Growth Capital Acquisition Corp. 300 Park Avenue, 16th Floor New York, New York 10022 (212) 895-3500

VIA EDGAR

January 13, 2022

U.S. Securities & Exchange Commission Division of Corporation Finance Office of Manufacturing 100 F Street, NE Washington, D.C. 20549 Attn: Bradley Ecker

Re: Growth Capital Acquisition Corp.

Amendment No. 2 Registration Statement on Form S-4

Filed December 17, 2021 File No. 333-259391

Dear Mr. Ecker:

Growth Capital Acquisition Corp. (the "Company," "we," "our" or "us") hereby transmits the Company's response to the comment letter received from the staff (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission"), on January 10, 2022, regarding the Company's Registration Statement on Form S-4 initially filed with the Commission on September 8, 2021 (the "Registration Statement"), as amended by Amendment No. 1 to the Registration Statement filed with the Commission on October 21, 2021 and Amendment No. 2 to the Registration Statement filed with the Commission on December 17, 2021. The Company has filed Amendment No. 3 to the Registration Statement (the "Amended Registration Statement") with the Commission on the date hereof. Capitalized terms not otherwise defined in this letter shall have the meanings set forth in the Amended Registration Statement.

For the Staff's convenience, we have repeated below the Staff's comments in bold, and have followed each comment with the Company's response.

Amendment No. 2 to Registration Statement on Form S-4

General

1. We note that you revised some of your disclosures to reflect that you will need approval of holders of a majority of the outstanding shares of GCAC Class A common stock to be voted in favor of the Amended and Restated Charter Proposal in order to have the Business Combination approved. Please ensure that your disclosures regarding votes required for approval of your proposals in consistent throughout. For example, we note that on page 126 you state that the approval of the Amended and Restated Charter Proposal requires the affirmative vote of a majority of the issued and outstanding GCAC common stock. Please clearly describe the approval required for each proposal.

Response: The Company acknowledges the Staff's comment and has revised the disclosure on page 126 as well as pages 17, 43 and 127 in the Amended Registration Statement to clarify that the Company will need the approval of holders of a majority of the outstanding shares of GCAC Class A common stock to be voted in favor of the Amended and Restated Charter Proposal in order to have the Business Combination approved.

Revenue, page 230

2. We note your disclosure that the "prototype development agreement" accounted for \$1.2 million of \$3.2 million total revenue for the nine months ended September 30, 2021. Please disclose the material terms of this agreement and file the agreement as an exhibit to this registration statement. Refer to Item 601(b)(10) of Regulation S-K.

Response: The Company acknowledges the Staff's comment and has revised the Registration Statement to include the requested information. Please see pages 223, 231, and 280 and Exhibit 10.31 of the Amended Registration Statement.

Executive and Director Compensation of Cepton, page 274

3. Please update your compensation disclosure as of the fiscal year ended December 31, 2021.

Response: The Company acknowledges the Staff's comment and has revised the Registration Statement to include the requested information. Please see pages 275-277 of the Amended Registration Statement.

We thank the Staff for its review of the foregoing and the Registration Statement. If you have further comments, please feel free to contact to our counsel, Samuel Katz at skatz@egsllp.com or by telephone at (212) 370-1300.

Sincerely,

/s/ George Syllantavos

George Syllantavos Co-Chief Executive Officer

cc: Jeffrey Rubin, Esq.