

is called upon by the proposed agreement to guarantee over half the cost of the proposed line.

Conclusion.—Your board has reached the unanimous conclusion that it is not in the interest of Hamilton to enter into the proposed agreement.

CANADIAN SOCIETY OF CIVIL ENGINEERS ELECTIONS AND TRANSFERS

At a meeting of the council of the Canadian Society of Civil Engineers held October 30th, the following elections and transfers were announced:—

ALEXANDER, FREDERICK WILLIAM, of Calgary, Alta., transferred from associate member to member. Mr. Alexander was with the Bangor and Aroostook Railway for several years; also with the Restigouche & Eastern Railway. At present he is division engineer, C.P.R., Calgary, Alta.

BROWN, LE ROY, of Sault Ste. Marie, Ont., transferred from student to associate member. Mr. Brown is a graduate of the University of Toronto, class of 1915, and is at present principal engineer in charge of construction and operation of hydro-carbon recovery plant, Toronto Chemical Co., Sault Ste. Marie.

BUTEAU, JOSEPH AMEDEE, of Quebec, B.A.Sc. Ecole Polytechnique, 1909, elected as associate member. From 1911 to date Mr. Buteau has been a professor at Ecole Technique, Quebec.

CATON, EDWIN VICTOR, of Winnipeg, elected as member. Mr. Caton is chief engineer of the civic light and power department, Winnipeg.

CHANDLER, RALPH BORTHWICK, of Port Arthur, Ont., elected as associate member. Mr. Chandler is a graduate of Toronto University, class of 1912, and is at present resident engineer in charge of construction of hospital elevator for Grain Growers' Grain Co., Limited, and terminal elevator for Saskatchewan Co-operative Elevator Co., Limited, at Port Arthur, Ont.

FERGUSON, ALEXANDER DALE, of Winnipeg, transferred from student to associate member. Mr. Ferguson was born at Cardiff, South Wales, in 1890, and is a graduate in civil engineering, University of South Wales, class of 1911. He is at present draftsman and office assistant to division engineer, Hudson Bay Railway, The Pas, Manitoba.

GENDERS, PERCY ROBERT, of Regina, Sask., elected as associate member. Since 1913 Mr. Genders has been employed in the Surveys Branch, Land Titles Office, Regina, Saskatchewan.

HANNA, JOHN JEFFERY, of Calgary, Alta., elected as associate member. Mr. Hanna is a graduate of Toronto University, class of 1914, and was with the C.P.R. for some time. Prior to enlistment in 1914 he was assistant in the roadways department, Calgary. He is now lieutenant with the 3rd Tunnelling Company, Canadian Engineers, France.

HOWARD, LAWRENCE JAMES MEREDITH, of Ottawa, elected as associate member. For a number of years Mr. Howard was with the C.P.R. During 1916 he was on the valuation staff of the Commission of Inquiry into Railways and Transportation, and at present is engaged in valuation work for the Imperial Munitions Board.

IRVINE, JOSEPH HOLMES, of Prince Albert, Sask., transferred from student to associate member. Mr. Irvine

is a graduate in civil engineering, Manitoba University, class of 1912. From 1913 to 1915 he was assistant city engineer, city of Prince Albert. He is at present lieutenant, 15th Canadian Reserve Battalion, on active service.

MANN, HENRY CECIL, of Duncan, B.C., elected as associate member. Mr. Mann was born in Dublin, Ireland, in 1874. At present he is assistant to the district engineer, Department of Public Works, Victoria.

MCDONALD, DUNCAN HAROLD, of Antigonish, N.S., elected as associate member. From 1912 to date Mr. McDonald has been assistant engineer, Public Works Department of Canada, under District Engineer E. G. Millidge at Antigonish, N.S.

PACY, ERNEST HAROLD, of Montreal, transferred from junior to associate member. Mr. Harold was for three years draftsman and shop inspector for the Dominion Bridge Co., and has also been with the C.P.R., I.C.R. and G.T.R. as inspector of bridges. From 1914 to date he has been employed by the Board of Engineers, Quebec Bridge, in an engineering capacity.

PARR, FRANCIS HILL PARKER, of Winnipeg, elected as assistant member. Mr. Parr was born at Darlington, England, in 1874. During 1913 he was engineer of the rural municipality of Kildonan, Man. Since 1914 he has been on the teaching staff of the Kelvin Technical High Schools, Winnipeg. He is a member of the Institute of Municipal and County Engineers, England.

PATRICK, GILBERT HASTINGS, of Strathmore, Alta., elected as associate member. Mr. Patrick is at the present time senior canal superintendent, Irrigation Branch, Department of Natural Resources, C.P.R.

RANDALL, HENRY EDWARD, (JR.), of Montreal, Que., elected as junior member. Mr. Randall is a graduate of the Massachusetts Institute of Technology, class of 1913. He is at present with the Shawinigan Water and Power Company in charge of the sales department in an engineering capacity, and also has to do with distribution of electric power.

STEVENS, HUGH EDMUND, of Courtenay, B.C., elected as associate member. Mr. Stevens was born at Maidenhead, England, in 1883. From 1902 to 1912 he was with the C.P.R. In 1912 he was resident engineer on the Kettle Valley Railway lines, Penticton, B.C. At present Mr. Stevens is assistant to the district engineer, Provincial Public Works Department, Courtenay, B.C.

YOUNG STEWART, of Regina, Sask., elected as associate member. Mr. Young is a graduate of Toronto University, class of 1912, and at present holds the position of surveyor and engineer for the Department of Highways, province of Saskatchewan.

The largest hydraulic power installation in South Africa is at Barberton, and is capable of developing 3,000 horsepower. Only about 1.1 per cent. of the power of the Union is obtained from water.

With the County of Renfrew joining the good roads movement, there are now 32 counties in line in the Province of Ontario. Renfrew will have 214 miles of improved highway. Five counties of the province have not as yet entered the movement.

Ships of concrete are to be built near Detroit by the Torcrete Shipbuilding Company, recently organized in Chicago. The company is now negotiating for a suitable site on which to begin building 1,200-ton reinforced concrete vessels, after what is known as the Torcrete system. Steamers are to be built here for the Great Lakes service. Additional yards will be established later. It is said, in New York, New Orleans and Los Angeles.