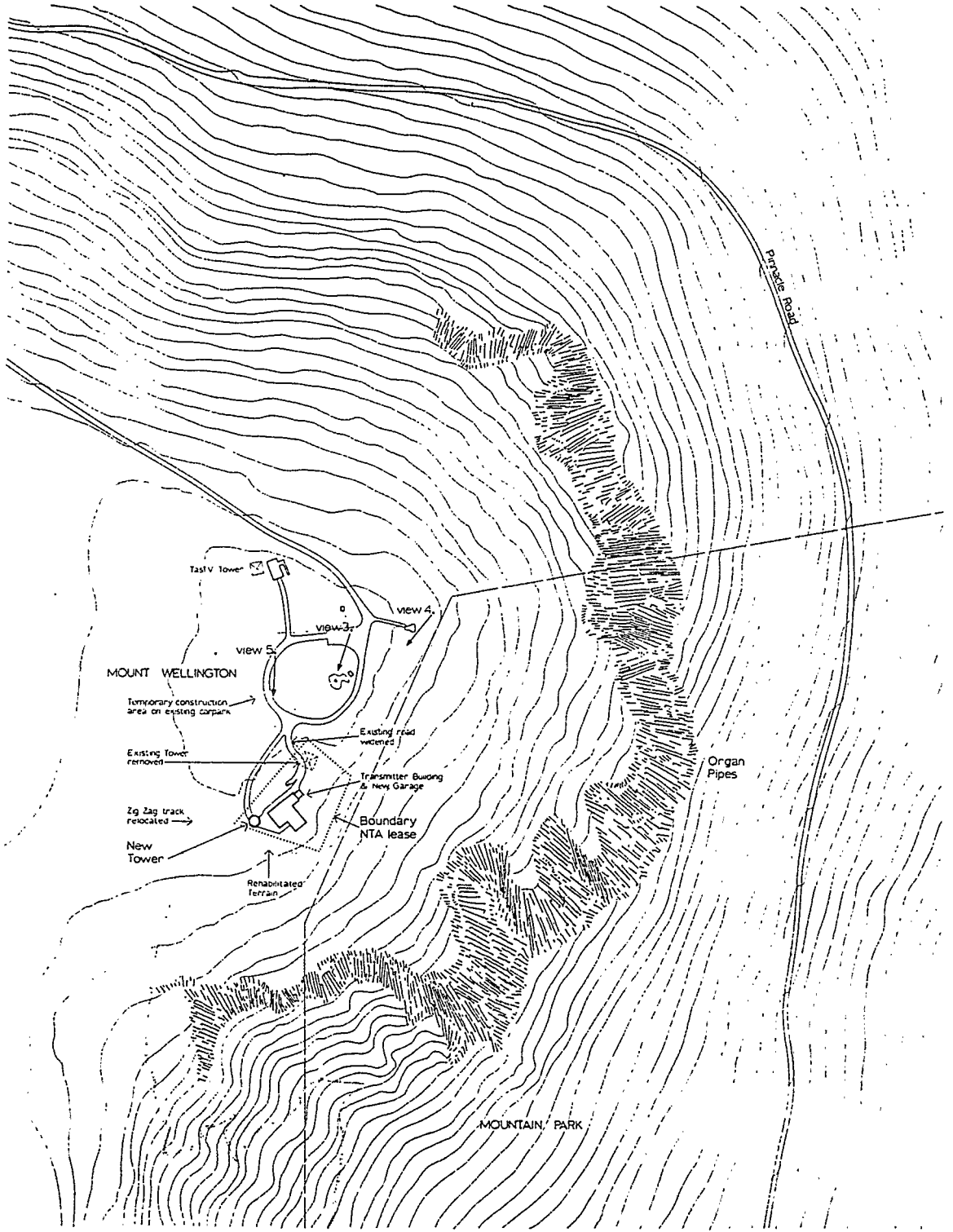
WELLINGTON

MARY A BAY

WHITE ROCK

OPPOSITE BAY

CAMP



LOCATION PLAN

# BROADCASTING REDEVELOPMENT

# M<sup>T</sup> WELLINGTON

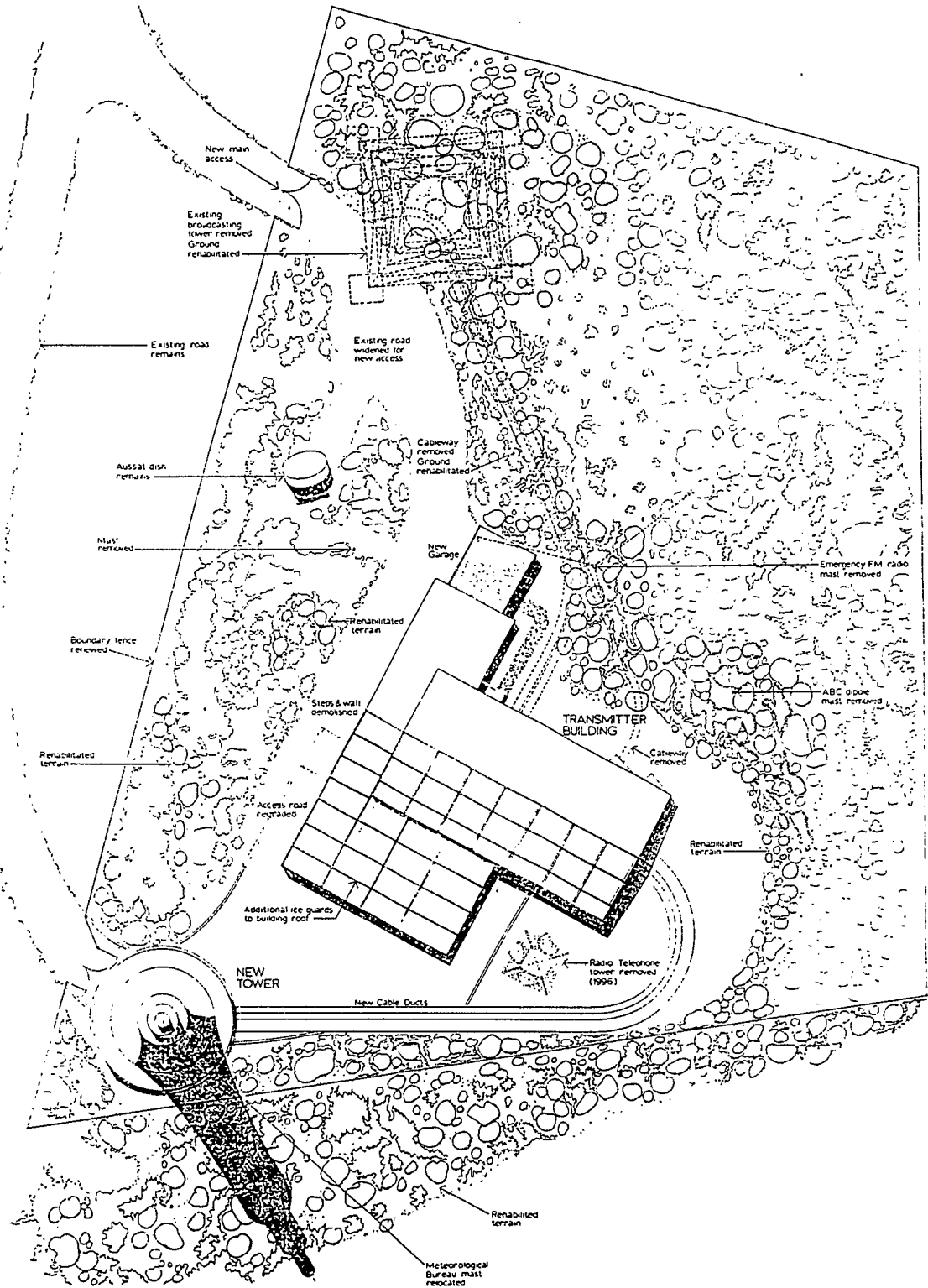
NATIONAL TRANSMISSION AGENCY

B-2

LOCATION

JANUARY 1992





SITE PLAN

BROADCASTING REDEVELOPMENT M1 WELLINGTON

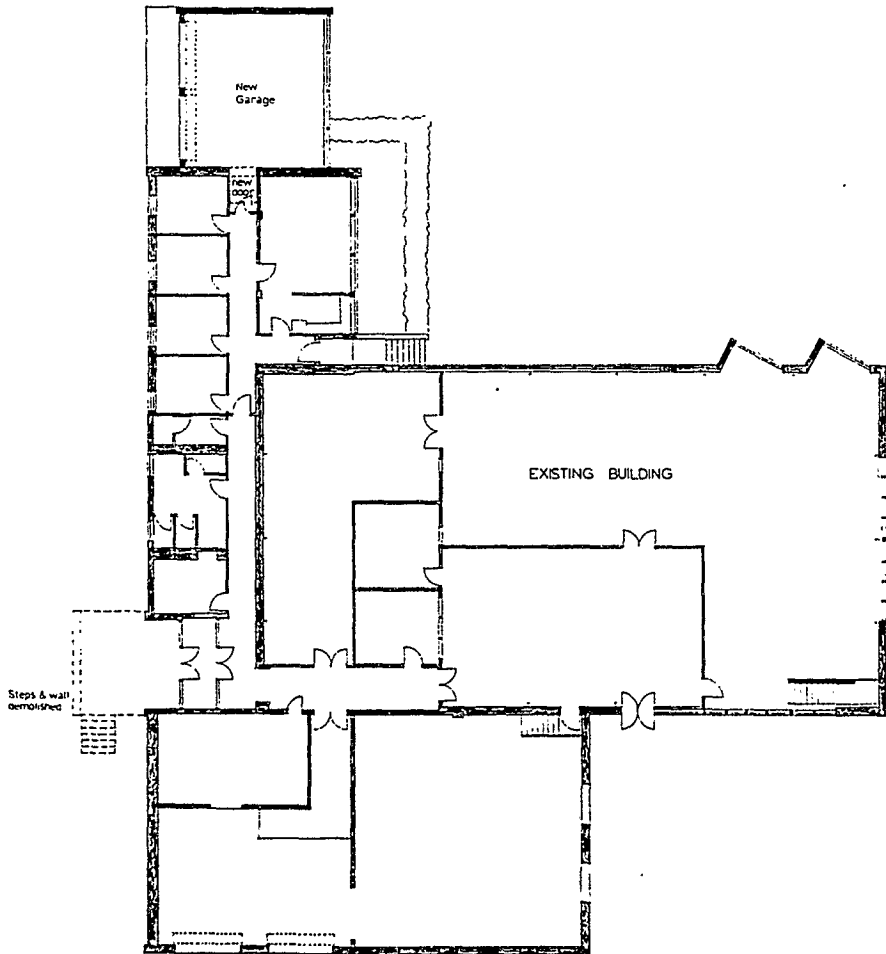
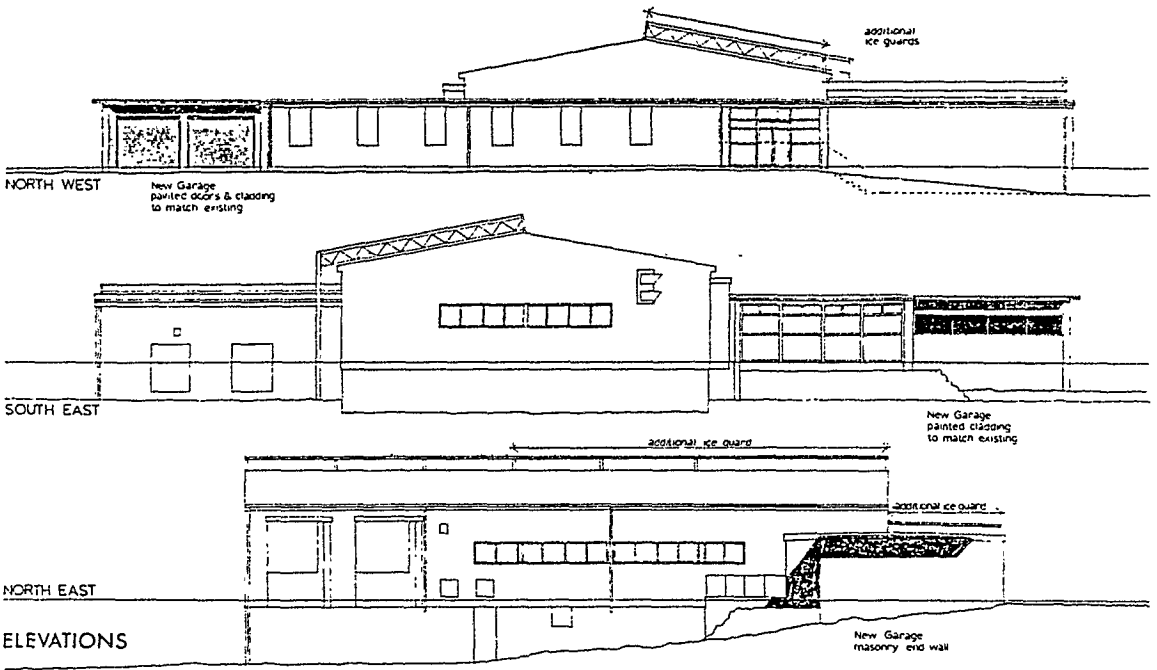
NATIONAL TRANSMISSION AGENCY

B-3

SITE

JANUARY 1993

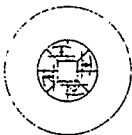




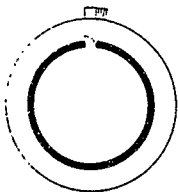
PLAN



1 UHF Television



2 FM Radio VHF Television Communications



3 Reinforced concrete base

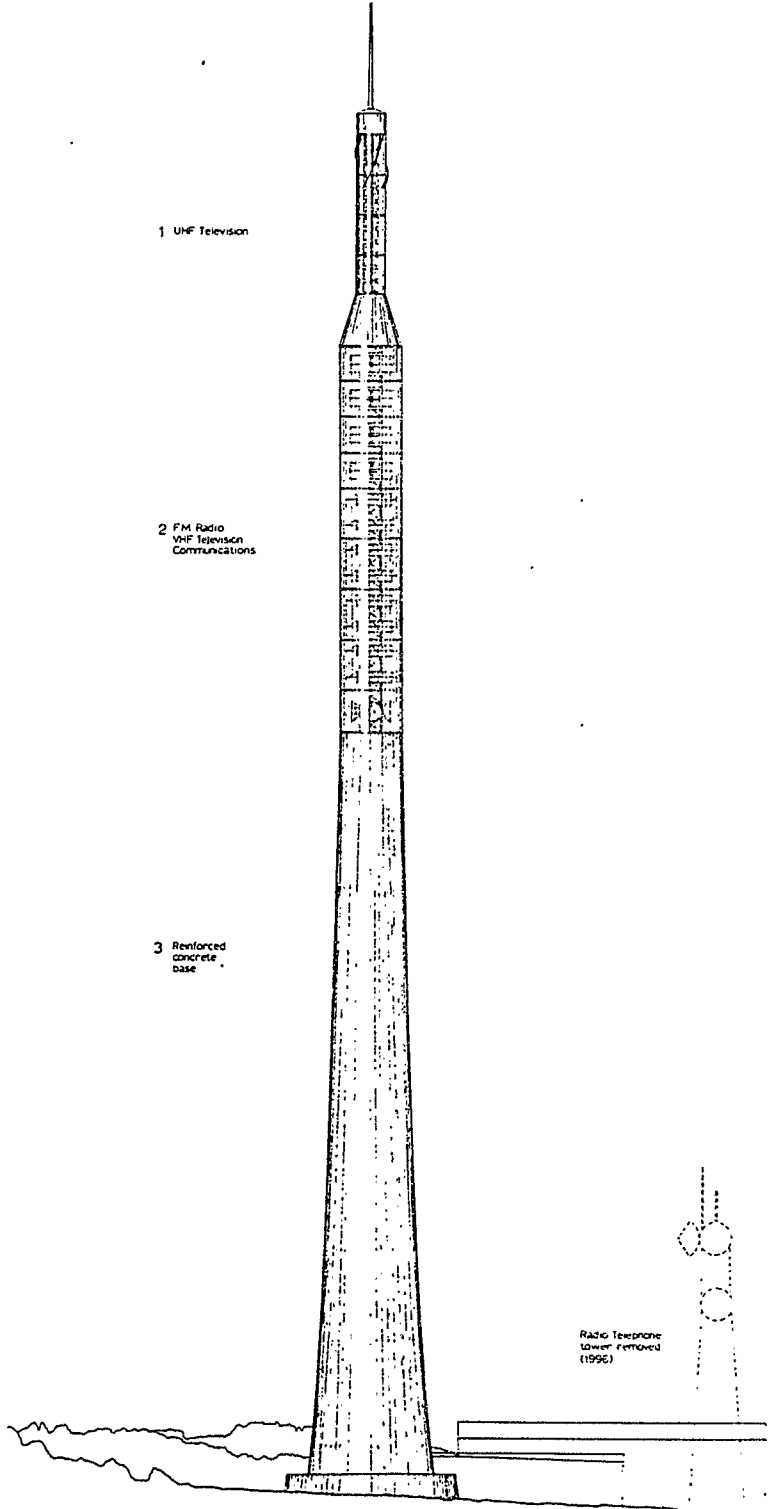
TOWER PLANS

SOUTH ELEVATION

1 UHF Television

2 FM Radio VHF Television Communications

3 Reinforced concrete base



Radio Telephone Tower removed (1996)

BROADCASTING REDEVELOPMENT M<sup>T</sup> WELLINGTON

NATIONAL TRANSMISSION AGENCY

B-5

TOWER

JANUARY 1993