

States, but Windsor is the only city in Ontario where it has been laid

These blocks are composed of finely crushed granite and asphaltic cement. In manufacture, the materials are heated, thoroughly combined in mechanical mixers, and then passing into a machine very similar to that used in pressing bricks, the mixture is moulded into blocks measuring 4x4x12 inches.

The blocks weigh between 17 and 19 pounds each, and require 25 for a square yard of pavement. The price is \$67.20 per 1,000 f.o.b., Windsor, but the city pays for the blocks on the basis of \$1.68 a square yard, measured in the pavement, so that the price includes an allowance for waste.

The cost of this pavement per square yard, as laid in Windsor is estimated as follows :

Removal of cedar blocks, per sq. yd...	.10
Broken stone foundation74
Sand cushion.....	.05
Asphalt blocks.....	1.68
Laying blocks10
Hauling asphalt blocks045
Duty on blocks, 20 per cent ..	.336
Engineering and incidental expenses..	.05

Total per square yard..... \$ 3.10

The process of laying these blocks is very similar to that of laying vitrified brick. The pavement consists of a substantial foundation of concrete broken stone or gravel ; next a sand cushion, then the surface of asphalt blocks, which is covered with a temporary coating of clean fine sand to fill the joints.

In all, about 20,000 square yards of asphalt block have been laid in Windsor. This has been put on a broken stone foundation ; not on concrete. Petitions have been received and granted for laying this pavement on about 2-5 miles of street. Among the qualities claimed for this pavement are that it does not require skilled labor and an expensive plant to lay and repair as does sheet asphalt, being on a par with vitrified brick in this respect ; that it is not so noisy as vitrified brick ; that it forms a smooth and practically impervious pavement because, under the action of sun and traffic, the asphalt is compressed and the blocks are cemented together, making a healthy and pleasant pavement.

MACADAM.

Broken stone for macadam roadways and for the foundation of the asphalt block pavements is now largely obtained at Hagersville, the cost being \$1.25 a ton delivered on the street.

The general width of roadways on residential streets is being reduced to 24 feet, and on the streets macadamized to the present, there has been laid a depth of twelve inches of stone from curb to curb. All work has been done by day labor under the supervision of the street commissioner.

CURB

Concrete curbs with gutter have been laid on the streets paved with asphalt block, the cost being 45 cents per

lineal foot. The concrete core is composed of five parts of broken stone, two parts of sand, and one part of Portland cement ; and the surface finish, one inch in thickness, one part of Portland cement to two parts of sand

CONCRETE SIDEWALKS.

The city has about eight miles of cement concrete walks, or nearly 200,000 square feet. These are laid by contract, the price this year (1902) being 11 cents a square foot. The nearest gravel obtainable is not of a good quality, and is about four miles distant, so that very little is used for street work. The city sidewalk specifications require :

(1) The excavation to be to a depth of 10 inches below the finished grade of the walk.

(2) A 6 inch foundation of soft coal cinders.

(3) A 3 inch base of concrete, mixed in the proportions of one part of Portland cement, two parts of sand and five parts of crushed stone.

(4) A 1 inch surface finish mixed in the proportion of one of cement to two of sand.

The surface of the walk is given a fall towards the street of one quarter of an inch to each foot in width of the walk. The walk is divided into blocks not greater than 4 x 6 feet, and is finished with a fine ribbed roller.

The cost of sidewalks is paid out of the general funds. The contractor receives fortnightly payments to the amount of 80 per cent of the work finished. On the first of May following completion, he is entitled to half the money retained, and on the first of May of the second year following completion, he is paid the remainder, if the walks have been kept in perfect order, and have given satisfactory evidence of proper construction.

MACHINERY.

The principal machinery owned by the town consists of a steam roller and two graders. The roller is of twelve tons weight, and was purchased in 1898 at a cost of \$2,800 set up at Windsor. One of the graders has been in use since 1885, and is still giving good service, while the other has been in use for thirteen years.

County Roads in Wentworth and Simcoe.

At the recent good roads meeting the counties of Wentworth and Simcoe, where by-laws have been recently passed, adopting a comprehensive system of county roads, were well represented, and the experience of these men, as to the framing of their by-laws and the carrying out of their works under them, was a very great necessity. It was pointed out that Wentworth county, the first to adopt the new system, had taken over 138 miles of leading road, including about sixty miles of toll roads. The toll roads were purchased from the companies at a valuation of

\$63,000, fixed by the county judge. Other roads, extensions of the toll roads, leading from the various townships, were assumed, so as to form a system of connecting roads, serving the different parts of the whole county.

By-laws for the money required to purchase these roads, together with \$30,000, to commence the improvement of the other roads were submitted to the ratepayers, and carried by a majority of 950. The toll gates were immediately removed. The roads in Wentworth, for the first time, are now all free.

The county council appointed one man to act as general superintendent for the whole county, at an annual salary of \$800. This gentleman has had considerable experience in hauling and crushing stone for shipment and the building of streets and roads.

The committee of the county council, known as the Road and Bridge Committee, have practically charge of the executive work.

A complete outfit of road making machinery, including a grader, rock crusher and steam roller, have been purchased, and already, this summer, long stretches of first class roads have been made, possibly some of the best constructed roads in Ontario are now to be found as a result of this year's work in Wentworth.

The first step taken by the Road and Bridge Committee in the early season, was with their county road superintendent and Provincial Commissioner of Highways to make an inspection of all the roads, culverts and bridges comprised in the system and to carefully examine the material, gravel and stone of the county, available for road purposes. After this examination, the programme for the summer's work was laid down and operations immediately commenced.

Wentworth is the first county in the Province to have drawn its share of the Government grant to roads, when a few days ago they were paid over their proportion, about \$20,000.

Owing to Wentworth's conditions, the density of the counties' population and surrounding as it does the city of Hamilton, the heavy character of the traffic on the leading roads, which is very great, stone being easily available, crushed stone has been selected as a standard material for this county.

Conditions differ in different counties, and plans must be framed and material selected in keeping with such conditions.

The County Council of Simcoe, which is one of the largest counties in the Province, in order to serve their different sections, found it necessary to assume about 350 miles of road. These traversed the county so as to form a complete network, connecting the different railway stations and centres of business.

These roads are under the County Engineer, and the Commissioners for the