Issuer Free Writing Prospectus dated April 27, 2017 Relating to Preliminary Prospectus dated April 26, 2017 Filed by NCS Multistage Holdings, Inc. Pursuant to Rule 433 under the Securities Act of 1933 Registration Statement No. 333-216580

NCS MULTISTAGE HOLDINGS, INC.

Free Writing Prospectus

This free writing prospectus relates to the initial public offering of common stock of NCS Multistage Holdings, Inc. ("NCS") and is being filed solely to advise you of the availability of a revised preliminary prospectus, dated April 26, 2017 (the "Preliminary Prospectus"), that reflects changes from the preliminary prospectus dated April 17, 2017, and to provide you with a hyperlink to Amendment No. 2 of the Registration Statement on Form S-1 (File No. 333-216580), which includes the Preliminary Prospectus ("Amendment No. 2"). References below to "we," "us" and "our" are used in the manner described in the Preliminary Prospectus dated April 26, 2017.

To review a filed copy of our current Registration Statement on Form S-1 (File No. 333-216580) and the Preliminary Prospectus, click on, or copy and post into your internet browser, the following link on the SEC website at www.sec.gov as follows:

https://www.sec.gov/Archives/edgar/data/1692427/000119312517139778/d296949ds1a.htm

Our Central Index Key, or CIK, on the SEC website is 0001692427.

This free writing prospectus presents below certain information included in Amendment No. 2 in the sections referenced below and supplements the preliminary prospectus dated April 17, 2017 and supersedes the information contained in the preliminary prospectus dated April 17, 2017 to the extent such information is inconsistent with the information in this free writing prospectus. You should carefully read the Preliminary Prospectus before deciding to invest in the common stock of NCS.

Use of Proceeds

The following paragraph is added to the disclosure:

After the repayment of indebtedness under our Senior Secured Credit Facilities, we currently intend to use the remaining net proceeds from this offering for general corporate purposes, which may include the payment of costs and expenses associated with the implementation of our business strategy, although we have no current specific plans for the use of the remaining net proceeds at this time. The principal reasons for this offering are to repay indebtedness under our Senior Secured Credit Facilities, increase our capitalization and financial flexibility, create a public market for our common stock and facilitate our access to the capital markets in the future.

Executive and Director Compensation

The last sentence in the paragraph under "Equity Incentive Plans—2017 Plan—Cash Performance Awards" is replaced with the following disclosure:

The maximum amount of cash performance awards intended to qualify as "performance based compensation" under Section 162(m) of the Internal Revenue Code that may be paid to a participant during any one calendar year under all cash performance awards is \$15.0 million.

Description of Capital Stock

The first sentence in the paragraph under "Anti-takeover Provisions—No Stockholder Action by Written Consent" is replaced with the following disclosure:

Our amended and restated certificate of incorporation will provide that after the time that the Advent Funds collectively own less than 50.01% of our then outstanding common stock, subject to the rights of any holders of preferred stock to act by written consent instead of a meeting, stockholder action may be taken only at an annual meeting or special meeting of stockholders and may not be taken by written consent instead of a meeting.

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THE ISSUER HAS FILED A REGISTRATION STATEMENT (INCLUDING A PROSPECTUS) WITH THE SEC FOR THE OFFERING TO WHICH THIS COMMUNICATION RELATES. BEFORE YOU INVEST, YOU SHOULD READ THE PROSPECTUS IN THAT REGISTRATION STATEMENT AND OTHER DOCUMENTS THE ISSUER HAS FILED WITH THE SEC FOR MORE COMPLETE INFORMATION ABOUT THE ISSUER AND THIS OFFERING. YOU MAY OBTAIN THESE DOCUMENTS FOR FREE BY VISITING EDGAR ON THE SEC WEBSITE AT WWW.SEC.GOV.