UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No.)*

HANOVER BANCORP, INC.

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

410710206

(CUSIP Number)

Castle Creek Capital Partners VIII, LP 11682 El Camino Real, Suite 320 San Diego, CA 92130 858-756-8300

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

August 19, 2024

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of \$ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page. The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 (the "Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

1	NAME OF REPORT	ING PF	RSONS				
Castle Creek Capital Partners VIII, LP							
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) □ (See Instructions) (b) □						
3	SEC USE ONLY						
4	SOURCE OF FUNDS (See Instructions) WC						
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)						
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware						
NUM	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		SOLE VOTING POWER				
BENE			SHARED VOTING POWER 705,440 (1)				
			SOLE DISPOSITIVE POWER 0				
P			SHARED DISPOSITIVE POWER 705,440 (1)				
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 705,440 (1)						
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)						
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.9% (1)						
14	TYPE OF REPORTING PERSON (See Instructions) PN (Limited Partnership)						

(1) The information set forth in Item 5 of this statement on Schedule 13D is incorporated herein by reference.

1	NAME OF REPORTING PERSONS					
-	Castle Creek Capital V					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)					
	(See Instructions)					
3	SEC USE ONLY					
4	SOURCE OF FUNDS (See Instructions) WC/AF					
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)					
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware					
NUM	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		SOLE VOTING POWER 0			
BENE			SHARED VOTING POWER 705,440 (1)			
			SOLE DISPOSITIVE POWER 0			
Р			SHARED DISPOSITIVE POWER 705,440 (1)			
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 705,440 (1)					
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)					
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.9% (1)					
14	TYPE OF REPORTING PERSON (See Instructions) OO (Limited Liability Company), HC (Control Person)					

(1) The information set forth in Item 5 of this statement on Schedule 13D is incorporated herein by reference.

Item 1. Security and Issuer

The title and class of equity security to which this statement on Schedule 13D relates is the common stock, par value \$0.01 per share (the "*Common Stock*"), of Hanover Bancorp, Inc. (the "*Company*"). The address of the principal executive office of the Company is 80 East Jericho Turnpike, Mineola, New York 11501.

Item 2. Identity and Background

This statement on Schedule 13D is being jointly filed by the parties identified below. All of the filers of this Schedule 13D are collectively referred to as the "*Reporting Persons*." The Joint Filing Agreement among the Reporting Persons is attached hereto as Exhibit 99.1 and incorporated herein by reference.

- (a)-(c) The following are the Reporting Persons: (i) Castle Creek Capital Partners VIII, LP, a Delaware limited partnership ("*Fund VIII*") and a private equity fund focused on investing in community banks throughout the United States of America; and (ii) Castle Creek Capital VIII LLC, a Delaware limited liability company ("*CCC VIII*"), whose principal business is to serve as the sole general partner of, and manage, Fund VIII. The business address for each of the Reporting Persons is 11682 El Camino Real Suite 320, San Diego, CA 92130.
- (d) During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations and similar misdemeanors).
- (e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) N/A.

Item 3. Source and Amount of Funds or Other Consideration

The information in Items 4 and 6 is incorporated by reference.

On April 25, 2024, Fund VIII entered into an Exchange Agreement (the "*Exchange Agreement*") with the Company, pursuant to which the Company agreed to issue to Fund VIII, in exchange for 125,000 shares of Common Stock, an additional 125,000 shares of the Company's Series A Preferred Stock, par value \$0.01 per share (the "*Series A Preferred Stock*" and such issuance and exchange, the "*Exchange*").

Following the consummation of the transactions contemplated by the Exchange Agreement, Fund VIII acquired an aggregate of 79,817 shares of Common Stock (the "*Acquired Common Stock*" and together with the Series A Preferred Stock acquired pursuant to the Exchange Agreement, the "*Acquired Shares*") between April 29, 2024 and August 23, 2024, inclusive, in various open market, broker-assisted transactions (with weighted average price share ranging from \$16.18 per share to \$17.28 per share), with Fund VIII expending an aggregate of \$1,330,182.82 to acquire such shares of Common Stock.

The foregoing references to and descriptions of the Exchange Agreement, and the transactions contemplated thereby, do not purport to be complete and are subject to, and qualified in their entirety by reference to, the full text of the Exchange Agreement, which is attached hereto as Exhibit 99.2, and incorporated herein by reference.

Item 4. Purpose of Transaction

The information in Items 3 and 6 is incorporated by reference.

The Reporting Persons acquired the Acquired Shares in the ordinary course of business because of their belief that the Acquired Shares represent an attractive investment in accordance with their investment strategy. Subject to the limitations imposed by the applicable federal and state securities laws, the Reporting Persons may dispose of the Acquired Shares from time to time, subject to market conditions and other investment considerations, and may cause the Acquired Shares to be distributed in kind to investors. To the extent permitted by applicable bank regulatory limitations, the Reporting Persons may directly acquire additional shares of Common Stock or associated rights or securities exercisable for or convertible into Common Stock, depending upon an ongoing evaluation of its investment in the Common Stock and securities exercisable for or convertible into Common Stock, applicable legal restrictions, prevailing market conditions, liquidity requirements of such Reporting Person and/or investment considerations.

To the extent permitted under applicable laws, the Reporting Persons may engage in discussions with management, the Company's board of directors (the "*Board*"), other stockholders of the Company and other relevant parties concerning the business, operations, composition of the Board, management, strategy and future plans of the Company.

As further described in Item 6 below, pursuant to the Exchange Agreement, Fund VIII now has the right to appoint a representative of Fund VIII to the Board. As of the date hereof, Fund VIII has not yet exercised such right.

The foregoing references to and descriptions of the Exchange Agreement do not purport to be complete and are subject to, and are qualified in their entirety by reference to, the full text of the Exchange Agreement, which is attached hereto as Exhibit 99.2 and incorporated herein by reference.

Other than as described in this Item 4, each of the Reporting Persons has no present plans or proposals that relate to or would result in any of the events set forth in Items 4(a) through (j) of Schedule 13D. However, each of the Reporting Persons reserves the right to change its plans at any time, as it deems appropriate, in light of its ongoing evaluation of (i) its business and liquidity objectives; (ii) the Company's financial condition, business, operations, competitive position, prospects and/or share price; (iii) industry, economic and/or securities markets conditions; (iv) alternative investment opportunities; and (v) other relevant factors.

Item 5. Interest in Securities of the Issuer

The information contained on the cover pages to this Schedule 13D and the information set forth or incorporated in Items 2, 3, 4 and 6 is incorporated herein by reference.

(a) and (b)

Reporting Person	Amount Beneficially Owned (2)	Percent of Class (3)	Sole Power to Vote or Direct the Vote	Shared Power to Vote or Direct the Vote	Sole Power to Dispose or to Direct the Disposition	Shared Power to Dispose or Direct the Disposition	
Castle Creek Capital Partners							
VIII, LP	705,440	9.9%	0	705,440	0	705,440	
Castle Creek Capital VIII LLC (1)	705,440	9.9%	0	705,440	0	705,440	

(1) CCC VIII disclaims beneficial ownership of the Common Stock owned by Fund VIII, except to the extent of its pecuniary interest therein.

(2) Includes (i) 595,567 shares of Common Stock held by Fund VIII and (ii) 109,873 shares of Common Stock issuable upon conversion of 109,873 shares of Series A Preferred Stock held by Fund VIII. Excludes 165,127 shares of Common Stock issuable upon conversion of 165,127 shares of Series A Preferred Stock held by Fund VIII. Since Fund VIII does not presently, and will not within the next 60 days, have the right to acquire Common Stock in respect of such shares of Series A Preferred Stock, those underlying shares are not included in the amount reported herein.

(3) This calculation is based on 7,125,663 shares of Common Stock outstanding, as reported by the Company in its Quarterly Report on Form 10-Q, filed with the SEC on July 31, 2024.

(c)

Fund VIII has completed the following open market, broker-assisted transactions with respect to the Common Stock during the last 60 days: (i) 57 shares of Common Stock purchased on July 30, 2024 at a weighted average price of \$17.1361 per share; (ii) 4,384 shares of Common Stock purchased on August 9, 2024 at a weighted average price of \$17.02 per share; (iii) 967 shares of Common Stock purchased on August 13, 2024 at a weighted average price of \$17.1689 per share; (iv) 243 shares of Common Stock purchased on August 14, 2024 at a weighted average price of \$17.24 per share; (v) 4,890 shares of Common Stock purchased on August 15, 2024 at a weighted average price of \$17.25 per share; (vi) 6,459 shares of Common Stock purchased on August 19, 2024 at a weighted average price of \$17.2731 per share; (vii) 2,762 shares of Common Stock purchased on August 21, 2024 at a weighted average price of \$17.27 per share; (viii) 164 shares of Common Stock purchased on August 22, 2024 at a weighted average price of \$17.28 per share; and (ix) 200 shares of Common Stock purchased on August 23, 2024 at a weighted average price of \$17.28 per share.

(d)

Other than as described herein, no other persons have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of Common Stock reported in the Schedule 13D.

(e)

N/A

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

The information set forth in Items 3 and 4 is incorporated herein by reference.

On April 25, 2024, Fund VIII entered into the Exchange Agreement, pursuant to which the Company agreed (i) to file with the Secretary of State of the State of New York a Certificate of Amendment to the Company's Certificate of Incorporation increasing the number of authorized shares of Series A Preferred Stock to 450,000 (the "*Certificate of Amendment*"), and (ii) to issue Fund VIII an additional 125,000 shares of Series A Preferred Stock in exchange for 125,000 shares of Common Stock previously owned by Fund VIII.

The following is a description of certain terms of the Exchange Agreement:

The Exchange Agreement contains representations, warranties and covenants of the Company and by Fund VIII that are customary in similar transactions.

The Exchange Agreement also provides that, upon such time as Fund VIII acquires such number of additional shares of Common Stock such that its aggregate holdings of the Common Stock and Series A Preferred Stock exceeds 865,000 shares, Fund VIII shall be entitled to: (i) certain access, information, and other rights provided for therein; and (ii) for so long as Fund VIII, together with its affiliates, owns in the aggregate at least 4.9% of the outstanding shares of the Common Stock, Fund VIII will be entitled to designate either (a) one representative to be appointed to the board of directors of the Company and its subsidiary bank or (b) one representative to attend the meetings of the board of directors of the Company and its subsidiary bank or expansion.

In the event Fund VIII seeks to transfer the shares of Series A Preferred Stock it holds, the Company has a right of first offer under the terms of the Exchange Agreement.

The foregoing references to and descriptions of the Exchange Agreement and the Certificate of Amendment, and the transactions contemplated thereby, do not purport to be complete and are subject to, and are qualified in their entirety by reference to, the full text of the Exchange Agreement and the Certificate of Amendment, which are attached hereto as Exhibits 99.2 and 99.3, respectively, and incorporated herein by reference.

Item 7. Material to Be Filed as Exhibits

Exhibit	Description
Exhibit 99.1	Joint Filing Agreement, dated as of August 26, 2024, by and between Castle Creek Capital Partners VIII, LP and Castle Creek
EXHIBIT 99.1	Capital VIII LLC.
Exhibit 99.2	Exchange Agreement, dated as of April 25, 2024, by and between Castle Creek Capital Partners VIII, LP and Hanover
	Bancorp, Inc. (incorporated by reference to Exhibit 10.1 to Hanover Bancorp, Inc.'s Current Report on Form 8-K filed with the
	Securities and Exchange Commission on April 26, 2024).
Exhibit 99.3	Certificate of Amendment to the Certificate of Incorporation of Hanover Bancorp, Inc., (incorporated by reference to Exhibit 3.1
	Hanover Bancorp, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on April 26, 2024).

SIGNATURES

After reasonable inquiry and to the best of the knowledge and belief of the undersigned, the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: August 26, 2024

CASTLE CREEK CAPITAL PARTNERS VIII, LP By: Castle Creek Capital VIII LLC, its general partner

By: /s/ Sundeep Rana Name: Sundeep Rana Title: Managing Principal

CASTLE CREEK CAPITAL VIII LLC

By: /s/ Sundeep Rana

Name: Sundeep Rana Title: Managing Principal

JOINT FILING AGREEMENT

The undersigned hereby agree that this Schedule 13D, dated August 26, 2024, with respect to the common stock, par value \$0.01 per share, of Hanover Bancorp, Inc., a New York corporation, is, and any amendments hereto signed by each of the undersigned shall be, filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended.

Dated: August 26, 2024

CASTLE CREEK CAPITAL PARTNERS VIII, LP

By: Castle Creek Capital VIII LLC, its general partner

By: /s/ Sundeep Rana Name: Sundeep Rana Title: Managing Principal

CASTLE CREEK CAPITAL VIII LLC

By: /s/ Sundeep Rana Name: Sundeep Rana Title: Managing Principal