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FS CREDIT REAL ESTATE INCOME TRUST, INC.

Supplement dated November 20, 2026
to
Prospectus dated June 2, 2026

This supplement ("Supplement") contains information which amends, supplements or modifies certain information contained in the Prospectus of FS Credit Real Estate Income Trust, Inc. ("FS Credit REIT") dated June 2, 2026 (as so supplemented and amended, the "Prospectus"). Capitalized and/or defined terms used in this Supplement have the same meanings as in the Prospectus, unless otherwise stated herein.

You should carefully consider the "Risk Factors" beginning on page 31 of the Prospectus before you decide to invest in shares of our common stock.

The purpose of this Supplement is to disclose updates to our Prospectus.

Updates to Our Prospectus

Advisory Agreement

The following supplements and supersedes the description of the Advisory Agreement and related fees in the following sections of the Prospectus: "Prospectus Summary—Fees and Expenses," "Management—The Advisory Agreement—Fees and Expenses," "Compensation," "Conflicts of Interest—Receipt of Fees and Other Compensation by Our Adviser, the Sub-Adviser and Their Affiliated Third Parties" and all other related fee disclosure.

On November 16, 2026, we entered into the Sixth Amended and Restated Advisory Agreement (the "Amended Advisory Agreement"), which amended and restated the prior version of the Advisory Agreement. The Amended Advisory Agreement made the revisions below.

Administrative Services Fee. The Amended Advisory Agreement reduces the administrative services fee payable to the Adviser from 1.0% to 0.75% per annum of our NAV attributable to all shares.

Origination Fees. Under the prior Advisory Agreement, the adviser or the sub-adviser could retain origination fees of up to 1.0% of the loan amount for first lien mortgage loans, subordinated debt or mezzanine debt, and up to 1.0% of a preferred equity financing. Any such fees paid to us were remitted to the adviser or the sub-adviser. Under the Amended Advisory Agreement, origination fees of up to those amounts may continue to be charged in connection with our investments and will be retained only to the extent paid by the applicable borrower. For any origination fees paid, an amount equal to one-half of the origination fees paid will be contributed to and retained by us (the "Company Portion"). The balance of such origination fees, not to exceed 0.5% of the loan amount or of the preferred equity financing, as applicable, may be retained by the adviser or the sub-adviser. Following the conclusion of each fiscal quarter, we may pay the adviser or the sub-adviser, as applicable, an amount, not to exceed the unpaid Company Portion, equal to the amount, if any, by which our adjusted core earnings for such quarter exceeded our total distributions for such quarter; provided, however, that no such amount shall be paid if there are any outstanding Class I PCRs as of the end of such quarter. The remaining Company Portion will be reduced by any such payment. However, the Company Portion of any origination fees will be paid to the adviser or the sub-adviser only to the extent we received such Company Portion within the 36-month period prior to the end of the fiscal quarter for which the calculation is made; any Company Portion received prior to such period will not be paid to the adviser or the sub-adviser, and the remaining Company Portion will be reduced by the same amount.

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Class I RSU Agreement

The following supplements the description of the Class I RSU agreement in the section of the Prospectus titled "Management—The Advisory Agreement—Fees and Expenses—Class I RSU Agreement."

On November 16, 2026, our board of directors approved amending the Class I Restricted Stock Unit Agreement between us and the adviser to defer the vesting of any restricted stock units scheduled to vest on January 1, 2027, for fifteen months.

The following disclosure is added to the "Investment Portfolio—Portfolio Update" section of the Prospectus.

Portfolio Composition

In the aggregate, our real estate owned ("REO") properties generated positive cash flow for the ten months ended October 31, 2026, although at levels below the income previously generated by the related loans when they were performing.

New Origination Pipeline

As of November 11, 2026, we had a new origination pipeline of approximately $820 million, consisting of loans in underwriting for which we have agreed to terms with the borrower and which we currently expect to fund by December 31, 2026. Agreed terms are not binding commitments to lend. Each prospective loan remains subject to, among other things, the completion of due diligence, final investment committee approval, the negotiation and execution of definitive documentation and the satisfaction of closing conditions. There can be no assurance that any loan in the pipeline will close on the anticipated timeline, on the terms currently contemplated or at all.