

experienced and for the character of the noise to become more objectionable. Research is now under way in these areas, but the problems are technically difficult and no effective solutions are in sight."

"Another aspect of the problem deals with the technical and economic forces which are pressing for airport expansion and which, in turn, are opposed by the encroachment of the surrounding community. Many communities are approaching an impasse arising from limitations to safe operation on existing airports combined with a physical inability to improve or extend them because homes or factories have been built close to the runway ends.

"The pattern of development for major airports has been historically similar. Twenty years ago when airplanes were small in size and few in number, airport sites were selected at a distance beyond the city limits where ground was cheap and where few buildings obstructed the natural approaches to the field. Few then complained of the noise because it was infrequent and not very loud. As a matter of fact, this audible evidence of the arrival and departure of mail and passenger airplanes was often a source of local pride.

"Normal growth, greatly augmented by the wartime movement of people to the cities, caused a spreading out towards the airport. Furthermore, the airport and its activities frequently acted as a magnet, drawing first the sightseer and then the businessman interested in concessions. Because desirable land was cheap, and a new and advantageous type of transportation was available, industries (sometimes aeronautical, sometimes not) settled near the airport.

"Attached to all these enterprises were people. People required homes within a short distance of their jobs. Speculators saw the opportunity to subdivide cheap land at a profit. Public utilities established primarily for the airport could be made available to the adjacent housing. Villages emerged, complete with shopping centers, schools, hospitals and recreation facilities. As a consequence, many municipal airports which were started less than two decades ago in the open country were progressively surrounded by residential and industrial areas.

"The immediate problem is to find a way to protect present airports and the people residing near them by applying some means of control of ground use in approach zones. Local authorities should prevent further use of land for public and residential buildings near the ends of existing runways. If this is not done, new contingents of home owners will be added to the ranks of those who are now protesting against noise and hazard. In time public pressure may threaten the continued existence of the airport and large investments of public and private funds will be jeopardized.

"This Commission has two suggestions to make in this connection: (1) that certain extensions or over-run areas be incorporated in the airport itself, and (2) that larger areas beyond such extensions be zoned by proper authority, not only to prevent the erection of obstructions that might be harmful to aircraft, but also to control the erection of public

and residential buildings as a protection from nuisance and hazard to people on the ground."

The experience in Melbourne has been exactly as stated. Land has been subdivided and houses erected right up to the ends of the runways at Melbourne Airport and with the increasing use of the aerodrome and the growth in the size of aircraft the nuisance factor has resulted in complaints from nearby residents.

Realising this, it would have been desirable by the provisions of the planning scheme to prevent the further spread of housing towards the airport. Development has, however, already proceeded so far that any effective action is not now practicable and some areas which because of proximity to the aerodrome are not really suitable for homes have had to be zoned for residential purposes.

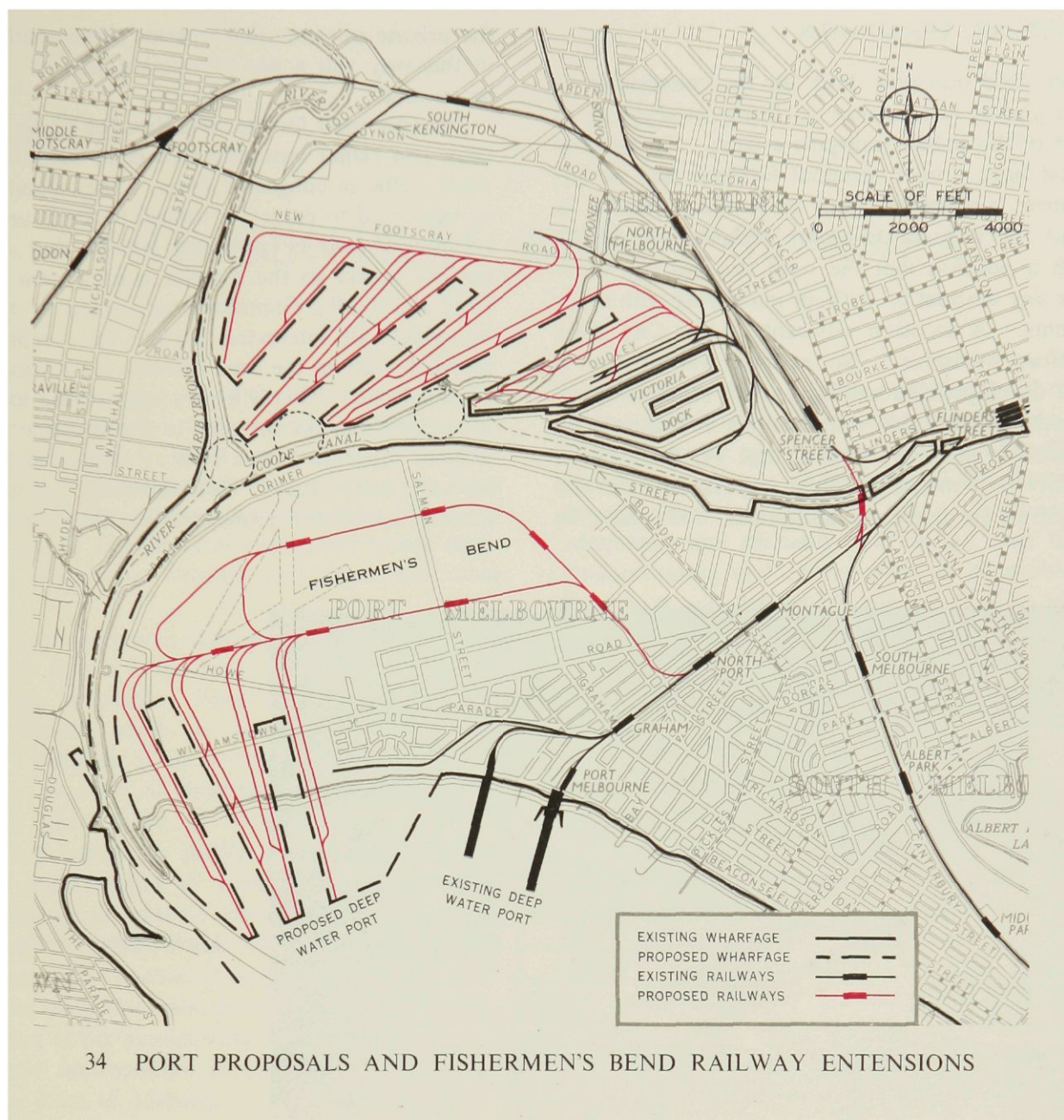
The Department of Civil Aviation are fully alive to the problem and are conducting extensive research into means of ameliorating the nuisance from its aerodromes. It is too early yet to say definitely what will eventuate but there are promising possibilities that improvement can be effected.

Both on this account and because of the growth of air traffic, the time is approaching when another major airport will be required for Melbourne. The Department of Civil Aviation advises that because of the technical questions involved there is only one suitable site near Melbourne, the present Moorabbin aerodrome now used for light aircraft. Future development of this aerodrome into a major airport must, therefore, be contemplated.

From the viewpoint of road communications it is well situated, and development is still sufficiently far away to practically eliminate the accident hazard, and to some extent this will reduce the nuisance factor. It is essential that these conditions be preserved and, as far as is practicable, the surrounding area has been zoned for rural purposes. Because of this and the uncertainty as to the exact needs, no specific reservations have been made for the extension of the airport.

It will be suggested, perhaps, that the terminal aerodrome for long-distance flights should be removed even further from the city, and passengers and freight transported between the airport and the city centre by helicopter. Although the developments which are taking place with this form of aircraft render this a possibility, the present position is that this form of transport would be much more costly than road transport and the noise produced by the helicopter is too great for extensive use from a terminal in closely developed areas near the city centre.

Nevertheless, the possibilities of this form of transport for communication with provincial centres, if not with local airports, must be kept in mind. If improvements can be effected which will permit the helicopter to land and depart from central area locations safely and without creating an undue nuisance, then its use for short-distance transport may well become a reality. If this should happen, then central area locations for the landing of commercial aircraft of this type will be necessary if its advantages are to be fully exploited.



As at present developed, a helicopter requires a landing area of about 300 feet square, so located that certain approach conditions must be observed. The Department of Civil Aviation has stated that the only central locations where these could be found are over the railway yards at Jolimont near Exhibition Street, at Victoria Market, or over Spencer Street Station. Of these the last-named is the most favourably situated considering the interchange between the various forms of public transport, the road traffic to it, and the possible nuisance from noise. As the area is under public control no reservation is necessary. The only questions which would arise are the form and cost of construction to avoid interference with railway installations.

PORT FACILITIES

The Port of Melbourne is under the control of the Melbourne Harbour Trust, which has developed a well

considered and comprehensive plan for the long-range development of the port. This provides for a new deep-water port for large overseas vessels at the mouth of the Yarra (which is now under construction and is designed to replace Station and Prince's piers at Port Melbourne), the widening of the lower Yarra to a minimum of 640 feet and deepening it to 40 feet, the construction of new docks between Victoria Dock and the new Williamstown Road, and other associated works. These are shown in outline in map 34.

These proposals use all the area available for port expansion in this vicinity and adequately provide for future needs. The reservation of all this area is advisable because there is no alternative site available. Most of the land required is now either under the control of the Harbour Trust or is Crown lands. Together with some adjacent land it has been included in the Transportation Zone previously referred to.

ROAD TRANSPORT TERMINALS

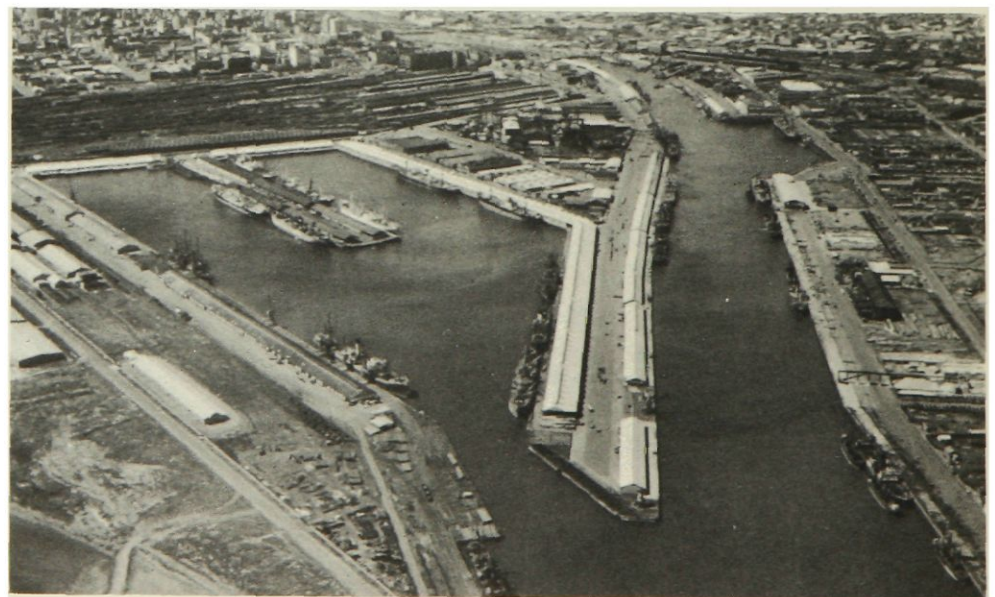
Long-distance road transport, both for the conveyance of passengers and goods, has become so firmly established as to rank as part of the public transport system. To be fully effective it must have proper terminal facilities and in this respect Melbourne lags behind many cities much smaller in size. Any site for a road passenger terminal should be located in such a position that the road vehicles can enter and leave it for any destination without interfering with other traffic movements. A location adjacent to the City Ring Road is therefore advisable. No suitable vacant site is available and a developed site will have to be acquired eventually. A number of suitable ones can be found and no specific reservation is necessary at this stage. As the location of such a facility is a matter of great importance, the site should be acquired by the civic authorities and leased to

the private interests that operate these road services. Only in this way will a site of suitable size in a proper location be secured.

Vehicles used for the long-distance transport of goods are large and rather unwieldy and cause much interference with other traffic in congested areas. They should, therefore, not be permitted to enter the central business area, and terminal facilities should be provided outside that area where convenient access to the arterial road system is possible. In 1952 the Traffic Committee appointed by the Government, on which all interested parties were represented, recommended a site in the area between New Footscray Road and Dynon Road. This is a very appropriate location and there is ample room for an area to be set aside for this purpose without interfering with railway or port expansion, at least for very many years. This, therefore, has been made a permissible use of the Transportation Zone provided there.



Melbourne Airport



Victoria Dock and River Berths