

IDEAL TUBE SYSTEM \$20,000,000 BUT ALTERNATIVE PLANS LESS

Continued From Page 1.

any subway, the city should offer to the present Toronto Railway Company an extension of their franchise for a further term, commencing at such date as the subway to be constructed shall be ready, under which franchise it should be provided that the railway company should build or acquire such additional surface lines within and without the old city limits as the city might require, and should take over and operate any such subways as the city may construct; and that, failing to exact such agreement, we recommend that the city should acquire as early as possible, or uniting at the expiration of the present term of the franchise of the Toronto Railway Company (1912), all existing franchises to carry out and co-ordinate a transit system to be offered to some other operating company which will operate the system as a whole.

(1). Consideration should be given to the possibility of assisting the financing of this work by assessment levied on the property served by radial roads.

(2). On the radial lines, efforts may be made to build up a freight business in addition to the passenger, but it is very little effect in the system undertaken a night freight service.

"We recommend that you should appoint from your council a permanent board of transit to protect this important feature of your city's development."

City v. Corporation.
The report, as it refers to suggested management of the system, says: "We are tempted to refer to the broad question of the responsibility of the municipalities engaging in transportation business. The whole question of municipal trading is full of difficulties and few cities can point to success in constructing and operating such utilities, while many others are burdened with equally considerable failures. We would in perfectly general terms express our preference for private operation of such utilities as transportation in and around cities."

The engineers favor the city building and leasing the right to operate for the reason that the credit of the municipality is generally better than that of a private corporation and it can obtain capital at a cheaper rate of interest, while if an outside corporation should undertake to obtain this capital, they must take the risk of the project, earning their own way. "At the same time the municipality is relieved from any possibility of party politics influencing the operation in general or the appointment of a disliking of employees. There is even much in favor of private enterprises taking hold of the construction, equipment and operation of a public enterprise under official government."

It will often be found that private operation, which is usually conducted under a rigidly defined contract, leads to better service, more economical operation and a more highly strung state of efficiency than most municipally-run enterprises. We refer especially to the operation of lines of transit.

"Even with the complete system of subway, surface and trolley lines, we have outlined and believe to be self-supporting by the year 1921, we would not be understood to favor municipal operation."

On the other hand a street railway is ill advised if it confines itself to the strict letter of the law and does not extend its lines to within reasonable distance outside any city limits at the ordinary fares, when it is more or less evident good business can be obtained."

Present Traffic Figures:
The report first outlines the present system of the street railways, as to routes, management and traffic, and also the radials. The Toronto Street Railway, operating 114 miles of tracks, with 890 cars, in 1909 carried 68,117,961 revenue and 8,157,598 transfer passengers, the Toronto and York Radials (Metropolitan, Mimico and Scarborough divisions) operating 72 miles of single track, with 98 cars, carried 3,595,832 revenue passengers, and the Suburban Railway to Weston, over 5.84 miles of single track, with 12 cars, carried 331,293 paying passengers. The C.P.R. and G.T.R. suburban traffic is very small and is omitted in estimating the probable traffic in any future new means of travel, but it is likely a certain amount would be diverted.

"The situation is very similar to that of Chicago, Boston and many other large cities, in that Toronto lies on the waterfront of a long body of water, so that all expansion of area must take place either along the shore front or away from the water, or, as a combination of the two," says the report. "General considerations seem to show that future expansion will be chiefly in a northerly, nor-westerly and nor-easterly direction." With proper facilities, the northeast section should develop very quickly.

No Unusual Congestion Now.
"Comparatively speaking there is no unusual congestion of traffic," says the report, "the only congestion at the present being confined to Yonge-street. Congestion will of course go on."

"The income derived from the Philadelphia system has been disappointing because the subway was financed in the belief that the rapid increase in traffic on the surface lines would be quickly made good by an increase in traffic on the subway."

Not A Matter of Size.
Coming particularly to a consideration of Toronto's case, the engineers say that "one must clearly dissociate one's mind from the somewhat natural idea that only cities of the largest size are called on to provide themselves with 'exclusive lines' of travel. The topographical and geographical conditions, together with the social customs and earning power of its inhabitants may make such construction desirable, even though the city be of comparatively small size."

Toronto, in comparison with most cities, obtains a good service at comparatively low rates. We see the suburban condition in which Toronto finds itself owing to the Toronto Railway having the sole right to work its lines within the old city limits until 1921. We know the existing but not meantime serious congestion of traffic at the lower end of Yonge-street. We know the inevitable increase of population and the equally inevitable and quicker increase of travel per head of population. We know that the growth of the city is pushing suburban residents further and further away from the centre, and we know the danger which any restriction to the growth of traffic has upon the Toronto case. We have seen a high number of lines per head per annum and one is forced to the conclusion that Toronto's crowding in at least seriously considering the provision of some means of exclusive transportation."

Methods of Transit.
"Consideration is given to the various means of transit. The deep level subway has its advantages in construction, but is inconvenient in acquiring the carriage of passengers below the level of the streets."

The shallow subway, reached by stairways, is more expensive to build, and causes greater disturbance to streets, but the transit facilities offered are much better.

Shallow Subway.
"We consider that in Toronto conditions are favorable to the shallow subway type," says the report, "but we are of the opinion that it is not wise for the city to adopt a subway system of this type within the city limits solely in conjunction with a system of radial lines outside the city limits or radial lines outside a system of much territory as possible now unprovided with transit facilities."

"Subways should be provided with stations at long intervals, except in the heart of the city, if the surface lines act in conjunction as short distance distributors of traffic, while the function of the subways is to carry the people rapidly. A subway cannot be operated to the best advantage financially or to best serve the public if operated only in conjunction with radial lines."

Included in the Estimates.
The estimates presented include cost of construction of tracks, signals, electrical equipment and lighting, supply of rolling stock, provision of car yard and repair shop, and cost of particular locality is assigned for the surface provisions, as it is assumed that land can be obtained at about 50 cents per square foot in convenient localities. The estimates also include contractors' profits, engineering costs and carrying charges during the construction period. No credit is taken for the material excavated and used for reclamation purposes, such as might be possible on the water front.

The "ideal system," suggested, would form part of a "circular" system which the city may require at some future date. This would be complete along way through its northern part along St. Clair-avenue, its lower eastern portion passing along Broadview, Danforth and Woodbine-avenues, north to Yonge-street, and west to the water front, north to Spadina-avenue, north to Bloor-street, west to Dundas, and north to Westwood-avenue, linking with a radial section to St. Clair-avenue, east to Yonge-street, and along to the east of East-avenue, and south via Don Mills-avenue to Danforth-avenue, where the

subway would carry its south end from New-avenue to Queen-street, returning west via Queen, King and Front-streets to Yonge.

The scheme is divisible into three main portions: (1) A line up Yonge-street, Wellington to St. Clair. (2) A line from Broadview and Danforth to Front and Yonge. (3) A line from Front and Yonge to Dundas and Keele. The estimate is \$23,470,000, including \$1,755,000 for construction and \$298,000 for carrying charges during construction. Section one would cost \$6,100,000, including \$232,000 for carrying charges; section 2, \$11,950,000, including \$458,000 for charges; and section 3, \$6,420,000, including \$240,000 for charges.

length, while the route is not so good. As an addition, the engineers "merely suggest" the consideration of an eastern branch on the line of Bloor-street, necessitating the building of a double-decked viaduct to connect Bloor with Danforth, crossing Rosedale Road. The viaduct, "a desirable and logical thing to do as a civic improvement," would open up the north Danforth district. The cost of the route is placed at \$2,513,000, including \$1,400,000 for viaduct and \$1,100,000 carrying charges.

For Present Needs.
Reporting on "the necessary arrangements for handling the traffic" under present restrictions, the engineers "can only recommend the construction of one subway line from the centre of present density of traffic to the present point of the old boundary line (from near the city hall northwards) but this line, if constructed now, would require the assistance of the city to carry it."

Considering the question of financial results likely to be obtained, two aspects are presented: (a) A Yonge-street subway in opposition to street cars, (b) the ideal subway scheme operated in conjunction with the present system and with feeders extending six to eight miles from the city hall.

In the first case, the street railway would still retain the short haul traffic, while the function of a subway is to move masses of travelers rapidly. Attempting to compete with the short haul traffic, failure may be the result. Estimating three years to construct the subway up Yonge-street, there should be an annual traffic of 7,000,000 passengers. Assuming 23 miles of single track radiating from this district, there would be a deficit the first year of \$250,000. Increase of traffic is estimated at 10 per cent. per annum.

A Surplus.
Operated with the street railway, gross receipts should be \$5,000,000 the first year, with cost of operation at 65 per cent. Assuming the real value of the entire franchise in 1921 as \$41,500,000 and traffic at 220,000,000 passengers a year, "as a careful and economical concern, it should produce at least a moderate surplus."

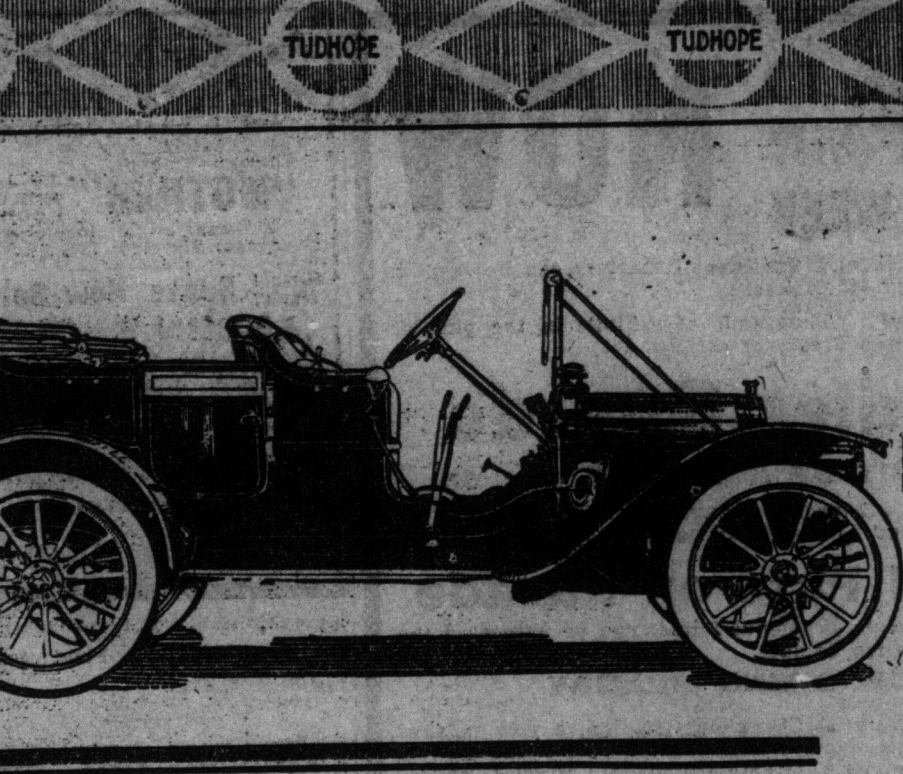
Depressing of the trolley lines under Yonge-street for any distance deemed desirable to reduce congestion could be done by constructing a subway loop. Where the portals are the street should not be less than 200 feet wide. The cost, exclusive of purchasing of property, would be 350 per foot.

Engineers Strongly Recommend.
Entrance to subway is favored thru buildings, by arrangement with the owners, rather than from sidewalks. The general type of intermediate station recommended is of two tracks and two outside platforms. For termini stations, the stub end type is suggested. The subway is capable of carrying 25,000 to 30,000 passengers per hour in one direction, and the stations (50 feet long) are designed for half this capacity. The car proposed would be 50 feet long over all, with 8 feet outside width and a width of 65 feet for the body, cement floor and three doors on each side.

Varied Gauge a Difficulty.
The engineers regret that track gauges around Toronto are not uniform, and this is "inimical to the proper future growth of traffic facilities." For the subway is recommended a standard 4 ft. 8 1/2 inch gauge, which is that of steam railways, which do not alter. It is also the gauge of the Metropolitan line, along which most development is expected.

For ventilation, exhaust fans would be established at suitable points, while block signals are planned for.

In making the estimates, allowance has been made for maintaining the street railway tracks. Geological conditions are found to be in general favorable to rapid and cheap construction.

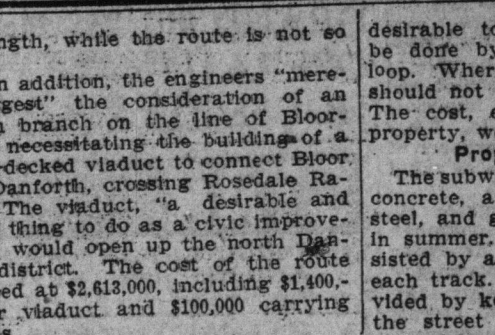
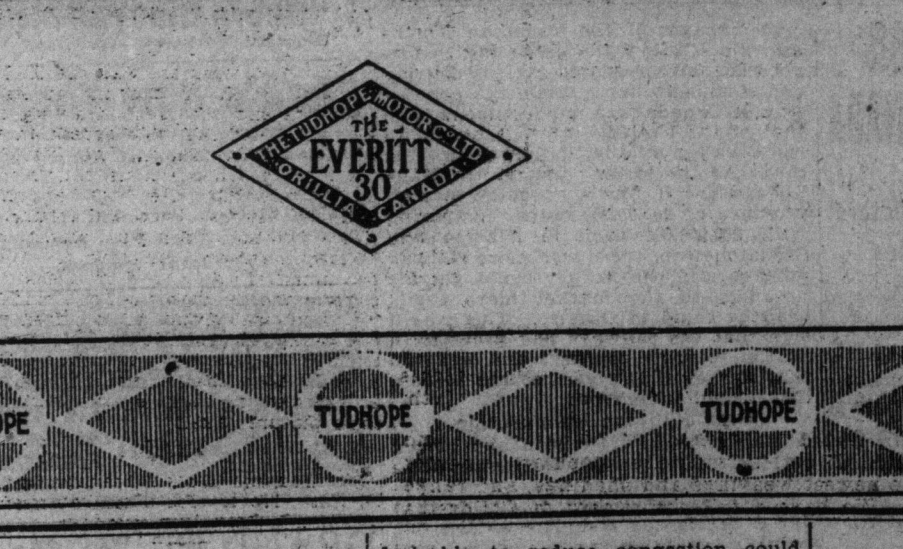


MOTORISTS AND DEALERS will be greatly interested in the first showing of the new "EVERITT 30" as "Made in Canada" by TUDHOPE

The exhibit will be found in the Transportation Building at the Canadian National Exhibition.

It should be noted that the "EVERITT 30" in its entirety is manufactured in the plant of TUDHOPE at ORILLIA, and is NOT AN ASSEMBLED CAR. This insures to the purchaser interchangeability of parts, which may be required at any time.

On orders placed at the Exhibition date of delivery will be guaranteed. Applications from dealers for agencies will be considered. Territory is now being allotted.



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At the Canadian National Exhibition in the Manufacturers' and Transportation Buildings

OBJECT TO TROOPS

Protests Against Participation of Soldiers in Eucharistic Congress.
OTTAWA, Sept. 1.—Has the Roman Catholic Church the right to order the Canadian militia to participate in processions and functions designed to honor that special church in this land?

This question has been raised in its most acute form by the announcement that the pontifical legate, Cardinal Vannutelli, will upon his arrival in Montreal on Saturday evening next, be received by a guard of honor of the Duke of York's Canadian Hussars, from the wharf to the residence of Lord Strathcona, and that the militia of Montreal generally would participate in the fest connected with the eucharistic congress.

S. F. Jarvis, assistant deputy minister of militia, has replied to the objection that application had been made by certain militia units in Montreal for leave to turn out officially to take part in the parades of the eucharistic congress, but such application had been made that if any individual member of a militia unit desired to turn out in uniform unofficially no objection would be taken.

It is officially stated to-day that the troops ordered by the government as an escort for Cardinal Vannutelli are a squadron of regulars, which is to be brought from St. John's, Quebec, for that purpose.

ALL ABOARD, NORTH TORONTO

New Train Service Between Toronto, Montreal and Ottawa.
In order to better accommodate the citizens of Toronto, especially those residing in the west and north ends of the city, the Canadian Pacific has arranged, commencing Monday, Sept. 5, to operate a train in each direction daily, except Sunday, between West Toronto and Montreal. Trains to run via North Toronto Station, Yonge-street, north. The additional service will be as follows:
Leave West Toronto Station 9.45 p.m.
Leave North Toronto Station 10.00 p.m.
Arrive Montreal 7.00 a.m.
Leave Montreal 10.45 p.m.
Arrive West Toronto Station 8.05 a.m.

Inasmuch as these trains will not have to depend on any connection, they will leave sharply on time, and the service will not be greatly appreciated, particularly by those living in the west and north ends of the city. These trains will be of Canadian Pacific standard, and will carry coaches and sleepers to and from Montreal and Ottawa.

FEARS FOR THE CROPS

Heavy Rains in the Brandon District May Leach the Grain.
BRANDON, Sept. 1.—(Special)—Heavy rains give rise to fears of damage to the wheat crop. A period of wet weather is promised, and the grain is in danger of leaching. Fall plowing will be materially helped, however, if the weather clears up in a reasonable time. Reports show that three hundred men are needed for harvesting operation in this district. A shortage is due largely to lack of information regarding the needs of farmers. Circulars distributed on excursion trains stated that only 14 men were needed here, and consequently the workers have gone west. The same scarcity of workers is reported in the building trade.

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Rev. G. M. Atlas term for forgery. Middleton is sure fact that "Bag" the right side of the law, which is a car which dis-

Boy, who halls from and wandering in dress sent to the at night. He said his aunt here, who the fair and lost

Were stolen, an ancient influence in the bed which he feather beds, the Kilip of Brampton, dy will take him a peddler and was license number,