

Chapter 5

INDUSTRY AND ITS NEEDS

SUCH has been the evolution of our civilisation that most of nature's gifts must undergo various transforming processes to make them available, in acceptable form, for the needs of the people. This conversion of our primary production into manufactured goods is referred to by the general term of "Manufacturing Industry." In this section of industry are employed by far the greater proportion of all industrial workers.

Because of its natural advantages, Melbourne has become the principal manufacturing centre for Victoria. So great has been the concentration of this type of industry within the metropolitan area that today 85 per cent. of the whole factory output of the State is produced here.

For this reason it has been the policy of successive State Governments to encourage and aid the decentralisation of industry to country centres. Laudable as is this objective, the fact remains that there are many practical and economic difficulties in the way of large scale movement of industry from Melbourne. The very large volume of manufacturing potential already located here, the close linkage between different industries, the labour resources of the metropolis, the ready market for many goods and the facilities for distribution by road, rail, sea and air, make Melbourne a particularly attractive centre for many industries. When to this is added the cost of transporting components of manufacture from the port and the city to the country, and of the manufactured goods back again to the principal market and to the port, the difficulties of State-wide industrial decentralisation are accentuated.

It must be concluded, therefore, that as the resources of the State are further developed and as the population grows, industrial activity in Melbourne will increase, and will have considerable influence on the future growth and development of the city and the pattern of living in it.

At the present time industry is using approximately 6,000 acres of land in the metropolitan area, or about 4.2 per cent. of the present urban area. The problems are what additional area will industry require to meet reasonable future needs and where should new industrial areas be located. In arriving at answers to these problems it was necessary to consider some of the underlying factors which will influence them.

LAND REQUIREMENTS OF INDUSTRY

The area which should be set aside for industrial purposes depends, among other things, on the types of industry which will be established, the number of employees in each type of industry, and the individual areas necessary to accommodate the workers under proper conditions and with reasonable amenities.

In 1947 there were 276,269 persons employed in secondary industry within the metropolitan area. This represented 47.7 per cent. of total wage earners, which is a high proportion compared with other cities of similar character. Although there is no doubt that industry will continue to expand, it is probable that the proportion of the population engaged in it will decline. Therefore, in arriving at an estimate of the total future land needs of industry, it was assumed that in a population of 2,500,000 the total industrial work force will not exceed 540,000 persons, of whom about 450,000 will probably be employed in manufacturing industries.

The architectural planning of factories and the accommodation provided for workers have advanced enormously in recent years. More spacious buildings, single storey design, more liberal floor space, workers' amenities and car parking facilities have all resulted in larger plot areas being required for individual factories. The standards which are considered desirable for various types of industry are recorded under "Surveys and Analysis." By applying these to the estimated volume of future employment in the various sections of industry the net area requirements of industry were determined. In arriving at the gross area which should be zoned for industrial purposes allowance was made for industrial sites not fully developed, for land reasonably held for future factory extension, for new industrial development, for roads and other public amenities, and for non-industrial uses, such as storage and general amenities for workers. In addition, it is necessary to provide sufficient area to permit of some freedom of choice in the selection of industrial sites. After allowing for all these factors, a gross area about double the calculated net site requirements was arrived at. It was estimated that the total area which should be zoned for industrial purposes was in the vicinity of the following:

General Manufacturing Industry	12,000 acres
Oil and Explosives Industry	4,000 acres

These two sections of industry were estimated separately because of the greatly differing intensity of land use.

Another important section of industry as regards land requirements are the extractive industries concerned with such activities as the quarrying of stone and the winning of sand and clay. Most of these industries now operating within the proposed urban limits have a comparatively short life. Because of the geological formation, new extractive industries must of necessity be located in the rural zone, and provision has been made accordingly in the scheme.

THE LOCATION OF INDUSTRY

To the industrialist, a great city such as Melbourne offers almost limitless opportunities for an adequate labour force, and one of the main problems that face him is the selection of the most suitable site for his works.

In the past, the major factors determining the location of industry have been proximity to the source of raw materials, to railways and waterways for transport, to coal for motive power, and to a skilled labour supply. These are still important influences for the so-called heavy industries, but the almost universal availability of electric power and the great advances in road haulage have substantially reduced the dependence of industry on these factors. This has resulted in greater flexibility in the selection of industrial sites. Although proximity to an adequate labour force will always be a dominating need, the trend towards mechanisation and

mass production has reduced the dependence of industry on the traditional skills and the indigenous trades. The industrialist has therefore a wider field from which to draw his labour.

Some industries must always be restricted in their choice of sites. For example, shipbuilding and industries handling sea-borne raw material in bulk are tied to the waterfront. Subsidiary industries, because of their close relationship with and dependence on a larger parent industry, must, for economic reasons, be located close by it. By-product factories associated with abattoirs are an example of this. However, despite the linkage within the various sections of industry, most industrial concerns have a wide choice of location, the main considerations being availability of adequate land, and access to sources of labour and to suitable transport facilities.

So much for the viewpoint of industry itself, but the viewpoint of the worker and of the community as a whole must also be considered.

For the worker the time involved and the cost incurred in travelling to and from work is important. This should also be of concern to the industrialist because better results can be expected from workers who are not tired by long travelling and who have not the worry and discontent resulting from the heavy inroads of fares on their weekly pay envelope.

The dominant features of the present industrial pattern in Melbourne is the great concentration within the central areas. Sixty per cent. of all industrial employment is located within three miles of the Central Post Office. Even in the central city area, bounded by Flinders, Spencer, Franklin, Victoria

"Architectural planning . . . has advanced enormously"

