

Wheeler Real Estate Investment Trust, Inc.

This is Prospectus Supplement No. 5 (this "<u>Prospectus Supplement</u>") to our Prospectus, dated July 22, 2021 (the "<u>Prospectus</u>"), relating to the issuance from time to time by Wheeler Real Estate Investment Trust, Inc. of our Series B Convertible Preferred Stock and our Series D Cumulative Convertible Preferred Stock as interest payment on our 7.00% Subordinated Convertible Notes due 2031. Terms used but not defined in this Prospectus Supplement have the meanings ascribed to them in the Prospectus.

We have attached to this Prospectus Supplement our Current Report on Form 8-K filed on May 22, 2025. The attached information updates and supplements, and should be read together with, the Prospectus, as supplemented from time to time.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page 5 of the Prospectus, and under similar headings in any amendments or supplements to the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the Prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement is May 22, 2025.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (date of earliest event reported): May 20, 2025

WHEELER REAL ESTATE INVESTMENT TRUST, INC.

(Exact name of registrant as specified in its charter)

Maryland	001-35713	45-2681082
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(IRS Employer Identification No.)
2529 Virginia Beach Blvd. Virginia Beach, VA		23452
(Address of principal executive offices)		(Zip code)
Registrant's tele. Check the appropriate box below if the Form 8-K filing the following provisions:	phone number, including area code: (75 is intended to simultaneously satisfy the	
 □ Written communications pursuant to Rule 425 □ Soliciting material pursuant to Rule 14a-12 un □ Pre-commencement communications pursuant □ Pre-commencement communications pursuant 	der the Exchange Act (17 CFR 240.14a to Rule 14d-2(b) under the Exchange A	n-12) Act (17 CFR 240.14d-2(b))
Indicate by check mark whether the registrant is an eme	rging growth company as defined in Ru	ale 405 of the Securities Act of 1933 (§230.405 of

this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company □

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.01 par value per share	WHLR	Nasdaq Capital Market
Series B Convertible Preferred Stock	WHLRP	Nasdaq Capital Market
Series D Cumulative Convertible Preferred Stock	WHLRD	Nasdaq Capital Market
7.00% Subordinated Convertible Notes due 2031	WHLRL	Nasdaq Capital Market

Item 8.01 Other Events

On May 20, 2025, the Company determined that interest on its 7.00% Subordinated Convertible Notes due 2031 (the "Notes") payable on June 30, 2025 to holders of record of the Notes at the close of business at 5:00 p.m., New York City time, on June 1, 2025, shall be in the form of the Company's Series D Cumulative Convertible Preferred Stock.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

WHEELER REAL ESTATE INVESTMENT TRUST, INC.

By: /s/ Crystal Plum

Name: Crystal Plum Title: Chief Financial Officer

Dated: May 22, 2025