

PROSPECTUS SUPPLEMENT
(To Prospectus Dated June 25, 2015)



LIGHTBRIDGE CORPORATION

\$5,892,000
Common Stock

This prospectus supplement updates and amends certain information contained on the cover page of the prospectus supplement, dated July 12, 2017, to the prospectus dated June 25, 2015 (collectively referred to as the “2017 prospectus”), relating to the offer and sale of shares of our common stock through B. Riley FBR, Inc. (successor to FBR Capital Markets & Co. and MLV & Co. LLC) (the “Distribution Agent”) for an “at the market offering” program (the “ATM Program”). In accordance with the terms of the At-the-Market Issuance Sales Agreement (the “Sales Agreement”), dated July 12, 2017, we may offer and sell shares of our common stock from time to time through the Distribution Agents, as our agents. Sales of our common stock, if any, under this prospectus supplement may be made in sales deemed to be “at the market offerings” as defined in Rule 415 promulgated under the Securities Act of 1933, as amended. This prospectus supplement should be read in conjunction with the 2017 prospectus, and is qualified by reference to the 2017 prospectus, except to the extent that the information presented herein supersedes the information contained in the 2017 prospectus. This prospectus supplement is not complete without, and may only be delivered or utilized in connection with, the 2017 prospectus, including any amendments or supplements thereto.

Our common stock is listed on the Nasdaq Capital Market under the symbol “LTBR”. On January 23, 2018, the last reported sale price of our common stock on the Nasdaq Capital Market was \$2.35 per share.

The aggregate market value of our outstanding common stock held by non-affiliates, or public float, is approximately \$32.0 million, based on approximately 13.8 million shares of outstanding common stock on January 24, 2018, of which approximately 0.2 million shares are held by affiliates, and a price of \$2.35 per share, which was the closing price of our common stock on the Nasdaq Capital Market on January 23, 2018. We have sold approximately \$4.8 million of securities as calculated pursuant to General Instruction I.B.6 of Form S-3 during the preceding 12 calendar month period that ends on the last day of the month prior to the date of this prospectus supplement or since that date to and including the date hereof. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in public primary offerings on Form S-3 with a value exceeding more than one-third of our public float (as defined by General Instruction I.B.6) in any 12 calendar month period so long as our public float remains below \$75.0 million.

We are filing this prospectus supplement to amend the 2017 prospectus to (1) update the amount of shares we are eligible to sell under General Instruction I.B.6 and (2) update the amount of shares that we may offer and sell from time to time through the Distribution Agents, acting as agents, pursuant to the Sales Agreement. As a result of the limitations under General Instruction I.B.6 and the current public float of our common stock, and in accordance with the terms of the Sales Agreement, we may currently offer and sell shares of our common stock having an aggregate offering price of up to \$5,892,000 from time to time through the Distribution Agents. If our public float increases such that we may sell additional amounts under the Sales Agreement, the registration statement, the 2017 prospectus and this prospectus supplement, we will file another prospectus supplement prior to making additional sales.

Investing in our common stock involves risks. See “Risk Factors” contained in the documents we incorporate by reference in the prospectus supplement to read about factors you should consider before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

B. RILEY FBR

This prospectus supplement is dated January 24, 2018.