

Summit Hotel Properties, Inc.
Form 424B3
February 27, 2013

[QuickLinks](#) -- Click here to rapidly navigate through this document

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-179828

Prospectus Supplement
(To Prospectus Supplement Dated February 26, 2013 and Prospectus Dated May 15, 2012)

Summit Hotel Properties, Inc.
\$75,000,000
Shares of Common Stock

This prospectus supplement amends and supplements the prospectus supplement dated February 26, 2013, or the first prospectus supplement, and the accompanying prospectus dated May 15, 2012. This prospectus supplement should be read together with the first prospectus supplement and the accompanying prospectus, which are to be delivered with this prospectus supplement. This prospectus supplement amends only the cover page and the sections of the first prospectus supplement listed herein.

We have entered into separate sales agreements, each dated February 27, 2013, with each of Robert W. Baird & Co. Incorporated, Deutsche Bank Securities Inc., JMP Securities LLC, MLV & Co. LLC and RBC Capital Markets, LLC relating to shares of our common stock, \$0.01 par value per share, or our common stock, offered by this prospectus supplement, the first prospectus supplement and the accompanying prospectus, pursuant to a continuous offering program. In accordance with the terms of each sales agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$75,000,000 from time to time through Robert W. Baird & Co. Incorporated, Deutsche Bank Securities Inc., JMP Securities LLC, MLV & Co. LLC and RBC Capital Markets, LLC, to whom we refer collectively herein as the sales agents, as our agents for these offers and sales. Our common stock is traded on the New York Stock Exchange, or the NYSE, under the symbol "INN." On February 26, 2013, the last reported sale price of our common stock was \$9.27 per share.

Sales of shares of our common stock, if any, under this prospectus supplement, the first prospectus supplement and the accompanying prospectus may be made in negotiated transactions or transactions that are deemed to be "at the market offerings," as defined in Rule 415 under the Securities Act of 1933, as amended, or the Securities Act, including sales made directly on the NYSE or sales made to or through a market maker other than on an exchange. The sales agents are not required, individually or collectively, to sell any specific number or dollar amount of shares of our common stock, but each sales agent will make all sales using commercially reasonable efforts consistent with its normal trading and sales practices on mutually agreed terms between the sales agent and us. Sales of our common stock to which this prospectus supplement, the first prospectus supplement and the accompanying prospectus relate will be sold through only one of the sales agents on any given day.

Each sales agent will receive from us compensation of up to 2.0% of the gross sales price of all shares sold through it under the applicable sales agreement. In connection with the sale of shares of our common stock on our behalf, each sales agent may be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation paid to the sales agents may be deemed to be underwriting commissions or discounts. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We may also sell some or all of the shares of our common stock to a sales agent as principal for its own account at a price agreed upon at the time of sale. If we sell shares of our common stock to a sales agent as principal, we will enter into a separate agreement setting forth the terms of such transaction and, to the extent required by applicable law, we will describe the agreement in a separate prospectus supplement or pricing supplement.

Investing in our common stock involves risk. Before buying any shares, you should read the discussion of "Risk Factors" beginning on page S-1 of the first prospectus supplement and beginning on page 7 of our Annual Report on Form 10-K for the year

ended December 31, 2012 and risks we disclose in future filings with the Securities and Exchange Commission, or the SEC, that are incorporated by reference into this prospectus supplement.

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

Baird

Deutsche Bank Securities

JMP Securities

MLV & Co.

RBC Capital Markets

The date of this prospectus supplement is February 27, 2013

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the first prospectus supplement and the accompanying prospectus. We have not, and the sales agents have not, authorized anyone to provide you with different information. We are not, and the sales agents are not, making an offer of these securities in any state where the offer is not permitted. You should not assume that the information contained in this prospectus supplement, the first prospectus supplement and the accompanying prospectus is accurate as of any date other than the date on the front of this prospectus supplement, the first prospectus supplement or the accompanying prospectus or the date of the document containing the incorporated information, as applicable. Our business, financial condition, results of operations and prospects may have changed since those respective dates.

PLAN OF DISTRIBUTION

The following information replaces the first paragraph set forth in "Plan of Distribution" in the first prospectus supplement.

We have entered into separate sales agreements, each dated as of February 27, 2013, with the sales agents. Pursuant to the sales agreements, we may at any time and from time to time offer and sell shares of our common stock having an aggregate offering price of up to \$75,000,000. Any such sales may be made in negotiated transactions or other transactions that are deemed to be "at the market offerings," as defined in Rule 415 under the Securities Act, including sales made directly on the NYSE or sales made to or through a market maker other than on an exchange.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following information replaces the discussion set forth in "Incorporation of Certain Documents by Reference" in the first prospectus supplement.

We incorporate information into this prospectus supplement by reference, which means that we disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus supplement, except to the extent superseded by information contained herein or by information contained in documents filed with or furnished to the SEC after the date of this prospectus supplement. This prospectus supplement, the first prospectus supplement and the accompanying prospectus incorporate by reference the documents set forth below that have been previously filed with the SEC:

our Annual Report on Form 10-K for the year ended December 31, 2012, filed with the SEC on February 26, 2013;

our Current Reports on Form 8-K, filed with the SEC on January 7, 2013, January 11, 2013 and January 28, 2013;

our Current Report on Form 8-K/A, filed with the SEC on February 27, 2013; and

the description of our common stock included in our Registration Statement on Form 8-A filed with the SEC on February 7, 2011.

We also incorporate by reference into this prospectus supplement, the first prospectus supplement and the accompanying prospectus additional documents that we may file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act from the date of this prospectus supplement until we have sold all of the securities to which this prospectus supplement, the first prospectus supplement and the accompanying prospectus relate or the offering is otherwise terminated; provided, however, that we are not incorporating any information furnished under either Item 2.02 or Item 7.01 of any Current Report on Form 8-K. These documents may include Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

You may obtain copies of any of these filings from us as described below, through the SEC or through the SEC's Internet website as described above. Documents incorporated by reference are available without charge, excluding all exhibits unless an exhibit has been specifically incorporated by reference into this prospectus, by requesting them in writing at: Summit Hotel Properties, Inc., 12600 Hill Country Boulevard, Suite R-100, Austin, Texas 78738, Attention: Investor Relations.

Our website is www.shpreit.com. The information on, or otherwise accessible through, our website does not constitute a part of this prospectus supplement, the first prospectus supplement or the accompanying prospectus.

QuickLinks

[Filed Pursuant to Rule 424\(b\)\(3\) Registration No. 333-179828](#)

[PLAN OF DISTRIBUTION](#)

[INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE](#)