

The operation of the cars should cause as little inconvenience and disturbance to the residents on the streets traversed or to the general traffic as is compatible with well-laid lines, well-equipped cars in thorough order, and a properly conducted service.

Cars for City and suburban railways should be of a class larger than generally in use on City lines. They should be light, strong and well-finished, as in the case of those used on steam railways. They should be divided into compartments for passengers, baggage, express, etc., and perhaps a smoking-room. The seats should be of the reversible pattern, placed on each side of the central aisle, the car-body should be carried on double trucks of the best design, fitted with heavy axles, and wheels not less than thirty inches diameter, while the tread of the wheels should be broader and the flanges deeper than are ordinarily used on City lines.

On each truck should be hung the most powerful class of electric motor. The cars should be fitted with the latest and most approved pattern of power and hand brakes. In every respect the cars should be of modern design and fully equipped for night and day service.

Cars purely for freight service should be from 18 ft. to 30 ft. in length, strong in frame and trucks, etc., of neat design, with protection for motor-man and conductor, and fully equipped. Short cars may rest on single trucks, while the longer ones should have double trucks, as under passenger coaches.

As the gauge of the Toronto system presents some difficulties, at least presently, so far as one of the suburban lines is concerned, ancient history in this feature may here be referred to. The Toronto railway track originally consisted of a light strap rail with a flat base extending below and in from the flange-way of the car wheel. The upper base was used by the cars, which were drawn by horses, while the lower base was used largely by loaded and light vehicles. Thus the gauge of the system (4'11") was established principally as a convenience for general travel.

On submitting specifications and conditions for the re-letting of the franchise in 1891 the City Engineer explained to the Board of Aldermen that through the improved condition of pavements and a change in gauge of vehicles, the necessity for providing "ways" for general traffic had largely disappeared, and he accordingly recommended that the specifications call for a change of gauge to that of the continental standard, i.e., 4' 8½". To this the Board dissented, as their desire was to prevent the transfer of freight cars over city lines, as these cars, being very heavy, would in time depress the pavement and thus cause inconvenience to users of streets, on which the lines were laid, and expense to the City for extra renewals and repairs, etc.