RAILWAY LOAN APPLICATION BILL 1968.

EXPLANATORY MEMORANDUM.

Generally, the Bill seeks Parliamentary sanction for expenditure of the Loan funds allotted to the Railway Department for the 1968-69 financial year.

The Loan funds allotted to the Department for the year amount to \$17,064,000, including amounts specifically allotted for progress payments on a further 100 bogie hopper grain wagons and on two air conditioned diesel rail cars for the Ararat-Hamilton-Portland line, and for construction of new railways from Welshpool to Barry Beach and from Tyabb to Long Island. As this Act must continue to operate until a new Act is passed and has received the Royal Assent—possibly late in 1969—provision is made in the Bill for sufficient authority (\$24,000,000) to cover the Department's estimated expenditure up till 31st December, 1969.

The 1969 Act, when it comes into operation, will automatically cancel the unexhausted provision in the 1968 Act.

Sub-items 101 to 113 of Item 1, 201 to 206 of Item 2, and 304 and 305 of Item 3 refer to annual provisions, i.e., continuing works and purposes on which expenditure is incurred year by year. Under these items no figure can be supplied under the heading "estimated total cost", the only estimate available being that of proposed expenditure during the currency of the Act.

Sub-items 114 to 119 of Item 1 refer to specific works, each of which is estimated to cost \$100,000 or more.

The following information is supplied for the assistance of Honorable Members in considering the various items and sub-items in the Bill:—

ITEM 1—WAY AND WORKS.

Sub-Item.

(101) Stations, vards, &c.

This sub-item provides for the large number of additions, improvements and reconstructions that must be carried out at stations and yards throughout the System each year in order to meet varying traffic requirements or replace obsolete facilities.

It covers such projects as improved station offices; additional or rearranged sidings for goods handling; longer crossing loops; alterations to stockyards; and many other works of a minor nature.

(102) Accommodation for locomotives, carriages, &c.

This sub-item provides for additions, improvements and reconstructions, mainly of a minor nature, in and about rolling stock workshops, depots and stabling areas.

(103) Signalling, interlocking and traffic control systems.

As well as covering a number of minor works in connexion with signalling and safeworking throughout the System, this sub-item provides for the progressive extension of automatic power signalling, which has two important advantages over manual signalling:—

(a) It enables long block sections to be subdivided into shor sub-sections, thus greatly increasing the capacity of lines

(103)—continued.

(b) It results in important savings by enabling crossing loops to be remotely controlled; by reducing the number of signal-boxes required; and by eliminating the necessity to keep staff on duty at safeworking stations at times when the stations do not need to remain open for the transaction of public business.

During the currency of the Act funds are required to enable equipment to be provided for the remote control of signalling installations at Newmarket and Oakleigh, and towards a number of minor works.

(104) Lines, &c.

The principal expenditure under this sub-item is represented by the annual programme of relaying of tracks and renewal of points and crossings. Provision is also made for minor improvements to banks, cuttings, curves, gradients, &c., which can often be carried out economically in conjunction with track relaying, and which can yield operating economies by way of higher sustained speeds or increased loads.

(105) Level crossings, &c.

This sub-item covers improvements to existing level crossings, including the provision of boom barriers or automatic flashing light signals, and various measures to improve the view of approaching trains or otherwise increase safety.

A continuous programme of improving level crossings by these means is being carried out as rapidly as the available funds and technical resources will permit.

(106) Grade separation at level crossings, &c.

Under the Country Roads and Level Crossings Funds Act passed in 1954 (now section 115 of the Country Roads Act 1958), grade separation is being undertaken at various locations, and it has been agreed that the Commissioners will contribute 20 per cent. of the cost of these works.

The amount provided is the estimated expenditure by the Railway Department during the currency of the Act on the following projects which are in hand or are to be commenced:—

Canterbury-road, Canterbury
Princes Highway West, Garvoc
Fish Creek-road, Hoddle
South Gippsland Highway, Loch
Warrigal-road, Oakleigh
Princes Highway West, Winchelsea

Calder Highway, Elphinstone
Princes Highway East, Traralgon
Somerville-road, Yarraville

(completion)

(progress)

In addition, funds are required for land acquisition in preparation for grade separation work to be carried out in later years at McPherson and Wawunna streets, Horsham; North-road, Huntingdale; and Millers-road, Paisley.

(107) Dwelling accommodation for employés, &c.

This sub-item is to provide for expenditure during the currency of the Act on additional or improved dwelling accommodation which it may be necessary to provide to meet staffing requirements, mainly in country locations.

(108) Staff amenities in depots, workshops, stations, offices and yards.

This sub-item is to authorize expenditure on a progressive programme of improvements to staff amenities, including meal and locker rooms, showers, sanitary facilities, &c., that is being carried out as rapidly as the available funds will permit.

In addition to the works provided for under this sub-item, modern staff amenities are being incorporated in the rearrangement of the Melbourne goods sheds and marshalling yards (sub-item 114) as the work proceeds.

(109) Communication lines, &c.

This sub-item provides for additions to and modernization of the Department's communications network. The planned programme provides for the progressive displacement of morse telegraph circuits by a system of teleprinter centres located at key points throughout the State (local communications with these centres to be by telephone), and also for the upgrading of telephone communications between Melbourne and the principal country centres.

In order to implement this programme it will be necessary to upgrade a number of the principal pole lines. During the currency of the Act it is proposed to carry out this work on the Ballarat-Ararat and Dimboola-Kaniya sections of the Serviceton line.

(110) Electricity supply, &c.

This sub-item provides for additions and improvements to electricity supply, both for normal lighting, heating and industrial purposes and for the operation of electrified lines. Under the latter heading the principal item of expenditure is in connexion with a long-range programme to convert the high tension supply for the Melbourne electrified lines from 25 to 50 cycles, in anticipation of the eventual discontinuance of 25 cycle supply from the Newport Power Station.

Provision is also made for additional substations to meet traffic demands, the replacement of oil circuit breakers, modifications to protective equipment designed to minimize interruptions to the services through faults on high-tension feeders, and extensions to the supervisory control system to control the additional substations.

(111) Bridges, &c.

This sub-item provides for expenditure during the currency of the Act on the reconstruction of bridges, with particular emphasis on the programme of replacing timber or part timber bridges, as they reach the end of their economic life, with permanent structures of steel and concrete, and for other improvements or modifications to bridges to meet altered rail traffic conditions or drainage requirements.

(112) Plant and equipment, &c.

This sub-item provides for the purchase of all plant and equipment other than road motor vehicles and rolling stock plant and machinery.

A considerable amount of new plant is required to permit the progressive introduction of the cyclic system of track maintenance, under which all heavy repairs throughout a district are carried out by specialized, fully mechanized gangs over a fairly long-term cycle, and the local gangs (suitably adjusted in strength) do only such work as is necessary to keep the tracks in proper alignment. The cyclic system not only results in a better standard of track maintenance, but also yields considerable economies.

Also covered by this sub-item are goods handling equipment for traffic purposes such as cranes and fork-lift trucks; printing machinery; platform trolleys; and accounting machines.

(113) Private sidings constructed on railway land.

As part of their concentrated drive to obtain new business in the face of intense competition, the Commissioners have adopted the policy of contributing towards the cost of private sidings constructed on railway land in suitable cases where a guarantee of substantial rail traffic is forthcoming.

Previously, the siding owner was required to meet the whole of such costs.

The amount provided is the estimated expenditure on this work during the currency of the Act.

(114) Melbourne goods sheds and marshalling yards—Rearrangement and provision of additional facilities, ircluding acquisition of land.

This work was authorized under previous Loan Acts.

Total expenditure to 24th August, 1968, \$6,569,381.

The existing Melbourne marshalling yards, whilst ideally located having regard to the task they have to perform, have grown up piecemeal over the years without any opportunity for unified planning, and as a result are not only costly to operate but result in delays to wagons which appreciably reduce the Department's standards of service in the handling of goods, particularly in regard to speed of delivery.

A detailed investigation into the shortcomings of the yards disclosed that provision of a modern automatic hump shunting yard (which is praticable within the space available) will revolutionize existing standards of service and at the same time yield very considerable economies—both direct savings in the cost of operating the yard itself and indirect savings from quicker turnround, and thus increased earning capacity, of locomotives and rolling stock.

To enable the new yard and the various inward and outward goods sheds to operate as a fully integrated and efficient whole, the functions of the existing sheds are being revised as the work proceeds, and additional shed space is being provided in order to eliminate the carrying out of loading and unloading work at uncovered platforms.

Both for financial reasons and because of the intricate nature of the staging work required to rearrange the yard without interrupting the flow of traffic, the project will take some four to five years to complete.

(115) Melbourne (Flinders-street "E" Signal Box)—Richmond; Provision of two additional tracks on Burnley line, including associated works and structures and acquisition of land.

This and the two following sub-items embrace all works still required to enable the desired standard of peak period services to be provided on the Box Hill and Glen Waverley lines.

Over recent years train services have been progressively improved on both lines as the result of completion of the following works:

East Malvern-Glen Waverley: Duplication of line.

Richmond-Burnley: Two additional tracks.

Hawthorn-East Camberwell: Third track signalled for two-way running.

This particular sub-item provides for elimination of the two-track bottleneck still existing between "E" box (Jolimont Junction) and Richmond. Two additional tracks must be provided in this section before any more peak period trains can be run on either the Box Hill or the Glen Waverley lines.

An essential feature of the work is construction of a flyover near Richmond to rearrange the normal "staggered" running to the "parallel" system which is in force between Richmond and Burnley, and which has greatly simplified the reconstruction of East Richmond station and the junction track work at Burnley.

(116) Burnley-Hawthorn: Provision of additional track, including acquisition of land.

The existing two-track bottleneck between Burnley and Hawthorn results in delays to both express and stopping trains whenever out of course running occurs, and also precludes the running of additional peak period trains on the Box Hill line beyond Burnley.

Provision of a third track, signalled for two-way running, will overcome these difficulties and form an essential link in the overall programme designed to permit improved peak period services to be provided between Melbourne and Box Hill.

During the currency of the Act work will be concentrated mainly on reconstruction of the Swan-street bridge over the railway, to make way for the third track.

(117) East Camberwell-Mont Albert: Provision of additional track, including acquisition of land and roads.

This work was authorized under previous Loan Acts.

Total expenditure to 24th August, 1968, \$34,387.

This is the third link in the programme of works designed to upgrade peak period train services on the Box Hill line.

Extension of the existing Hawthorn-East Camberwell third track to a convenient point between Mont Albert and Box Hill will, in conjunction with the works outlined in the previous two sub-items, permit additional stopping trains to be run to Box Hill, with a consequential acceleration of long distance trains over this section.

Funds are required during the currency of the Act to enable the work to proceed in conjunction with the Canterbury grade separation project (sub-item 106).

ITEM 1-WAY AND WORKS-continued.

Sub-Item.

(118) Newport-Geelong: Duplication of line, including acquisition of land.

This work was authorized under previous Loan Acts.

Total expenditure to 24th August, 1968, \$3,072.816.

The capacity of the existing single line is inadequate for the efficient handling of the traffic offering, and it is proposed to duplicate it section by section as circumstances permit.

The Corio-Geelong and Newport-Werribee sections have been completed, and during the currency of the Act it is proposed to proceed with the earth works and track laying between Werribee-Little River.

For maximum flexibility of operation, two-way automatic signalling is being installed on each track. At a later stage it is proposed to install a centralized traffic control system at Spencer-street to directly control all train movements between Newport South and North Geelong.

(119) Tallarook: Provision of standard gauge crossing loop, including acquisition of land.

This work was authorized under the previous Loan Act.

Total expenditure to 24th August, 1968, \$16.571.

Since the Albury-Melbourne standard gauge line was opened in January, 1962, goods traffic has steadily increased, and for the six months ended 30th June, 1968, the total contents tonnage handled over the line increased by 720,000, or 175 per cent., compared with the corresponding period in 1962.

The stage has now been reached at which, if further traffic growth is to be catered for without congestion and delays to trains at busy periods, additional crossing loops must be provided.

In the first instance it is proposed to construct a loop at Tallarook, utilizing portion of an existing 5' 3" gauge dead-end siding to reduce earthworks and trackwork costs. Points and signals at the loop will be controlled from the centralized traffic control panel at Spencer Street.

Funds are required to enable the work to be completed during the currency of the Act.

ITEM 2—ROLLING STOCK, EQUIPMENT, MACHINERY AND OTHER WORKS. Sub-Item.

(201) Locomotives.

This sub-item provides for expenditure during the currency of the Act on the Department's diesel locomotive programme, which is aimed at eliminating steam traction from the System by 1971.

Since July of this year there have been no steam locomotives in regular daily use in Victoria, but seven are retained in working order for special steam passenger excursions (including "Puffing Billy"), and others, which have been stored, will have to be brought back into service to meet peak traffic requirements, particularly during the grain harvest period, until such time as additional diesel locomotives have been purchased.

The amount provided is to meet final payments on six "X" class locomotives of 1,800 h.p., ten "T" class units of 950—1,050 h.p., 25 "Y"

ITEM 2—ROLLING STOCK, EQUIPMENT, MACHINERY AND OTHER WORKS—continued. Sub-Item.

(201)—continued.

class units of 650–750 h.p., (all of which are in service) and a further eleven "T" class units of 950—1,050 h.p., which will be delivered by early in 1969. Five of the latter locomotives will be fitted with special controls to make them suitable for hump shunting work in the new Melbourne yard (sub-item 114).

Provision is also made for the purchase of a number of rail tractors for shunting work.

(202) Suburban electric trains.

A continuous programme of construction of suburban electric trains is necessary, both to provide for growing outer suburban traffic and to replace outworn rolling stock. First to be replaced will be the outmoded swing-door cars; after all these have been scrapped, the oldest of the "Tait" type sliding-door cars will progressively become due for replacement.

Since 1956, sixty new trains (ten of 8 cars and fifty of 7 cars) of the "Harris" type have been placed in service, and the number of swing-door trains still running has been reduced to nine.

Tenders have just been invited for the next major suburban train contruction programme, in which further modifications in design, compared with the "Harris" trains, are proposed.

During the currency of the Act funds are required to enable a commencement to be made on this programme, and for six trailer carriages being built as prototypes in order to test, under operating conditions, certain design innovations under consideration for incorporation in the new trains.

(203) Country carriages, brake vans and sundry stock.

The amount provided under this sub-item is required to meet Victoria's share, during the currency of the Act, of the cost of constructing two joint stock second-class saloon-type sitting carriages and six combined power/brake vans for the Melbourne-Adelaide "Overland" express. The latter vehicles are required to enable this train to be converted from the "unit" to the "head-end" system of power supply for lighting, heating and air conditioning.

(204) Self-propelled rail cars and trailers.

The amount provided under this sub-item is required to meet the cost of two 77 ft., 70 m.p.h. air conditioned rail cars which are being purchased, with funds specially provided by the Government for the purpose, for service on the Ararat-Hamilton-Portland line.

(205) Wagons.

The amount provided is to meet the estimated expenditure during the currency of the Act on the purchase of a second batch of 100 bogie hopper grain wagons (for which a special allocation of funds has been provided) and on the construction of approximately 275 new wagons and vans in Departmental workshops.

ITEM 2—ROLLING STOCK, EQUIPMENT, MACHINERY AND OTHER WORKS—continued. Sub-Item.

(205)—continued.

In order to provide for modern competitive conditions, new construction is being concentrated mainly on high-speed bogie vehicles for general goods and specific traffics, including containers, steel, cement, oil products, and pipes for natural gas projects.

All new vehicles are fitted with roller bearings, which practically eliminate the possibility of hot boxes, and are suitable for bogie exchange between 5' 3'' and 4' $8\frac{1}{2}''$ gauges.

(206) Rolling stock equipment, machinery and other works, including road motor vehicles.

This sub-item provides for the purchase of plant and machinery for rolling stock workshops, and the purchase of road motor vehicles including departmental cars, buses, goods vehicles and vehicles for servicing, inspection and breakdown purposes.

ITEM 3—CONSTRUCTION OF NEW LINES OF RAILWAY, ETC.

Sub-Item.

(301) Melbourne underground railway (planning and investigation).

This work was authorized under previous Loan Acts.

Preliminary planning and investigation is continuing for the proposed Melbourne Underground Railway, construction of which was authorized by this Parliament in 1960.

The total expenditure on this work at 24th August, 1968, amounted to \$382,722.

The detailed survey of all known existing underground services along the route, as laid down in the Act, has been completed.

With respect to the test drilling carried out, detailed reports including record of results and conclusions reached from laboratory testing of field core samples and in-situ field tests have been completed, except for cores taken from bores recently drilled in the North Melbourne area. Investigation of these core samples will be carried out during the currency of the Act. It is also proposed to carry out a small amount of additional test drilling to supplement the information already obtained.

Examination of the drill cores will provide additional information where the geology is in some doubt and will permit of the completion of the geological cross sections and block diagrams of the underlying rock structure.

Studies of the quantity and quality of underground water along the route are continuing.

Plans for station layouts, points of entrance, &c. are being re-examined in the light of proposed developments along the route, including proposals of the Melbourne City Council for redevelopment of the Swanston-Elizabeth-Lonsdale-La Trobe Streets Square.

Work will be continued on the preparation of contract documents and associated descriptive material for tendering.

ITEM 3—CONSTRUCTION OF NEW LINES OF RAILWAY, ETC.—continued. Sub-Item.

(302) Barry Beach Railway.

This sub-item provides for construction of the new branch line fron the Yarram railway to Barry Beach, authorized by Act No. 7642 of 1967

This line will be used to haul big tonnages of pipes and othe construction materials for the offshore platforms and pipelines required to tap the Bass Strait oil and natural gas fields.

At present all this material has to be offloaded from rail to road vehicle at Welshpool or Toora, and the new line will therefore result in considerable savings in handling costs.

(303) Tyabb to Long Island Railway.

Construction of this new line was authorized by Act No. 7667 o 1968, and funds are required to enable the work to be completed during th currency of this Act.

The initial purpose of the line is to provide a link between the Ston Point line and a new fertilizer works under construction at Long Island of the shores of Western Port Bay.

The line is being so located that it will be suitable at a later date to provide rail access, if required, to other projected industrial development in the area.

(304) Surveys, Plans and Estimates.

This amount covers the estimated expenditure for reports, inspection and surveys, and the preparation of any necessary plans and estimate during the currency of the Act.

(305) Expenditure on other lines which have been or may be authorized by Parliamen for construction.

The amount sought is to cover expenditure, if required, on an new line that has been authorized, or on any new line that may be authorized during the currency of the Act.

nessen geden de la la filosopie de la composition del composition de la composition

er valoradi dia estre i fragoa de vintego da el controlar en processo por la composición de la composición de La tagalista procedi ante el Signa a como como como de la composición de la composición de la composición de l La tagalista procedimento de la composición de

and the participant of the contract of the con

The control of the co