

STARWOOD REAL ESTATE INCOME TRUST, INC.
SUPPLEMENT NO. 8 DATED SEPTEMBER 16, 2026
TO THE PROSPECTUS DATED APRIL 7, 2026

This prospectus supplement (“Supplement”) is part of and should be read in conjunction with the prospectus of Starwood Real Estate Income Trust, Inc., dated April 7, 2026 (as supplemented to date, the “Prospectus”). Unless otherwise defined herein, capitalized terms used in this Supplement shall have the same meanings as in the Prospectus. References herein to the “Company,” “we,” “us,” or “our” refer to Starwood Real Estate Income Trust, Inc. and its subsidiaries unless the context specifically requires otherwise.

The purposes of this Supplement are as follows:

- to disclose the transaction price for each class of our common stock as of October 1, 2026;
- to disclose the calculation of our August 31, 2026 NAV per share for each class of our common stock;
- to provide an update on our share repurchase requests; and
- to provide an update on the status of our current public offering (the “Offering”).

October 1, 2026 Transaction Price

The transaction price for each share class of our common stock for subscriptions accepted as of October 1, 2026 (and repurchases as of September 30, 2026) is as follows:

	Transaction Price (per share)	
Class S	\$	19.45
Class T	\$	19.45
Class D	\$	19.03
Class I	\$	19.27

The October 1, 2026 transaction price for each of our share classes is equal to such class’s NAV per share as of August 31, 2026. A detailed presentation of the NAV per share is set forth below. The purchase price of our common stock for each share class equals the transaction price of such class, plus applicable upfront selling commissions and dealer manager fees.

August 31, 2026 NAV Per Share

NAV per share is calculated in accordance with the valuation guidelines that have been approved by our board of directors. Our NAV per share, which is updated as of the last calendar day of each month, is posted on our website at www.starwoodNAV.reit. Please refer to “Net Asset Value Calculation and Valuation Guidelines” in the Prospectus for information on how our NAV is determined. The Advisor is ultimately responsible for determining our NAV. We have included a breakdown of the components of total NAV and NAV per share as of August 31, 2026 along with the immediately preceding month.

Our total NAV presented in the following tables includes the NAV of our Class S, Class T, Class D, and Class I common shares, as well as partnership interests of the Operating Partnership held by parties other than the Company. The following table provides a breakdown of the major components of our NAV as of August 31, 2026 (\$ and shares/units in thousands):

Components of NAV	August 31, 2026	
Investments in real estate	\$	20,982,654
Investment in real estate debt		984,360
Cash and cash equivalents		200,196
Restricted cash		243,776
Other assets		212,623
Debt obligations		(11,804,313)
Secured financings on investment in real estate debt		(590,616)
Subscriptions received in advance		—
Other liabilities		(1,158,863)
Performance participation accrual		—
Management fee payable		(6,625)
Accrued stockholder servicing fees ⁽¹⁾		(2,601)
Non-controlling interests in consolidated entities		(1,149,213)
Net asset value	\$	7,911,378
Number of outstanding shares/units		409,229

⁽¹⁾ Stockholder servicing fees only apply to Class S, Class T and Class D shares. For purposes of NAV we recognize the stockholder servicing fee as a reduction of NAV on a monthly basis. Under accounting principles generally accepted in the United States of America (“GAAP”), we accrue the full cost of the stockholder servicing fee as an offering cost at the time we sell Class S, Class T and Class D shares. As of August 31, 2026, we have accrued under GAAP \$203.3 million of stockholder servicing fees payable to the Dealer Manager related to the Class S, Class T and Class D shares sold.

The following table provides a breakdown of our total NAV and NAV per share, by share class, as of August 31, 2026 (\$ and shares/units in thousands, except per share/unit data):

NAV Per Share	Class S Shares	Class T Shares	Class D Shares	Class I Shares	Third-party Operating Partnership Units ⁽¹⁾	Total
Net asset value	\$ 3,355,638	\$ 86,439	\$ 463,602	\$ 3,620,457	\$ 385,242	\$ 7,911,378
Number of outstanding shares/units	172,566	4,444	24,363	187,866	19,990	409,229
NAV Per Share/Unit as of August 31, 2026	\$ 19.45	\$ 19.45	\$ 19.03	\$ 19.27	\$ 19.27	

⁽¹⁾ Includes the Operating Partnership units held by the Special Limited Partner and other third parties.

Set forth below are the weighted averages of the key assumptions in the discounted cash flow methodology used in the August 31, 2026 valuations, based on property types. Once we own more than one single-family, one self-storage and one extended stay investment, we will include the key assumptions for the property types.

Property Type	Discount Rate	Exit Capitalization Rate
Multifamily	6.9%	5.5%
Industrial	7.4%	5.8%
Office	8.0%	6.8%
Other	8.3%	6.7%

These assumptions are determined by the Advisor and reviewed by our independent valuation advisor. A change in these assumptions would impact the calculation of the value of our property investments. For example, remain unchanged, the changes listed below would result in the following effects on our investment values:

Input	Hypothetical Change	Multifamily Investment Values	Industrial Investment Values	Office Investment Values	Other Investment Values
Discount Rate	0.25% decrease	+1.9%	+1.9%	+1.9%	+1.9%
(weighted average)	0.25% increase	(1.9)%	(1.9)%	(1.9)%	(1.8)%
Exit Capitalization Rate	0.25% decrease	+3.0%	+2.8%	+2.4%	+2.3%
(weighted average)	0.25% increase	(2.7)%	(2.6)%	(2.3)%	(2.1)%

The following table provides a breakdown of the major components of our NAV as of July 31, 2026 (\$ and shares/units in thousands):

Components of NAV	July 31, 2026
Investments in real estate	\$ 20,970,956
Investment in real estate debt	964,718
Cash and cash equivalents	177,815
Restricted cash	238,701
Other assets	156,160
Debt obligations	(11,791,970)
Secured financings on investment in real estate debt	(578,831)
Subscriptions received in advance	—
Other liabilities	(2,048,577)
Performance participation accrual	—
Management fee payable	(6,662)
Accrued stockholder servicing fees ⁽¹⁾	(2,616)
Non-controlling interests in consolidated entities	(123,251)
Net asset value	\$ 7,956,443
Number of outstanding shares/units	408,649

⁽¹⁾ Stockholder servicing fees only apply to Class S, Class T and Class D shares. For purposes of NAV we recognize the stockholder servicing fee as a reduction of NAV on a monthly basis. Under accounting principles generally accepted in the United States of America (“GAAP”), we accrue the full cost of the stockholder servicing fee as an offering cost at the time we sell Class S, Class T and Class D shares. As of July 31, 2026, we have accrued under GAAP \$205.5 million of stockholder servicing fees payable to the Dealer Manager related to the Class S, Class T and Class D shares sold.

The following table provides a breakdown of our total NAV and NAV per share, by share class, as of July 31, 2026 (\$ and shares/units in thousands, except per share/unit data):

NAV Per Share	Class S Shares	Class T Shares	Class D Shares	Class I Shares	Third-party Operating Partnership Units ⁽¹⁾	Total
Net asset value	\$ 3,382,072	\$ 87,008	\$ 466,655	\$ 3,632,723	\$ 387,985	\$ 7,956,443
Number of outstanding shares/units	172,700	4,442	24,348	187,169	19,990	408,649
NAV Per Share/Unit as of July 31, 2026	\$ 19.58	\$ 19.59	\$ 19.17	\$ 19.41	\$ 19.41	

⁽¹⁾ Includes the Operating Partnership units held by the Special Limited Partner and other third parties.

Share Repurchase Request Update

Effective April 29, 2026, our board of directors amended our share repurchase plan, beginning with repurchases submitted during the month of April 2026 such that (i) repurchase requests made upon the death or qualifying disability of a stockholder who is a natural person will be repurchased in full to the extent there are available funds up to a limit of \$5 million per month; and (ii) repurchase requests for accounts having a balance below \$5,000 will be repurchased in full to the extent there are available funds up to a limit of \$5 million per month.

In July 2026, we accepted approximately \$4.2 million of common stock under our share repurchase plan, which represented all repurchase requests for such period made upon the death or qualifying disability of a stockholder and for accounts having a balance below \$5,000.

In August 2026, we accepted approximately \$5.1 million of common stock under our share repurchase plan, which represented all repurchase requests for such period made upon the death or qualifying disability of a stockholder and for accounts having a balance below \$5,000.

Status of our Current Public Offering

This Offering was declared effective by the SEC on February 4, 2026 and we are currently offering on a continuous basis up to \$10.0 billion in shares of common stock, consisting of up to \$9.5 billion in shares in our primary offering and up to \$0.5 billion in shares pursuant to our distribution reinvestment plan. As of the date hereof, we had issued and sold (i) 351,111 shares of our common stock (consisting of 28,429 Class S shares and 322,682 Class I shares) in the primary offering for total proceeds of approximately \$5.8 million and (ii) 2,953,000 shares of our common stock (consisting of 1,380,448 Class S shares, 59,210 Class T shares, 115,483 Class D shares and 1,397,859 Class I shares) pursuant to our distribution reinvestment plan for a total value of approximately \$58.2 million. As of August 31, 2026, our aggregate NAV was approximately \$7.9 billion. We intend to continue selling shares in the Offering on a monthly basis.