

Bitulithic vs. Asphalt Block

An open letter to the citizens of Richmond and the Broad Street Merchants (in particular), and the Council and Aldermanic Boards.

In March of this year the question of smooth pavement for Broad Street was under discussion by the Retail Merchants' Association, the city having previously appropriated the sum of \$50,000 for the paving of seven blocks on this street.

At a meeting of the City Council held on the evening of March 8 this question was referred to a subcommittee of five, and representatives of the Retail Merchants' Association appeared before the committee and urged the adoption of some form of smooth pavement to take the place of the granite pavement now on Broad Street. Mr. Corley, as spokesman of this committee, spoke in opposition to the use of granite block and, voicing the sentiment of the Retail Merchants' Association, stated that they would be satisfied with the selection of any form of standard smooth pavement which the Street Committee deemed advisable, after proper investigation. Subsequent discussion of the form of pavement to be used among the Retail Merchants' Association and members of the Council led to a further statement on the part of the Retail Merchants' Association that they would be satisfied with the Street Committee's recommendation, and articles appearing in the local papers for several days subsequent to this meeting indicated the willingness of the Retail Merchants' Association to be entirely satisfied with the adoption of any form of standard smooth pavement.

Pursuant to the action of the subcommittee, the City Engineer was instructed to advertise for bids on several forms of standard smooth pavement, Bitulithic included; and no adverse sentiment of Broad Street merchants or other interested parties to the use of Bitulithic having been advanced up to this time, it was only reasonable to presume that such forms of pavements as were advertised for would have a fair opportunity to present their claims to the consideration of the Council, and that the action of the Street Committee in reference to the selection of the pavement to be used would meet with the approval of the Broad Street merchants, consequently we submitted a proposal for the work, and have for the past four months been parties to the argument as to what is the best form of smooth pavement suited to the requirements of Broad Street traffic; and as we believe the sole question at issue is the selection of the best form of pavement, we present below a few facts in substantiation of our claims that Bitulithic is preferable to asphalt block, and we respectfully request that all interested parties will carefully read and digest this argument before reaching a final decision of the questions involved.

The local press doubtless means to be fair in their expressions of opinion, but nevertheless have published statements totally inconsistent with the facts and manifestly unfair to a home concern, having its headquarters in Richmond for the past five years, doing nearly a million dollars annually of business through local banks, and seeking an opportunity to demonstrate to the citizens of Richmond the true merit and worth of a high-grade standard form of smooth pavement in use in over 250 cities and towns in the United States, and increasing yearly in popularity among engineers and citizens, and pronounced by a great majority of the people as being the most popular form of bituminous pavement in the country.

We give below a sample extract from newspaper publications which are entirely inconsistent with the facts, and such statements, uncontradicted, might be well calculated to influence the judgment and opinions of those whose duty it is to settle this question:

FROM THE NEWS LEADER, July 12, 1912:

"Durability Bitulithic paving three to five years."
 "Salvage for reuse small percentage of material."
 "Cost of repairs large percentage original cost."

Salvage for reuse—All original material. Cost of repairs—Very small percentage of original cost.

The above statements are grossly inaccurate and manifestly unfair, as many Bitulithic pavements laid in the year 1901 and subjected to heavy traffic conditions are to-day in first-class condition, having required no repairs of any kind.

Clippings from all the local papers commenting upon the merits or demerits of Bitulithic and published since the recommendation of the Street Committee that Broad Street be paved with Bitulithic are on file in this office, but the expense of republishing and space required prevents our calling specific attention to all such unfair statements. Though we are inclined to believe that verbal arguments even more inaccurate and unfair have been used to influence the judgment and opinion of members of the Council and Aldermanic bodies, as, for example, a member of the Council stated to a representative of the Bitulithic Company that some of the advocates of the use of asphalt block had offered to wager that the Bitulithic people had laid the street paving around the Old Market, and it was the same form of pavement we propose to lay on Broad Street. As a general denial to all such statements, we reiterate the fact that we have never laid a yard of Bitulithic in the City of Richmond, nor in the City of Washington, and that Bitulithic pavement is not similar to sheet asphalt, such as laid around the Old Market and on North Eighth Street, but entirely different in form of material and construction.

Another unfair attack upon our pavement is brought in the form of a pamphlet entitled "THE EXPERIMENT THAT FAILED." This is unsigned, therefore anonymous and worthy of no consideration; but as it has been extensively circulated and commented upon, we beg leave to state on the last page of this circular appears the picture of a tombstone, inscribed "Bitulithic, died in the year 1911." In this year of our "demise" we contracted for over six million square yards of Bitulithic, an increase over the previous year of more than forty per cent. Up to July 1, 1912 (the year after "we were buried") we have contracted for over four million square yards of Bitulithic pavement, showing an increased demand during the first six months of the present year of twenty per cent. over that of 1911, yet such stuff has been freely exhibited by opponents of Bitulithic and used in an attempt to discredit our claims. We have been further accused by a merchant, very prominent in his expressions of opposition to our pavement, of maintaining a strong "lobby," which has been perniciously active at the City Hall and among Broad Street merchants. The inaccuracy of this statement must be apparent to members of the Council and Aldermanic boards, also to all Broad Street merchants, while the FACTS are that our opponents, aided by the efforts of the Broad Street merchants, have outdistanced us as "lobbyists."

Attention has been called to "failures" of Bitulithic in the cities of Chicago, St. Louis and Newport News. We cheerfully and candidly concede that in the laying of over twenty-three million square yards of Bitulithic pavement, during a period of eleven years, we have made some failures, and we challenge the manufacturers or contractors engaged in the making and laying of any form of street pavement to deny that they have also made failures. Such percentage of failures in the case of Bitulithic pavement is less than one-tenth of 1 per cent. of total area laid and due to impractical form of base or some unavoidable accident during progress of construction. We have had NO failures on concrete base.

To any parties interested in the circulation of literature or photographs in substantiation of above claims that failures have been made in the use and construction of all forms of standard pavement we are prepared to submit an abundance of evidence, but, as previously stated, we have always considered this form of "knocking" a poor way to secure business.

Believing that the main question at issue is whether asphalt block or Bitulithic is the best form of pavement for Broad Street, we herewith submit some facts and letters in reference to both forms of pavement, which we trust will aid in the solution of the question.

An extract from the Municipal Journal and Engineer, under date of August 10, 1910:

ASPHALT BLOCK NOT SUITABLE FOR NEWARK.

Newark, N. J.—The Board of Works Commissioners and Chief Engineer M. R. Sherrerd, with Street Engineer Howell, have returned from an inspection of asphalt block paved streets in New York, Brooklyn and Staten Island. While the trip was made with an idea of learning the adaptability of the material for Market Street, it was the consensus of opinion of the inspecting party that it would not be suitable for that thoroughfare or any other where there is heavy traffic.

We ask consideration of the following letters selected from many of a similar character, and while referring to the publication of such opinions or testimonials, we hereby state our willingness to have all letters received by the City Engineer, or any Broad Street merchant or daily papers published in full, together with letter of inquiry, whether favorable to Bitulithic or otherwise, being entirely satisfied that we are in position to successfully support our claims that Bitulithic is not only the best form of pavement for Broad Street, but is offered at a considerable saving of expense, and if adopted will prove, as it has in other cities, the most satisfactory to the public in general, particularly the owners of horses and automobiles, as we point with considerable pride to the fact that the bitterest opponents to the adoption of Bitulithic in other cities are to-day its warmest advocates, after having given it a fair trial. The only adverse opinions on Bitulithic from out-of-town so far appearing in the press have been expressions from a jeweler in Newark, N. J., to which we have already effectively replied, and a statement from City Engineer McCoy, of Baltimore. They have over ten miles of Bitulithic in the city of Baltimore, and Mr. McCoy is on record as stating that it is a good pavement, and the members of the Paving Commission are unanimous in voicing the same opinion. We refer any one interested to Mr. Keith Compton, Chairman of the Paving Commission, of Baltimore, Md. According to the newspapers, Mr. McCoy expressed but one objection, and that was the matter of its cost over that of sheet asphalt.

Form of Inquiry

July 23, 1912.
 Mr. Edward W. Quinn, Supt. Streets, Cambridge, Mass.:
 Dear Sir—We are considering the selection of a smooth pavement for one of our principal streets, and have particularly in mind asphalt block or bitulithic. A committee from our city, on a recent inspection trip, was favorably impressed with bitulithic. Would you kindly give us your experience, if any, with either of these forms of pavement and your preference?
 Yours very truly,
 WM. E. SULLIVAN,
 Member City Council.
 W.E.S.

There has been no repairs needed on any of it since laid. It makes a beautiful appearance, and although smooth, is not slippery.
 I should be pleased to give you any further information you might desire, and remain,
 Very truly yours,
 EDWARD W. QUINN,
 Superintendent of Streets.
 GEO. S. PIERSON, C. E. & M.
 HYDRAULIC AND SANITARY ENGINEER,
 Member of the American Society of Civil Engineers,
 Kalamazoo, Mich., July 22, 1912.
 Mr. W. E. Sullivan,
 Richmond, Va.:
 Dear Sir—Your inquiry of 20th is at hand. I would much prefer bitulithic pavement to the other kind you mention. It has been in service here for ten years without surfacing, and is now in good condition and popular.
 Very truly yours,
 GEO. S. PIERSON,
 Office of
 THE CITY ENGINEER,
 NASHVILLE, TENN.

Our experience with this pavement has been very satisfactory. We have never used any asphalt block paving in this city.
 Yours truly,
 GEO. A. CARPENTER,
 City Engineer.
 BUREAU OF ENGINEERING CONSTRUCTION,
 Theodore S. Oxholm, Eng. in Charge,
 THE CITY OF NEW YORK,
 Office of the
 PRESIDENT OF THE BOROUGH OF RICHMOND,
 Geo. Cromwell,
 President of the Borough,
 Louis I. Tribus,
 Consulting Engineer and Acting
 Commissioner of Public Works,
 Borough Hall, New Brighton, New York City,
 July 22, 1912.
 W. E. Sullivan, Esq.,
 4 North Tenth Street, Richmond, Va.:
 Dear Sir—In reply to yours of the 19th instant requesting our experience in the use of asphalt block and bitulithic pavements, will state that there is no question in my mind that a good bitulithic pavement is far superior to a good asphalt block pavement. We are replacing all of our asphalt block pavements of six years of age and over with other pavements, as they seem to be affected by climatic conditions, irrespective of traffic. The bitulithic pavement, however, must be a good one.
 The "Topeka specifications," which we are now using to some extent, due to an injunction by the Warren Bros. against the straight bitulithic pavement, is not as good as their pavement.
 If it is possible for you to use the Warren Bros. specifications or some that are practically the same, I would advise your doing so.
 Yours very truly,
 THEODORE S. OXHOLM,
 Engineer in Charge,
 CITY OF NEW YORK,
 PRESIDENT OF THE BOROUGH OF THE BRONX,
 Third Avenue and E. 177th St.
 Office of the Chief Engineer of Sewers and Highways,
 Cyrus C. Miller, President,
 Richard H. Gillespie, Chief Engineer,
 July 23, 1912.
 Mr. W. E. Sullivan,
 Member City Council,
 4 North Tenth Street, Richmond, Va.:
 Dear Sir—I beg to acknowledge yours of the 19th instant, stating that you are considering the paving of one of your principal and most heavily traveled thoroughfares with asphalt blocks, and requesting information as to what my experience is with this type of pavement.
 I desire to say that the authorities of the Borough of the Bronx began to lay asphalt block pavement about nine years ago, and since that time have laid in the neighborhood of fifty-five miles of such pavement. We have let several con-

tracts this year for repaving some of the streets that were laid with asphalt blocks eight or nine years ago. A number of other streets, where the pavement was laid six to eight years ago and subjected to heavy traffic, should at this time be repaved. During the present season we have eliminated entirely the use of asphalt block pavement on heavy traffic thoroughfares.
 Respectfully,
 R. H. GILLESPIE,
 Chief Engineer of Sewers and Highways.
 W. J. Hardee, Thos. I. Willis, Leon Mauborget,
 City Engineer, Principal Asst. Engr., Chief Clerk.
 OFFICE OF CITY ENGINEER,
 New Orleans, La., July 23, 1912.
 Sullivan & Company,
 Richmond, Va.:
 Gentlemen—Replying to yours of the 23rd instant, I take pleasure in handing you herewith copy of letter I have this day addressed to the Richmond Evening Journal in reply to an inquiry of the said paper as to our experience in this city with bitulithic pavement, which I believe will furnish you the information you desire.
 We have no asphalt block pavement in this city, and as I have had no personal experience with the same, I am not in a position to express any intelligent opinion concerning its merit.
 Very respectfully,
 W. J. HARDEE,
 City Engineer.
 (Copy)
 W. J. Hardee, Thos. I. Willis, Leon Mauborget,
 City Engineer, Principal Asst. Engr., Chief Clerk.
 OFFICE OF CITY ENGINEER,
 New Orleans, La., July 23, 1912.

Replies

CITY ENGINEER'S OFFICE,
 CITY HALL,
 Providence, R. I., July 23, 1912.
 Mr. W. E. Sullivan,
 Member City Council, Richmond, Va.:
 Dear Sir—Your letter of the 20th instant in relation to forms of pavement is received. We have a little more than a mile of bitulithic pavement put down about three years ago. It is working finely. It is on two parallel streets that are used by automobiles largely, and is proving to be very good for such use. This was put down by the Warren Bros. I think it is the best of those you mention.
 Yours respectfully,
 OTIS F. CLAPP,
 City Engineer,
 CITY OF CAMBRIDGE, MASS.

Wm. W. Southgate,
 City Engineer,
 Charles W. Wain,
 Assist. Engineer,
 J. C. Evans,
 Chief Draughtsman,
 Nashville, Tenn., July 24, 1912.
 Mr. W. E. Sullivan,
 Richmond, Va.:
 Dear Sir—Replying to your inquiry of the 20th regarding "Bitulithic" paving: We have had ten years' experience with "Warren's Bitulithic" paving on streets sustaining heavy traffic. The pavement has given satisfactory service. Cost of maintenance and repairs has been quite reasonable. The pavement is durable, quiet, clean, sanitary and affords a good roadbed. It is popular here, and we are continuing its use. We have no asphalt.
 Yours truly,
 WM. W. SOUTHGATE,
 City Engineer,
 DEPARTMENT OF PUBLIC WORKS,
 OFFICE OF CITY ENGINEER,
 Masonic Building,
 Geo. A. Carpenter,
 Member Am. Soc. C. E.,
 City Engineer,
 Pawtucket, R. I., July 22, 1912.
 Mr. W. E. Sullivan,
 4 North Tenth Street, Richmond, Va.:
 Dear Sir—Replying to yours of the 20th inquiring about bitulithic pavement, I would say that we have about 57,000 square yards in this city, the first of which was laid in 1907.

OFFICE OF THE SUPERINTENDENT OF STREETS,
 July 23, 1912.
 Mr. W. E. Sullivan,
 4 North Tenth Street, Richmond, Va.:
 Dear Sir—I have yours of the 20th instant in relation to smooth pavement, and would advise that in this city we have laid over one hundred thousand yards of bitulithic pavement on many of our principal streets.
 This particular kind of pavement has been laid in some cases since 1901, and we have laid it every year since 1908. This present year we have contracted for several thousand more yards.
 We have had universal satisfaction with the pavement, and have made provision for its use for some years to come.

The Richmond Evening Journal,
 Richmond, Va.:
 Gentlemen—I beg to advise that the statement issued by the Southern Bitulithic Company as to the amount of their pavement laid in this city, which statement accompanied your letter of the 19th instant, is correct.
 There are twenty-four streets paved with bitulithic in this city, the first of which was completed on March 15, 1908; all were laid on a six-inch concrete foundation and a bitulithic wearing surface two inches in thickness. The cost of these pavements ranged from \$2.67 to \$2.95 per square yard.
 Strictly speaking, these pavements are all on residential streets, but as we have no regulation governing traffic, many of them are extensively used in a commercial way, so that our bitulithic pavement on Howard Avenue and also on St. Charles Avenue, while in the residential section, carry as great volume of traffic, both as to number of vehicles and tonnage, as usually operate on business streets. All the bitulithic pavement we have has proven entirely satisfactory in all respects and fully met our expectations.
 Very respectfully,
 W. J. HARDEE,
 City Engineer.