

April 4, 2016

Via EDGAR

United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, DC 20549 Tom Kluck Attn:

Branch Chief, Office of Real Estate and Commodities

Re: **Lightbridge Corporation**

Preliminary Proxy Statement on Schedule 14A Filed March 25, 2016 File No. 001-34487

Ladies and Gentlemen:

David R. Crandall Direct: +1 303 454 2449 david.crandall@hoganlovells.com

On behalf of Lightbridge Corporation ("Lightbridge" or the "Company"), set forth below is the response to the comment received from the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") by letter dated April 1, 2016, with respect to the above-referenced filing.

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Proposal 3 — Approval, pursuant to Nasdag Listing Rule 5635(d), of the issuance of additional shares of our common stock to Aspire Capital under the common stock purchase agreement between the Company and Aspire Capital dated September 4, 2015

We note that you are seeking approval of the issuance of up to \$10.0 million in shares of your common stock to Aspire Capital. We further note your disclosure stating "... the purchase agreement limits Aspire Capital to beneficially owning no more than 19.99% of our issued and outstanding common stock at any time (and we are not seeking stockholder approval to lift such beneficial ownership limitation)." Finally, we note that Nasdaq Listing Rule 5635(d) requires stockholder approval for certain issuances of 20% or more of a listed company's outstanding shares. Please revise your disclosure to disclose the maximum number of shares that may be issued pursuant to this authorization. Please further revise to clarify whether you are asking stockholders to approve the potential issuance of 20% or more of your outstanding shares prior to such issuance.

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RESPONSE:

The Company acknowledges the Staff's comment and intends to revise the disclosure to reflect that (i) the Company is seeking stockholder approval only for the *issuance* by the Company of 20% or more of the number of shares of common stock outstanding at the time of the Company's entry into the common stock purchase agreement with Aspire Capital Fund, LLC on September 4, 2015, and the Company is *not* seeking stockholder approval for Aspire Capital to exceed the separate 19.99% beneficial ownership limitation, which limits the number of shares Aspire Capital may beneficially own at any one time, and (ii) the stockholder approval will authorize the Company to issue up to 15,000,000 shares of common stock under the common stock purchase agreement, and the Company will seek additional stockholder approval before issuing more than such 15,000,000 shares.

The Company intends to add the following paragraph at the end of the section entitled "Stockholder Approval Requirement" under Proposal 3:

We are seeking stockholder approval for the issuance of up to 15,000,000 shares of our common stock under the purchase agreement, which is the number of shares the Board of Directors has reserved for issuance under the purchase agreement, and we would seek additional stockholder approval before issuing more than such 15,000,000 shares. We would also seek additional stockholder approval before agreeing to any increase in the value of the shares of common stock we may issue to Aspire Capital under the purchase agreement above \$10.0 million.

In addition, the Company intends to add the following disclosure under the heading entitled "Reasons for Transaction and Effect on Current Stockholders":

The purchase agreement provides that the Company shall not issue, and Aspire Capital shall not purchase, any shares of our common stock under the purchase agreement if such shares proposed to be issued and sold, when aggregated with all other shares of our common stock then owned beneficially (as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended) by Aspire Capital and its affiliates, would result in the beneficial ownership by Aspire Capital and its affiliates of more than 19.99% of our then issued and outstanding shares of common stock. Unlike the 19.99% exchange cap, which limits the aggregate number of shares we may *issue* to Aspire Capital under the purchase agreement, this beneficial ownership limitation limits the number of shares Aspire Capital may *beneficially own at any one time* to 19.99% of our outstanding common stock. Consequently, the number of shares Aspire Capital may beneficially own in compliance with the beneficial ownership limitation may increase over time as the number of outstanding shares of our common stock increases over time. Aspire Capital may sell some or all of the shares it purchases under the purchase agreement, permitting it to purchase additional shares in compliance with the beneficial ownership limitation reflects the requirements of Nasdaq Listing Rule 5635(b), which requires stockholder approval prior to the issuance of securities when the issuance or potential issuance will result in a change of control of the Company. Generally, Nasdaq considers a change of control to have occurred when, as a result of an issuance, an investor would own, or have the right to acquire, 20% or more of our outstanding shares of common stock and such ownership is the largest ownership position. We are not seeking stockholder approval to lift such 19.99% beneficial ownership limitation. However, even with the beneficial ownership limitation, Aspire Capital will align with the interests of other stockholders.

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Attached to this response letter at $\underline{Appendix A}$ is a copy of the disclosure under Proposal 3 as so revised, marked to show changes against the disclosure in the preliminary proxy statement.

Acknowledgement

We hereby inform you on behalf of the Company that the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

We appreciate your prompt attention to this matter. Please do not hesitate to contact the undersigned at (303) 454-2449 if you have any questions or would like any additional information

Sincerely,

/s/ David R. Crandall

David R. Crandall

cc: Seth Grae, President & CEO, Lightbridge Corporation Linda Zwobota, CFO & Treasurer, Lightbridge Corporation

Appendix A

Proposed Revised Disclosure

PROPOSAL 3 — APPROVAL, PURSUANT TO NASDAQ LISTING RULE 5635(d), OF THE ISSUANCE OF ADDITIONAL SHARES OF OUR COMMON STOCK TO ASPIRE CAPITAL

We are asking our stockholders to approve the issuance of up to \$10.0 million in shares of our common stock to Aspire Capital pursuant to the common stock purchase agreement (the "purchase agreement") between the Company and Aspire Capital dated September 4, 2015. The purchase agreement limits the number of shares we can sell to Aspire Capital thereunder to 3,614,766 shares (including 300,000 commitment shares), which equals 19.99% of the Company's outstanding shares as of the date of the purchase agreement (such limit, the "19.99% exchange cap"), unless we either (i) obtain stockholder approval to issue more than such 19.99% exchange cap or (ii) the average price paid for all shares of common stock issued under the purchase agreement is equal to or greater than \$0.95 per share, in either case in compliance with Nasdaq Listing Rule 5635(d).

The Company has been using the net proceeds generated from the purchase agreement to fund its working capital needs and anticipates continuing to do so, subject to stockholder approval of the Company issuing shares beyond the limits imposed by the 19.99% exchange cap. As of the date of this proxy statement this proposal. As of March 31, 2016, the Company has sold 2,500,000 shares of its common stock to Aspire Capital pursuant to the purchase agreement (including the 300,000 commitment shares), for net gross proceeds of approximately \$1.4 million, and shares remain available for sale under. Unless our stockholders approve this proposal, the 19.99% exchange cap. If the stockholders do not approve this proposal, the Company will be limited in will limit the number of additional shares it we can sell to Aspire Capital to 1,114,766 shares, and the Company anticipates it we would need to seek alternative sources of financing, which may include additional transactions with Aspire Capital. We are seeking stockholder approval for the issuance of up to 15,000,000 shares of our common stock under the purchase agreement. We would seek additional stockholder approval before issuing more than such 15,000,000 shares.

Background

On September 4, 2015, the Company entered into the purchase agreement with Aspire Capital. Upon the terms and subject to the conditions and limitations set forth in the purchase agreement, Aspire Capital is committed to purchase up to an aggregate of \$10.0 million of our shares of common stock over the 24-month term of the purchase agreement, which commenced in January 2016. In consideration for entering into the purchase agreement, concurrently with the execution of the purchase agreement, we issued to Aspire Capital 300,000 shares of our common stock as a commitment fee (referred to as the commitment shares). We also concurrently entered into a registration rights agreement with Aspire Capital, in which we agreed to file one or more registration statements as permissible and necessary to register under the Securities Act of 1933 the sale of the shares of our common stock that have been and may be issued to Aspire Capital under the purchase agreement. The Company filed a registration statement on Form S-1 (File No. 333-207507) registering the sale of up to 5,730,200 shares of our common stock by Aspire Capital, which registration statement was declared effective by the SEC on December 22, 2015.

As of March 31, 2016, there were 20,828,957 shares of our common stock outstanding (19,927,809 shares held by non-affiliates), including the 2,500,000 shares previously issued to Aspire Capital pursuant to the purchase agreement. If we were to issue to Aspire Capital all 5,730,200 shares of our common stock previously registered for sale, such shares would represent have represented approximately 23.8% of the total common stock outstanding or approximately 24.7% of the non-affiliate shares of common stock outstanding as of the date hereof March 31, 2016. Under the purchase agreement, we have the right but not the obligation to issue register for sale more than the 5,730,200 shares of common stock previously registered, subject to stockholder approval to issue shares beyond the 19.99% exchange cap. As of the date of this proxy statement, we do not have any plans or intent to issue to Aspire Capital any shares of common stock in addition to the 5,730,200 shares of common stock previously registered.

On January 8, 2016, the conditions to the commencement under the purchase agreement were satisfied. On any trading day on which the closing sale price of our common stock equals or exceeds \$0.10 per share, we have the right, in our sole discretion, to present Aspire Capital with a purchase notice (each a "purchase notice") directing Aspire Capital (as principal) to purchase up to 100,000 shares of our common stock per trading day, provided that the aggregate price of such purchase shall not exceed \$250,000 per trading day, up to \$10.0 million of our common stock in the aggregate. The purchase price of such shares is equal to the lesser of:

- the lowest sale price of our common stock on the purchase date; or
- the arithmetic average of the three lowest closing sale prices for our common stock during the twelve consecutive trading days ending on the trading day immediately preceding the purchase date.

In addition, on any date on which we submit a purchase notice for 100,000 shares to Aspire Capital and the closing sale price of our stock equals or exceeds \$0.10 per share of common stock, we also have the right, in our sole discretion, to present Aspire Capital with a volume-weighted average price (VWAP) purchase notice directing Aspire Capital to purchase an amount of stock equal to up to 30% of the aggregate shares of the Company's common stock traded on the Nasdaq Capital Market on the next trading day, subject to a maximum number of shares we may determine and a minimum trading price. The VWAP purchase price of such shares is the lower of:

- the closing sale price on the VWAP purchase date; or
- 95% of the volume-weighted average price for our common stock traded on the Nasdaq Capital Market:
 - on the VWAP purchase date, if the aggregate shares to be purchased on that date have not exceeded the maximum permitted to be sold pursuant to the purchase agreement; or
 - during that portion of the VWAP purchase date until such time as the sooner to occur of (i) the time at which the aggregate shares traded on the Nasdaq Capital Market exceed the maximum permitted to be sold pursuant to the purchase agreement, or (ii) the time at which the sale price of the Company's common stock falls below the specific minimum price threshold.

The purchase agreement provides that the Company and Aspire Capital shall not effect any sales under the purchase agreement on any purchase date where the closing sale price of our common stock is less than \$0.10 per share (the "floor price"). The floor price and the respective prices and share numbers in the preceding paragraphs shall be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction. There are no trading volume requirements or restrictions under the purchase agreement, and we will control the timing and amount of any sales of our common stock to Aspire Capital. Aspire Capital has no right to require any sales by us, but is obligated to make purchases from us as we direct in accordance with the purchase agreement. There are no limitations on use of proceeds, financial or business covenants, restrictions on future fundings, rights of first refusal, participation rights, penalties or liquidated damages in the purchase agreement. The purchase agreement may be terminated by us at any time, at our discretion, without any penalty or cost to us.

The purchase agreement and registration rights agreement are attached as Exhibit 10.1 and Exhibit 4.1, respectively, to the Company's Current Report on Form 8-K filed with the SEC on September 8, 2015.

Stockholder Approval Requirement

As noted above, the purchase agreement restricts the amount of shares that may be sold to Aspire Capital to the 19.99% exchange cap, or 3,614,766 shares, including the 300,000 commitment shares. We can remove this 19.99% exchange cap by obtaining stockholder approval in compliance with the applicable Listing Rules of the Nasdaq Stock Market. Our common stock is listed on the Nasdaq Capital Market and, as such, we are subject to the Nasdaq Listing Rules.

Pursuant to Nasdaq Listing Rule 5635(d), stockholder approval is required prior to the issuance of securities in connection with a transaction other than a public offering involving: (i) the sale, issuance or potential issuance by the Company of common stock (or securities convertible into or exercisable for common stock) at a price less than the greater of book or market value which together with sales by officers, directors or substantial stockholders of the Company equals 20% or more of common stock or 20% or more of the voting power outstanding before the issuance; or (ii) the sale, issuance or potential issuance by the Company of common stock (or securities convertible into or exercisable common stock) equal to 20% or more of the common stock or 20% or more of the voting power outstanding before the issuance for less than the greater of book or market value of the stock. Stockholder approval of this proposal will constitute stockholder approval for purposes of Nasdaq Listing Rule 5635(d).

We are seeking stockholder approval for the issuance of up to 15,000,000 shares of our common stock under the purchase agreement, which is the number of shares the Board of Directors has reserved for issuance under the purchase agreement, and we would seek additional stockholder approval before issuing more than such 15,000,000 shares. We would also seek additional stockholder approval before agreeing to any increase in the value of the shares of common stock we may issue to Aspire Capital under the purchase agreement above \$10.0 million.

Reasons for Transaction and Effect on Current Stockholders

The Board of Directors has determined that the purchase agreement with Aspire Capital is in the best interests of the Company and its stockholders because the right to sell shares to Aspire Capital provides the Company with a reliable source of capital and the ability to access that capital when and as needed.

The purchase agreement does not affect the rights of the holders of outstanding common stock, but the sale of shares to Aspire Capital pursuant to the terms of the purchase agreement will have a dilutive effect on the existing stockholders, including the voting power and economic rights of the existing stockholders. If we were to sell to Aspire Capital all # million remaining 15,000,000 shares we are seeking stockholder approval to issue under the purchase agreement at the floor price of \$0.10 per share, Aspire Capital would purchase have purchased approximately 45.0% of the outstanding shares of the Company, although.

The purchase agreement limits Aspire Capital to beneficially owning no provides that the Company shall not issue, and Aspire Capital shall not purchase, any shares of our common stock under the purchase agreement if such shares proposed to be issued and sold, when aggregated with all other shares of our common stock then owned beneficially (as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended) by Aspire Capital and its affiliates, would result in the beneficial ownership by Aspire Capital and its affiliates of more than 19.99% of our then issued and outstanding common stock at any time (and outstanding shares of common stock. Unlike the 19.99% exchange cap, which limits the aggregate number of shares we may issue to Aspire Capital under the purchase agreement, this beneficial ownership limitation limits the number of shares Aspire Capital may beneficially own in compliance with the beneficial ownership limitation may increase over time as the number of outstanding shares of our common stock increases over time. Aspire Capital may sell some or all of the shares it purchases under the purchase agreement, permitting it to purchase additional shares in compliance with the beneficial ownership limitation. The beneficial ownership limitation reflects the requirements of Nasdaq Listing Rule 5635(b), which requires stockholder approval prior to the issuance of securities when the issuance or potential issuance will result in a change of control of the Company, Generally, Nasdaq considers a change of control to have occurred when, as a result of an issuance, an investor would own, or have the right to acquire, 20% or more of our outstanding shares of common stock and such ownership limitation. However, even with the beneficial ownership limitation, Aspire Capital may be in a position to exert influence over the Company and there is no guarantee that the interests of Aspire Capital will align with the interests of other stockholders.

Our stockholders are not entitled to dissenters' rights with respect to this proposal, and we will not independently provide stockholders with any such right.

Required Vote

If a quorum is present, the number of affirmative votes cast in favor of the proposal must exceed the number of votes cast against the proposal for approval of this proposal.

The Board of Directors recommends a vote FOR the approval of the issuance of additional shares of common stock to Aspire Capital in accordance with the stockholder approval requirements of Nasdaq Listing Rule 5635(d).