Technical and Bibliographic Notes / Notes techniques et bibliographiques

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This paper reaches every week the Town and City-Clerks, Town and City Engineers, County Clerks and County Engineers Purchasers of Municipal Debentures and leading Contractors in all lines throughout Canada.

Vol. II.

SEPTEMBER 12, 1900

No. 32.

THE CANADIAN CONTRACT RECORD,

As an Intermediate Edition of the "Canadian Architect and Builder."

C. H. MORTIMER PUBLISHING COMPANY of Toronto, Limited, Publishers.

CONFEDERATION LIFE BUILDING, TOKONTO.
Telephone 2462.
Branch Office:
Imperial Bustding. Montreal.
Telephone Main 2259.
Advertising Rates on application.

ENDER FOR CONGRETE ARCH

Scaled tenders, addressed to Malcolm Stalker Esq., Mayor, will be received up to MONDAY, SEPT. 2411, next, at four och ch. p.m., for the construction of a concrete arch over mit race in the Town of Walker too, according to plans and specifications which can be seen at the Clerk's office, Walkerton, crat the office of Messes. Moore & Herry, London, Ont. Tender to be accompanied by a marked cheque for 5 (five per cent.) of amount of tender. The successful tenderer will be required to furnish securities for the due fulfilment of the contract. No tender necessarily accepted.

H. CLARK.

H CLARK, Chairman Streets Committee.

PORT HOPE WATERWORKS

Sealed tenders, addressed to R. Gray, Esq., will be received, by registered letter only, up to 6 octock p.m. on THURSDAY, THE 2070 DAY OF SEPTEMBER INSTANT, for each or the whole of the following works, viz:
For supplying and fixing in position upon foundations to be built by the Water Commissioners

Contract No. 1—One Compound Duplex Pumping Engine, Capacity 1,000 Imperial Gallons per minute, together with all Steam and Exhaust Pipes, from Boilers to Pump, to Condenser and to Atmosphere, with all necessary Valves, Suction Pipe, Etc., as per plan and specifications cations

Contract No. 2—One Steam Boiler 14 feet long by 66 inches diameter, as per plan and specifications.

Contract No. 3—One Steel Water Tower, Capacity 200.000 Imperial Gallons, 25 feet diameter by 65 teet high, as per plan and specifications.

Contract No. 4—To Build Stone Foundations. as per plan and specifications for Water Tower and Fump, and Setting up Boiler in Brick

Plans and specifications can be seen and forms of tender procured at the office of R. Gray, Exq., Port Hepe, Ont., and R. E. Speakman, C.E., Canada Life Building, Toronto, from whom any further information may be obtained.

N. B.—A marked and accepted bank cheque for 5 per cent, of the amount of contract must accompany each tender, or it may be ruled out as informal.

The Water Commissioners do not bind themselves to accept the lowest or any tender.

Pump manufacturers will be allowed to submit their own special designs, with full detail specifications.

R. GRAY.

R. E. SPEAKMAN, C.E., Consulting Engineer, Canada Life Building, Toronto. Sept. 10, 1900.

designs, with the osmill,

R. GRAY,
Secretary to Water Commissioners,
Port Hope, Ont.

SHELBURNE WATER WORKS **Notice to Contractors**

Sealed tenders will be received by the Acting Reeve of the Village of Shelburne until THURSDAY, THE 20TH DAY OF SEPTEMBER, 1900, at 5 o'clock, p.m., for the construction of additions to the system of Water Works now in the said-Village.

Plans, specifications, contracts, etc., may be seen, and form of tender and instructions to bidders may be obtained at the office of D.C. Dunbar, Village Clerk, on and after September the 17th, 1900.

G. M. VANCE, Acting Reeve-

C. R. WHEELLOCK, Engineer.

NOTICE TO CONTRACTORS

Sealed proposals will be received up to 7 o clock, p.m., of FRIDAY, SEPTEMBER 14711, 1900, by the Township of Finch, for the construction of a

SEWER

in the Village of South Finch, in the County-of Stor-

in the Vilege of South Finch, in the County-of Stormant.

The work will consist of approximately six hundred and sixty-eight cubic yards of Rock Excavation; one thousand, one hundred and five cubic yards of Earth Excavation; the laying of about two thousand, three hund ed and eighty-seven feet of 6-inch Drain Pipe; the building of three Catch Hains and two Man-Holes. Specifications for the above work and copies of instructions to bidders may be had by applying to John A. Cockburn, Clerk of the Township of Finch, Crysler, Ont., or to Geo. L. Brown, County Engineer, Morrisburg Ont.

All tenders must be made on the blank forms furnished upon application to the undersigned.

The Township reserves the right to reject any or al bids.

JOHN COCKBURN, Clerk Township of Finch.

GEO. L. BROWN, Engineer.

TENDERS FOR Iron Water Pipe

Special Castings

Scaled tenders, addressed to Ald. W. G. Bell, Chairman Fire, Water and Light Committee, for the supply of a quantity of Cast. Iron Water Pipe and Special Castings, will be received at the office of the undersigned up to \$130 p.m. on

Monday, September 17, 1900.

Specifications and form of tender may be obtained at the office of Col. H.N. Ruttan, City Engineer, Winnipeg, Canada.

Each tender must be accompanied by an accepted cheque or each deposit for the sum called for in form of tender supplied, which will be subject to forfeiture in case of failure to enter into a written contract with approved sureties if called upon to do so.

The city reserves the right to reject any or all tenders or to accept any bid which appears advantageous to the City of Winnipeg.

C. J. BROWN. City Clerk.

City Clerk's office, Winnipeg, Canada.

Arnprior Water Works

TO CONTRACTORS

Scaled tenders, addressed to the undersigned, will be received, by registered letter only, up to 6 p.m. on MONDAY, SEPTEMBER 17111, 150%, on each of the whole of the several works required for the Water Workz System.

Contract No. 1. For the supply and delivery F.O.B. cars Arnprior of the required Pipes, Hydrants, Valves, and Special Castings.

Contract No. 2. For the excavation and pipe laying required.

Contract-No. 3. For the erection of the Pump House Building.

Contract No. 4. For an 80,000 gallon Tank on a 75-foot Steel Tower.

Contract No. 5. For two Pumping Engines and one Filter.

Contract No. 6. For two Steam Boilers. Contract No. 7. Bulk-sum for all the above Works.

BIOVE WOLKS.

Plans and specifications can be seen, and "Form of Tender" procured, at the Engineer sodies, Town-Hall, Amprior. A marked cheque for the amount stated in forms of tender must-accompany each tender, or they will be ruled out as informal.

The Corporation do not bind themselves to accept the lowest or any tender.

W. M. HOWE,

Mayor of the Town of Amprior

Amprior, Sept. 1st, 1900.



DEPARTMENT OF RAILWAYS AND CANALS

Lachine Canal

NOTICE TO CONTRACTORS

Scaled Tenders, addressed to the undersigned, and endorsed "Tender for New Lock," will be received at this office until 160 clock on TUESDAY, THE 200 OCTOBER, 1900.
Plans and specifications can be seen on and after the roll of September, 1900, at the office of the Chef Engineer of Railways and Canab, and at the othice of the Superintending Engineer of the Quebec Canab, 190 Notre Dame Street, Montreal, where forms of tender can be obtained.

In the case of firms, there must be attached to the tender the actual signatures of the full mane, the nature of the occupation and residence of each member of the same, and, further, an accepted tank though for the same, and, further, an accepted tank though for the sum of \$15,000 must accompany the tender. This accepted tank cheque must be endorsed over to the Minister of Rainways and Canab, and will be for the work at the rates and on the terms stated in the offer submitted.

The accepted bank cheque thus sent in will be returned to the respective parties whose tenders are not accepted.

The Department does not bind itself to accept the

accepted.

The Department does not bind itself to accept the lowest or any tender.

Describer.

By order, L. K. JONES, Secretary.

Department- of Railways and Canals, Ottawa, 5th September, 1900.

Newspapers inserting this advertisement without authority from the Department will not be paid for at-

Chas. Desjardins, contractor, Montreal, is reported to have assigned, with liabilities of \$55,000.

WATER POWER

BRACEBRIDGE

Scaled tenders, addressed to Alex. C. Salmon, Town Clork, Brace and se, will be received by the Corporation of the Town of Bracebridge until 6 o'clock parts. WED NESDAY SEPTEMBER 1970, 1990, for the construction. धापता का ले व

Masonry Dam, Head Canal, Forebay, Power House and Tail Race.

with appartenances, situated at Bracebridge Falls. Plans and specifications may be seen and forms of tenders. Status of the efficient of the Town Clerk, Bracebridge, Out, the engineer, Niagara Falls, Out, of the Technical Record, Teronto, en and after Saturday Superaler 18t, 1928.

Assembled chapter for the sum of Eight Hundred Bollar must accompany a tender. The boxest of any tender not necessarily accepted.

IOHN THOMPSON, Mayor.

C. H. MIICHLILL C.F., Engineer. Assurt rab. too.



Department of Railways & Canals, Canada

RAPIDE PLAT CANAL

NOTICE TO CONTRACTORS.

NOTICE TO CONTRACTORS.

Sealed tenders, addressed to the undersigned, and ordersed. "Tender for Importements at Upper Entitle of Republishing the Importements at Upper Entitle of Republishing and the reless on SATURDAY, THE 2971 DAY OF SEPTEMBER, 1900, for the works concern must not wearong, stranghtening and Deependers of the Paper of the Rapide Plat Canal.

The order of the section, stranghtening and Deependers of the tenders of Railways of September, 1900, at the office of the United Inguisher of the Department of Railways of Canall. Printed forms of tender can also be obtained at the pain of mentioned.

The order of the section of tender can also be obtained at the pain of the section of the full name, the tender of the section of the full name, the tender of the section of the full name, the tender of the section of the full name, the tender of the section of the full name, the tender of the section of the full name, the tender of the section of the full name, the tender of the section of the full name, the tender of the section of the full name, the tender of the same, and, futther, an accepted hank the uter of the full name, the tender of the full name of \$7500 must accompany the tender. This we need bank cheque must be endorsed over to the Minuser of Kailways and Canals, and will be fetting if if the painess tendering decline entering into contrast further work at the rates and on the terms stated in the ther submitted.

The repetitive to the form of bind itself to accept the lowest of any tender.

repend. The Department does not bind litself to accept the

The Prijustment does not find then to accept the lowest of any tender.

Contractors are specially resified that the conditions requiring the works to be wholly completed by the joth that of Novement, A.D., 1991, will be rigidly enforced, and all privatess for delay exacted.

By order, I_ K. JONES, Secretary.

Department of Railways and Canals, tittawa, cto cepta, 19 n

Newspapers inserting this advertisement without a nth city from the Department will not be paid for it.

CONTRACTS OPEN.

HELWORTH, ONT.-A syndicate has been formed here to bore for oil.

DORUHESTER, ONT .- Chas. Dance is prepairing to build a brick residence.

PORT ARTHUR, ONT.—It is proposed to erect a new municipal building here.

SUNDRINGE, ONT.—Geo. McCormick, M.P., proposes starting a veneer factory here.

Ladner, B. C. The corporation of Delta is offering for sale \$5,000 of deben-

OTTAWA EAST, ONT. The council will likely take up the question of building a police station.

WELLAND, ONT .- The council have authorized the construction of a sewer on Division street.

BEDFORD, N.S .- The new Government rifle range to be built at this place will cost \$30,000.

NORTH COATICOOK, QUE.-It is re-

ported that a new Presbyterian church will be built here.

BARRIE, ONT .- The town council have decided to purchase a new dynamo for the electric light plant.

SANDWICH, ONT.—A by-law was carried here last week to raise \$2,500 to meet expenditure for works.

ROTHESAY, N.B.—It is expected that next year the Netherwood School for Girls here will be enlarged.

FREDERICTON, N. B .- Donald Fraser & Sons, saw millers, state their intention of erecting a pulp mill.

DELHI, ONT.—The township of Middleton will borrow \$7,000 to pay for the construction of drainage work.

BRANTFORD, ONT.—Tenders will shortly be invited for an isolation hospital. Particulars from W. G. Killmaster.

MEDICINE HAT, N.W.T .- By a large majority the ratepayers have voted to raise \$40,000 for a waterworks system.

SHALLOW LAKE, ONT .- The Owen Sound Portland Cement Co. are preparto make alterations in the engine room.

HANOVER, ONT—R. E. Speakman, C.E., of Toronto, has been engaged to prepare plans for a water works system.

MOUNT FOREST, ONT.—Wm. Watson will receive bids, separate or bulk, for repairs to the Woodland Presbyterian church.

CALGARY, N.W.T.—A committee has reported to the council that \$5,000 will be required for waterworks extension and repairs.

HILLSHORO, N. B.—A movement is on foot to erect a large hotel at this place. It is expected that work will be commenced this fall.

MIDIAND, ONT.-R. E. Speakman, C.E., of Toronio, has been engaged to prepare plans for sewerage and water works systems.

ANULREE, ONT.—Tenders have been invited by J. D. Fisher, clerk of the township of North Easthope, for construction of Central drain.

ALMONTE, ONT .- The ratepayers will vote on a by-law on October 20th to raise \$30,00 by debentures to establish an electric light plant.

SUDBURY, ONT.—Bids for the purchase of \$13,500 town debentures are invited up to November 1st. Particulars from Stephen Fournier, clerk.

LINDSAY, ONT.—The town council have authorized the extension of water mains to the Rathbun, Beal, and Rider & Kitchener premises.

INDIAN LORETTE, QUE.—C. W. Wilson, paper manufacturer of Montreal, is negotiating for a site on which to build a pulp and paper mill.

MCOSOMIN, N.W.T.-A. C. Jarvis, sceretary school board, invites offers up to 20th inst. for purchase of \$5000 41/2 per cent. debentures.

WESTMOUNT, QUE.—It is expected that work will be commenced shortly on the erection of a hospital for infectious diseases, to cost \$75,000.

ANDRESSBURG, ONT.—The Front of Yonge & Escott township council have decided to build a steel bridge across the creek at La Rue's mills.

HOPF WELL HILL, N. B .- A provincial Government engineer recently went over the proposed route for a new road between Riverside and this place.

PORT COLUMNE, ONT.—No tenders were received by the council for construction of granolithic walks, in response to advertisement in local papers.

RAT PORTEGE, ONT .- A project is on foot to organize a company to build a rail-way to the Rainy River. It is probable that electric power will be used.

ST. CUNEGONDE, QUE.—The town council has approved of a loan of \$16,000, QUE-The town \$6,000 to pay off standing liabilities and the balance for needed improvements.

HENSALL, ONT .- McArthur & Co. are getting out plans for a new building. - It is understood that A. McPherson, and G. McEwan will also erect new buildings.

ARNPRIOR, ONT .- Tenders close 17th inst. for construction of waterworks system as advertised in this issue. Robert Surtees, of Ottawa, is consulting engin-

WINNIPEG, MAN.—The report of W. T. Jennings, C. C., of Toronto, who was engaged to examine the waterworks building, will be considered by the council this week.

CORNWALL, ONT .- A by-law will be voted on by the ratepayers on September 25th to raise \$19,000 by debentures for waterworks purposes, including extensions and repairs.

BLENHEIM, ONT.—It is reported that the plans of J. L. Wilson & Son, architects, of Chatham, have been accepted for proposed school building here; estimated cost, \$12,000.

ST. CATHARINES, ONT.—Andrew Johnston, secretary waterworks commis-sioners, invites tenders up to the 14th inst., for improvements to caretaker's house at the reservoir.

CHARLOTTETOWN, P.E.I.-W. A. O. Morrison invites tenders up to 20th inst. for erection of brick and stone building for Apothecaries Hall. Plans by W.C. Harris, architect.

REVELSTOKE, B. C.—The corporation will either buy and improve the present waterworks plant of the Water, Light & Power Co., or provide a special supply for fire protection.

PENETANGUISHENE, ONT .- On September 15th the ratepapers will vote on a by-law to grant exemption from taxation on proposed additions to be built to the works of P. Payette & Co.

ST. Louis, QUE—A by-law will be submitted to the ratepayers to grant a bonus of \$25,000 to the Royal Shoe Co.

—An agitation is on foot in favor of sewerage and waterworks systems.

GODERICH, ONT.-The council have given notice of their intention to lay a granolithic walk on the west and south sides of the square, and on the south side of Hamilton street, at a cost of \$900.

LEVIS, QUE.-Tenders are about to be invited for the erection of a station, 175X6S feet, for the Grand Trunk and Quebec Central Railways. A spur line of railway to the wharf will also be built.

SHELBURNE, ONT .- Waterworks extensions requiring 10,000 feet of pipe and 16 hydrants have been decided upon -Dr. J. P. Marshall has purchased property on Main street on which he will erect a building.

REGINA, N.W.T.—J. S. Dennis, Deputy Commissioner of Public Works, invites tenders up to 15th inst. for election of three bridges, over Fulton's creek, Oliver's creek, and Sturgeon river respectively.

COLLINGWOOD, ONT .- Plans have been prepared for the enlargement and improvement of the present dry dock, and the contract will shortly be let.—The Northern Navigation Co. will build a new steel steamer.

WALKERVILLE, ONT.—The Detroit Bridge & Iron Co., of Detroit, have purchased property on the Walker road, in this town, on which to build a branch factory. The Ideal Mfg. Co., of Detroit, will also locate a branch here.

NELSON, B.C.—Plans of the new C.P. R. station to be built here have been re ceived, and contractors will be immediately asked to figure.—Thomas Kennedy, representing an eastern syndicate, has made a propusation to establish a woollen mill

Hattrax, N.S.—The Rova Scotia Panting Company will probably erect a back building at the corner of Granville and Sackville streets.—The foundation has been commenced of a large hotel on St. Margaret's Bay Road, for Capt. Sheppard.

Dichy, N.S.—Prof. Ashley, of Harvard University, has purchased property at Smith's Cove, and intends building a summer residence.—The Department of Public Works at Ottawa invite tenders up to Thursday, 27th inst., for erection of post office at this place.

LISTOWEL, ONT.—W. E. Binning, architect, has taken tenders for new furniture factory, 50 X 116 feet; three stones, with boiler and engine room, 323,36 feet, cement concrete floor, roofing, etc. The heating and dry kilns will be considered at a later date.

WINDSOR, ONT.—A company has been formed here, with S. B. Best as manager, to manufacture handle bars for bicycles.—It is rumored that the Grand Trunk Railway intend building an electric line from Mount Clemens to Detroit, but the report lacks confirmation.

MEMORD, ONT.—The town is offering for sale \$56,000 of debentures, bearing interest at 4½ per cent. The money is required for harbor, railway, and elevator improvements.—M. Moore & Son intend to further increase their electric plant by ine addition of power apparatus.

SYDNEY, B.C.—The Dominion Iron & Steel Co. have purchased property at Louisburg, and intend building piers to facilitate shipping.—It is understood that the Merchants Bank at Halifax will shortly commence its new building, corner Dorchester and Charlotte streets.

BROCKVILLE, ONT.—The Murray Hill Hotel Co. are having plans prepared for improvements to the hotel and island, to cost \$10,000.—The city ensineer has been instructed to secure tenders for construction of sewers on Georgina and Victoria streets and North Augusta road. Bids received up to 20th inst.

HULL, QUE.—A by-law for construction of fire and police station was voted on Monday last. Result not learned.— It is the intention of the George Matthews Pork Packing Co. to build an addition to their factory.—D. M. Dorien and M. Page each intend building two storey buildings.

VICTORIA, B.C.—Supplementary Government estimates have been brought down making a grant of \$20,000 for rehuilding Government House in this city, \$10,000 for roformatory in Vancouver, 10,000 for public schools throughout the province, and \$6,000 for Royal Columbian Hospital at New Westminster.

STRATFORD, ONT.—Mr. Smith, city engineer, has been appointed to survey for a proposed drain in the township of Gray.—R. Banks Barber, architect, has prepared plans for new building to be built by the McDonald Manufacturing Co.; brick on stone foundation, main building 144 x 43 ft. with wing 40 x 86 ft.

WALKERTON, ONT.—Tenders are invited in this issue for construction of concrete arch over mill-race. Tenders close 24th inst.—R. E. Speakman, C.E., of Toronto, has been engaged by the Walkerton Binder Twine Co., Limited, to report upon water power from the Saugeen river, to be used in connection with their new works.

CARLETON PLACE, ONT.—It is reported that negotiations are under way by which a syndicate will purchase Lake Park from P. P. Slater, the intention being to enlarge the hotel, improve the park, and build an electric railway from the C.P.R. to the lake. Steps have already

been taken to secure right of way for the railway. Water power will be used.

RIDGETOWN, ONT. — Malcolmson & Higginbotham, architects, of Detroit, are preparing plans for a municipal building and fire hall for this town; 48 x 80 feet., pressed brick, cut stone trimmings, tile roof, steam heating, electric light oak, interior finish. cost \$15,000.—Geo. Macdonald, clerk Township of Howard, invites bids up to 15th inst. for filling approaches to Arnold Creek bridge.

KINGSTON, ONT.—Power & Son, architects, have taken tenders on alterations to buildings on King street, for Oddfellows' Relief Association.—At last council meeting the question of municipal control of electric light plant was considered.—A scheme is being formulated to raise \$50,000 for the erection of an art and science building for Queens University. The question will be submitted to a vote of the ratepayers.

SARNIA, ONT.—The Sarnia Street Railway Company have stated their intention of starting work at once to change the road to electric power.—There is some talk that the G.T.R. will build a connecting link between this city and Chatham.—Petitions have been presented to council asking for granolithic walks on several streets.—The Botsford-Jenks Co., of Port Huron, Mich., have written the council regarding the erection of a large grain elevator here.—E. Livingstone, of Blythe, may establish a handle factory in this city.

OTTAWA ONT. — Following building permit has been granted: Thomas Birkett & Son, warehouse on Canal street, cost \$14,000.—The city will likely issue debentures to meet current expenses.—A large addition will be built to the Convent of the Daughters of Wisdom on Montreal Road.—The Department of Railways and Canals invite tenders in this issue for improvements to the upper entrance of the Rapide Plat Canal, also for a new lock in Lachine Canal.—The Ottawa & New York Railway Co. have secured the Odonald property as a location for their car shops.

QUEBEC, QUE.—A meeting of the Quebec & New Brunswick Railway Co., of which Hon. John Costiganis President, was held here last week. It was decided to proceed at once with the construction of the road, which will run through the counties of Levis, Bellechasse, Montmagny, L'Islet, Kamouraska, and Temiscouata. Surveys of the route will be made by C. E. Hoare, C.E.—It is rumored that an addition of 200 rooms will built to the Chateau Frontenac hotel.—An American syndicate has leased the old St. Louis hotel and purposes making considerable improvements.

ST. THOMAS, ONT.—The by-law to raise \$3,500 for enlarging and improving the Amassa-Wood Hospital was carried by the ratepayers.—The St. Thomas Street Railway Co. has been re-organized, with the following Board of Directors: E. H. Caughell, president; A. E. Marlatt, of St. Thomas; John W. Moyes, of the Metropolitan Railway Company, Toronto; and W. T. Williams, Toronto, Secretary-Treasurer. It is said to be the intention to complete the road to Port Stanley.—N. Darrach, architect, has been commissioned to prepare plans for additions to the Amassa-Wood hospital.

THOROLD. ONT.—The Niagara, St. Catharines & Toronto Railway Co. intend filling in the trestle work between this city and St. Catharines.—The following by-laws will shortly be submitted to the ratepayers:—To exempt from taxes for ten years the factory purchased by the Imperial Wood Turning Co.; to fix the assessment for ten years on the new pulp mill about to be erected near Stewart's foundry at \$5,000; to vote the sum of

\$3,000 to assist in putting in a railway siding to the Thorold mountain quarries; to exempt from taxes and furnish a certain amount of electric power to the Redeher Mfg. Co.

ONT.-C. B. Harrison is LONDON. about to build a brick veneer residence on King street.—The Board of Works have instructed the city engineer to prepare an estimate of the cost of establishing two filtration beds at the sewage farm. There is a probability that the question of sewage disposal will be taken up by the council this fall.-Moore & Henry, architects, invite tenders up to 5 p.m. of 18th inst., for steam heating of the Mason-Temple Building in this city. - G. Craddock, architect, wants tenders by 4 p.m. of 15th inst., for brick work, stone work, carpentry, painting, plastering, slating, and copper-smith's work, in alterations to house on Dundas street.

HAMILTON, ONT.—Building permits have been granted as follows. Hamilton house, cost, \$5,000. R. A. Lucas, brick Cotton Co., brick addition to dye addition to residence, corner Main and Charles streets, cost, \$700; Wm. E. Watson, two brick dwellings on Cannon street, between Wentworth street and Sandford agenue, cost \$1,700.—A. W. I cene, architect, has been instructed to prepare plans for a building for Morris & Co., to include grocery, floar and feed succ., dwelling and stables.—Permits. Thomas Allan. a brick dwelling or. Cachaine street between Hunter and Augusta streets, cost \$1600, and two brick dwellings on Augusta street, between Cathar ine and Walnut streets, cost \$2600.

ST. JOHN, N. B. The 5-hool Board will ask the Provincial Lebislature for authority to issue bonds for \$14,000 to cover the cost of new school buildings. A movement is on foot to secure a new building for the Young Men's Christian Association.—Ald. Millidge has given notice of motion in council to issue debentures for \$4,000 for waterworks and sewerage systems.—G. E. Lairweather, architect, has taken tenders this week for plumbing and hot water heating for the new Science building for the University of New Brunswick at Fredericton. The Treasury Board of the City Council have been instructed to advertise for tenders for purchase of \$66,500 of debentures. Bids received up to October 12th.—Plans have been submitted to council of abattoir to be built by B. Carrite.

TORONTO, ONT .- The School Board have not yet reached a decision recarding the new school to be erected on Bathurst street.-The Separate School Board have instructed A. W. Holmes, architect, to prepare plans for a new school so be erected on Bond street, to cost \$18,000, and an addition to St. Anne's school, cost \$2,600. Tenders will be invited as soon as plans can be completed.—The town council of North Toronto have engaged R. E. Speakman, C. E., of this city, to report upon the question of ob taining a water supply from springs in the neighborhood, also as to the cost of a new reservoir.-The city engineer has been instructed to prepare plans for a subway, 42 feet in width, at the Lansdowne avenue crossing, at an estimated cost of \$60,000. A by-law authorizing the expenditure will be submitted to the ratepayers.—Tenders have been invited for all trades except carpenter work on pair of buck houses. Plans at 122 Euclid avenue. - The city engineer has recommended the construction of the following works: Macadam roadway on Augusta avenue, St. Fatrick to College, cost \$8,310, and on Bloor street, Lansdowne avenue to Dundas street, cost \$17.300. Block pavement on Huron street. St. Patrick to College, cost \$5,225. Concrete sidewalks—South side Elm ave., Huntley to Sherbourne; west

side Jarvis street, King to Richmond; . north side Queen street, John to too feet west, south side King street, Simcoe to Dorset; west sile John street, Queen to Grange. – Building permats have been granted as follows. A Nicholson, brick residence on Walmer road, near Bernard avenue, cost \$0,000, John Westcott, six brick dwellings, No. 10 Fuller street, cost \$9,000; H.F. Squires, brick dwelling on Brunswick avenue, cost \$3,500.

MONTREAL, QUE.—The Mount Royal Crematory Co. will apply for incorporation at the next session of parliament, with power to erect and operate a crematory.—Arrangements have been perfected by the Grand Trunk Railway Co. for the enlargement of a number of its yards on the divisions between Montreal and Niagara Falls. - Three plans have been prepared for the proposed track elevation on the Grand Trunk railway, between the Bonaventure station and St. Henri. The first submitted at a conference last week calls for, the removal of the sheds and the construction of lifts to handle the freight, the cost of execution being \$3,250,000. The cost of execution being \$3,250,000. The second plan provides for the raising of the tracks, gradually grading down to-wards St. Henri, with arches over the thoroughfare, cost \$2,500,000. The third plan is the elevation of the track to Mountain street, after which grade bridges are to be constructed at the crossings, cost \$1,500,000.—Building permits have been issued as follows: Jos. Ferron, brick building, St. Andre street, cost \$1,500; James Shearer, two storey brick building, 172 Shearer st., cost \$1,500, architect, J. Shearer; F.A. Allard, two story brick building, 53 Lasalle ave., cost \$1,000; M. Lalande, two story brick house, corner Carriere and Laurier ave., cost \$2,000; Thos. W. Peel, 1½ story building, Hood st., cost \$1,500; City Fire & Light Committee, the story building St. Catherine st., cost \$1,500; City Fine & Light mittee, three story building, St. Catherine cost \$16,000. architect, Thos. A. st., cost \$16,000, architect, Reeves; A. Cataford, two story house, Christophe Colombo st., cost \$2,000: R. W. Redford, three story brick residence, 400 Drummond st., cost \$6,000, architect, Robert Findlay; F.W. Molson, three story brick residence, 292 Drummond st., cost \$6,000, architect, Robert Findlay; O. Gagnon, two story brick building, 621 St. Laurent st., cost \$1,000.

CONTRACTS AWARDED.

MOOSE CREEK, ONT.—R. C. Church: Gregory Burns, of Ottawa, contractor.

WHEATLEY, ONT.—Church at Fenwick: W.C. Hunt, this place, contractor.

VICTORIA, B.C.—New Tood block: Thomas Hooper, architect; Elford & Smith, contractors.

WOODSTOCK, N.B .- The contract for steel cells for the county jail has been let to the Small & Fisher Co.

WINDSOR, ONT.—Factory for Windsor Bent Goods Co.. Al-I. Jacques, succesful tenderer; price about \$9,000.

LINDSAY, ONT.-J. Hartnett, of Toronto, is the successful tenderer for the Opps township drain; price \$3,779.

St. Mary's, Ont.—Addition to works of C. Richardson & Co.: Stone work, John Elliott; carpentry, Johnston & Co.

HULL, QUE.—The following tenders were received for erection of fire and police station: Leduc & Cyr. of Ottawa, \$11,950 (accepted), Lebrun & Damour, \$13,200; Jos. Clouthier, Hull, \$13,500; Bo leau & Theriens, Hull, \$12,650 It is understand. understood that the tender of Jos.
Bourque has been accepted by the Dominion Government for new wharf here, at price of \$38,000. There were 35 ten-

ders.
SANDON, B.C.—The following tenders were received for erection of buildings:— M. L. Grimmett Building-Compeau & McCallum, \$1,400: Follott & McMillan, \$1,245; Karr & Wilson, \$1,149: Charles Lambert, \$960; D. J. McLachlan (accepted), \$767; architect's probable estimae, \$1,040. Public School Building—Charles Lambert, \$3,720; Folliott & McMillan, \$3,685; Karr & Wilson, \$3,340; Gordon Sutherland, \$3,225; Duffy & Soper, \$2,850; D. J. McLachlan, (provisionally accepted), \$2,568; architects probable estimate, \$3,000.

OTTAWA, ONT .- The contract for section No. 2 of the Balsalm and Lake Simcoe section of the Trent Valley canal has just been awarded by the Dominion Government to Larkin & Sangster, of St. Catharines, and that for section 3, which carries the canal into Lake Sincoe at Gamebridge, to Brown & Aylmer, of Toronto. The work will be commenced at once, and completed within two years.

—It is reported that the Department of Railways and Canals have accepted the tender of M. J. Haney for the construction of bridge over Hillsboro river at Charlottetown, P. E. I.

TORONTO, ONT.—The city council ive awarded contracts as follows: Asphalt pavement on Dowling avenue, Queen to G.T.R. tracks, Construction and Paving Company, \$12,000; Huron street, Lowther to Bernard, Warren-Scharf Co., \$9,508; cedar block pavement on Shaw street, Arthur to College, Dominion Paving and Construction Company, \$2,-928; macadam roadway on Maple aven-ue, Sherbourne to Glen road, Warren-Schaff Paving Company, \$2,573; Sully street, Arthur to College street, Construction and Paving Company, \$4,060; scoria blocks on York street, Queen to Front, Dominion Paving Company, \$\$,069.

ST. JOHN, N. B .- The following tenbuildings in Carleton: Perkins & Belyea, \$11,390; W. F. Fitzgerald, \$10,100; D. W. Clark & Son, for carpenter work, \$6,320; B. Mooney & Son, for masonry, \$1,700; B. Mooney & Son, for m \$4,750; B. Mooney & Son, for whole

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W. BAILLIE, Secretary.

E. R. WOOD Managing Director

work, \$11,758; Tilly & Clark, \$11,123; H. W. Fairweather, \$12,467; Sproule & Burley, \$11,4 0; J. S. & R. A. Corbett, \$11,366. The School Board have decided

\$11,366. The School Board have decided to accept the lowest tender.—The tender of the Waterous Company, of Brantford, to supply a Hayes aerial track, for \$3,375, has been accepted by the contract. The contract for butts in connection with the rifle range has been jet to John Flood, at \$7,700. The tender of the Montreal Pipe Foundry Co. has open accepted for supply of water pipe, at \$30,50per ton. ton.

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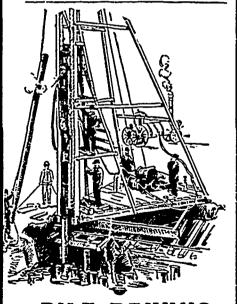
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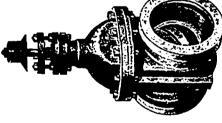
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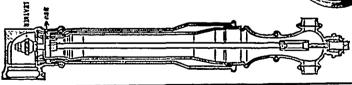
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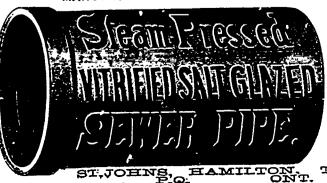
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CULVERT SPECIFICATIONS.* (Continued from last issue).

- 11. All cement furnished must be of a well and favorably known brand of Pottland cement, and shall be approved by the engineer or superintendent in charge of the work. It shall be delivered in barrels or equally tight receptacles, and after delivery must be protected from the weather by storing in a tight building or by suitable covering. The packages shall not be laid directly on the ground, but shall be placed on boards raised a few inches from it.
- 12. The water employed for mortar shall be fresh and clean, free from mud or other objectionable matter.
- 13. Mortar shall be composed of two parts of sand and one part of cement, mixed thoroughly dry, and tempered to the required consistency. It shall be used as soon as made, and any mortar that may have "set" while unused shall be wasted. No variations from the above proportions shall be permitted, unless to make the moriar richer when required in special cases. The thorough mixing and incorporation of the materials will be insisted upon. The dry cement and sand shall be turned over and mixed with shovels by skilled workmen not less than ten (10) times before the water is added; after the water is added, the paste shall be again turned over and mixed by skilled workmen not less than six (6) times. before it is used. Mortar shall be mixed on a flooring to be provided by the contractor.
- 14. The centring must be well formed, an exact semi-circle, of ample strength, securely placed in position, and in every respect conform to the requirements of the superintendent. The ribs must not be placed farther apart than three (3) feet. The lagging shall be three (3) inches thick; the supports of centres shall be substantial and well constructed. Centres shall not be struck without permission from the superintendent.
 - A CEMENT-CONCRETE ARCH CULVERT.
- The culvert shall be built in accordance with the dimensions indicated upon the plans and drawings hereunto attached, and forming part of these specifications.
- 2. Concrete referred to in this specification shall be known as "fine concrete" and "rubble concrete." Unless rubble concrete is definitely specified, fine concrete shall be used.
- 3. The abutments are to be erected within a framework of dressed lumber, closely boarded up against the work as it
- *From the fourth annual report of the Provincial Instructor in Road-Making for Oniario.

- proceeds. The centring for the arch must be well formed, an exact semi-circle. The ribs must not be placed farther apart than three (3) feet, and the lagging shall be three (3) inches thick, dressed to the intrados of the arch. The framework, centring and their supports shall be substantial and well constructed, and shall not be removed less than fourteen days from the completion of the work.
- 4. Fine concrete shall be composed of one part by measure of Portland cement, two parts by measure of sand, and four parts, by measure of broken stone. The concrete shall be mixed in a water-tight box placed close to the work, by first spreading evenly a layer of sand; upon this shall be evenly spread the proportionate quantity of cement, and the two thoroughly mixed in a dry state. To this water shall be added and the whole thoroughly mixed and brought to the consistency of a stiff mortar. The proportionate amount of stone shall then be spread evenly over the mortar, and thoroughly intermixed therewith. The concrete, when mixed as described, shall be immediately put in place and thoroughly pounded and rammed until it is perfectly and uniformly solid, moisture appearing on the surface.
- 5. Within the body of the abutments of culverts, of not less than four foot span, but not nearer than six inches to the surface in any direction, large stones may be placed by hand in layers. These stones shall be in "rack and pinion" order, and not less than two inches apart. Concrete shall be carefully inserted between the stones thus placed and thoroughly packed and rammed so as to fill all voids. Concrete shall cover each layer of stones to a thickness of half the depth of the stones, when another layer of stones may be placed. A facing of concrete is at all times to be kept at least six inches higher than the rubble concrete; and shall be united with the rubble concrete so as to form a continuous and solid mass. This outer rim of concrete shall precede the placing of the rubble work within, and shall be placed around the interior of the casing to a height of nine inches and a thickness of six inches. It is to be thoroughly pounded so that no cavities shall remain when the outside casing is removed. In no instance is the rubble con-

crete to extend higher than one foot below the top of the abutment, which top of the abutment shall be finished with fine concrete. The rubble stone is not under any circumstance to extend into the arch.

- (6) All cement employed in the work must be of a favorably known brand of Portland cement, and approved by the superintendent in charge of the work. It shall be delivered in barrels or equally tight receptacles, and after delivery must be protected from the weather by storing in a tight building or by suitable covering. The packages shall not be laid directly on the ground, but shall be placed on boards raised a few inches from it.
- (7) The stone used shall be granite, quartzite, fine grained limestone, or other equally strong and durable stone, care being taken to exclude soft limestone, friable sand stone, and stone affected by the atmosphere. It shall be broken into varying sizes, the largest to pass any way through a two inch ring. The sand used shall be clean, sharp, silicious and of varying sized grain. The water used shall be clean and care shall be taken not to use an excessive amount, the concrete when mixed and ready for the work to have the consistency of freshly dug earth.
- (S) When gravel is used instead of broken stone, it shall be screened to remove all sand and earthy material. If excessively dirty it shall be well flushed to remove loamy matter, the dirty water being allowed to run off; nor shall it contain stones any diameter of which exceeds two inches.

(5) Care should be taken to make the extrados of the arch a smooth, regular surface such as moisture will not find lodgement. All framework and centring shall be of dressed, well fitted lumber, and the concrete shall be perfectly rammed into place so that all surfaces shall be smooth, without cavities, when the casing is removed.

(10) While the work is in progress, it shall be so arranged that a steady supply of mixed concrete shall pass from the mixing box to the point where it is to be placed. At any time when the work is interrupted before its completion, or at the end of the day, a wet covering shall be placed over the last layer of concrete; before the work of depositing the concrete is resumed, this surface shall be thoroughly flushed with water to remove any foreign material which may havegathered thereon. No concrete shall be laid in wet or freezing weather.

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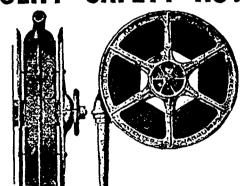
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tive Glass

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PRESSED BRICK, Per M. TORONTO PRESSED BRICK AND TERRA COTTA WORKS. P.O.B. P.O.B. Milton, Ont. Montreal. \$18 00 16 00 14 C0 20 00 18 50 25 50 30 50 33 50 40 50

BEAMSVILLE BRICK AND TERRA COTTA CO.

	Beamsville.	
Red Peerless Facing	\$:5∞	\$10 00
" No. 1	13 00	18 ∞
" No. 2	11 00	16 00
" No. 3	8 <u>s</u> c	13 50
Brown Peerless	20 00	25 00
" No. 1	IS CO	23 00
Buff Peerless	20 00	24 00
" No. 1	1300	23 00
" No. 2	I< 00	20 00
Vittified Paving Brice No. 1	1800	23 00
Vitrified Paving Brica No. 1	1500	20 00

COMMON BRI	CK, Per M	r.
		F.O.B. Montreal.
Common Walling	700 800	7 50 8 00
Good Facing	800 900	
Sewer	8 တ ဝှိလ	850 000
STON.	-	• •
Commo Rubble, per toise,		·.
delivered	10.0	11 00
Large flat Rubble, per toise.		
delivered	14 CO	18 00
Foundation Blocks, per c. ft.	30	50
Granite (Stanstead) Ashlar, 6	30	20
in. to 12 in., rise oin., per ft.		25
Amherst Red Sandstone.		-5
Amherst, N.S., per cub. ft.	1 00	
Kent Free stone Quarries.		75
Moncton, N.B., per cu. ft.	1.00	0.5
River John, N. S., brown	2.00	95
Freestone, per cu.ft	0.5	
ricescone, ber energiese	95	95

Sandstone		
"Scorize" Paving Blocks,		
8"×3½"×5"	55	
"Scorize" Paving Blocks,	33	
8"x3½"x4"	45 00	
Masillon	30 GD	
Ouebec and Vermont rough	J	
granite for building pur-		
poses, per c.ft.f.o.b.quarry	40	1 60
For ornamental work, cu. ft	40	
Granite paving blocks, 8 in. to	40	
12 in.x6 in.x4% in. per M.		**
Granite curbing stone, 6 in.x		50 €
20 in. per lineal foot		
•		70
CREDIT VALLEY		
	P.O.B. ()varries.
Rubble, per car or 15 tons		7 00
Brown Coursing, up to 10 in.,		-
per sup. yard	1	50 to 2 75
Brown Dimension, per cub. ft		60
Grey Coursing, per sup, yard		1 00
Grey Dimension, per cub. ft.		45
- · · · · · · · · · · · · · · · · · · ·		7.3
LONGFORD STO	UNB.	
Rubble, per 30 M. car		5 ∞
Ashlar, per cub. vd		2 00
Dimension, per cub. It		28

SLATE.			
	Toronto.	Mon	treal
Rocting (V square).			
11 red	17 50		20 0
ıı purple ding green	8 sc		10 0
ding green	8 50	7∞	80
olack	7 50	-	6 5
Tena Cotta Tile per sq Orramental Black Slate Roofing	20 00		25 O
Organizate Black State Roofing	8 8o		6 S
CEMENT. LIM	E. etc.		
Damland Company	•		

CEMBRT, LIME	otc.		
Portland Cements —	-		
German per lbl 2 00	3 10	2 55	2 6
London " 2 05	3 00	2 25	2 4
NEWC25 17 2 70	3.00	1 95	2 10
"Joseen" Brand Portland 3 95	3 25	2 70	2 80
"Dyckerbutt " 3 os	3 25	2 75	20
NOTED'S "CONDOP 2 05	3 10	2 65	2 8
English, artificial, per bbl., 2 85	300	2 35	2 4
Belgian, natural, per bbl., 2 50	2 75	200	2 2
Canadian, artificial, " 285	3 20	2 60	2 7
Roman "	-	2 20	2 2
Parian " 525	5 25	5 75	5 7
Keene Superfine "Whites". 21 co	12 00	9 60	100
Keene's Coarse "Whites". 8 oo	8 50	8 50	9 0
Karlstadt" (German) 3 05	3 25	2 75	29
Germania" (German) 3 of	3 25	2 75	29
" Kooster" (Belgian)		2 (5	2 2
"Keystone" (Belgian)		2 05	2 2
"Anvil" (Belgian)		1 95	
"Burham" (English) 2 95	3 00	2 25	2 4
Hydraulic Cements.—			
Thorold, per bbl	I 50		x 6
Ontantion II			- 4

2 50 t	0 1 75 60 1 00 45	4 od, ho 2 o to 12 8 d, 9 d, 6 d, 7 d, 4 d to 50
	5 00 2 00 28	3d, 2d, Cut s Steel Wire
Mon	treal.	*****
7∞	20 00 10 00 8 00 6 50 25 00 6 \$0	ron pi 11 11 12 11 13 11 14 11 16 16
2 55 2 25 1 95 2 70	2 65 2 45 2 10 2 80	Lead pi Waste p
2 75 2 65 2 35 2 00 2 60 2 20 5 75 9 c0	2 90 2 80 2 45 2 20 2 70 2 25 5 75	Adam's 16 to 26 go 28 Gordon 16 to 26 go
8 50 2 75 2 75 2 75 2 (5	2 90 2 90 2 00	Note.—
2 C5 1 95 2 25	2 20 2 05 2 45	Steel B
1 50	z 60 z 60	Sheared

			To	ronto.	Mont	real.
		•••••		1 50		1 50
		• • • • • • •		1 50		1 50
		• • •		7 50		-
Fire Bricks, Ne	wczsti	e,per M	30 ∞	35 ∞	16 00	21 (0
20	ucn	•••	30 00	35 00	10 00	21 10
Lime, 100 lbs	Gre	: 7		30	•	
** 11	W	iite		35		30
Plaster, Calcin	ed, N.	B		3 00		1 50
14 11	N.	. S		2 00		. 8
Hair, Plasterer	s', per	bag	. 8o	1 00		
The following	are t	LKDH he quot			ders fo	nail
at Toronto and	Mont	rcal :				
Cut nails, 50d &	k 60d,	per keg		285		285
Steel `	.1	**		2 95		2 95
כעד א	AILS, I	PENCE A	ND CU	T SPIK	zs.	
od, hot cut, pe	7 200 l	bs		2 35		2 85
o to 12d, hot c	ut			2 95		2 95
Pd. qd.				3 00		3 03
6d, 7d, " 4d to 5d, " 3d, "	"			3 15		3 15
fd to 5d, "	"			3 25		3 25
3d, ''	**	• • • • • • •		3 50		3 50
2d, "	"	•••••		3 85		3 85
Cut spikes, 10			advai	ice.		2 03
Steel Nails, 1	OC. De	r ken e	, *!70			
Wire nails, 3.	e has	C DUICE.				
	س رر.	~ pc.				

				Aron	P	1pe:
ron	pipe	. 34	iach,	per 100	lcc	et\$3.65
"	11	35	**	**	*	3.75
41	H	¥4	11	11	**	4.25
•1	11		**	**		5.75
- 11		234		•	**	***************************************
"	11	21/2	**	17	•	
**	•	2	71	tı	**	
				Lead		lpe:
Lead	pipe	pe:	ъ.,			7C.) is per
اكد	e pir	e, p	er Ib.		••	76. } 15 per 71/2 cent. dis.

G	ılran ized	Iron	.:	
s—Mar's Be	st and Que	n's He	ad and Or	ollo:
24 guage, p	erlb	435C	4%c.	43
uage,	" ····	4%	5	43
	" ····	5	5%	43
Crown—		.,		_
24 guage, p	er 16	414	435	43
uage,	:: ·····	425	4}4	43

Note.—Cheaper grade	s about %	per lb. less.	4%
Atru	ctural I	ron:	
Steel Beams, per 100 l	bs	2 75	2 30
" channels, " angles, "	*****	2 85 2 50	2 33 2 60
" tees, "		2 80	2 6c
Sheared steel bridge pl	late	2	2 35 2 35