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) June 3, 2004

Wells Real Estate Investment Trust, Inc.

(Exact name of registrant as specified in its charter)

Maryland

(State or other jurisdiction of incorporation)

0-25739 (Commission File Number) 58-2328421 (IRS Employer Identification No.)

6200 The Corners Parkway, Norcross, Georgia 30092-3365 (Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code (770) 449-7800

(Former name or former address, if changed since last report)

Item 9. Regulation FD Disclosure

PRESS RELEASE

FOR IMMEDIATE RELEASE

Media Contact: Ben Johnson (770) 243-8382

Wells REIT Sells Suburban Tampa Property

Atlanta (June 3, 2004)—Wells Real Estate Investment Trust, Inc. (Wells REIT) has sold a four-story Class-A office building and 5.2 acres of adjacent land in Tampa, Florida, for \$31.2 million (\$240 per square foot). The Wells REIT acquired the property in December 1998 for \$21.2 million. The buyer is IPC (US), Inc., a subsidiary of IPC US REIT in Toronto. Wells was assisted in the transaction by the Tampa office of Carter, a full-service commercial real estate firm.

"This represents a major sale from the Wells REIT portfolio, and we are pleased to have gone full-cycle on this property for the benefit of our investors," said Parker Hudson, Managing Director of Dispositions at Wells Real Estate Funds. "We expect to redeploy the proceeds in another property acquisition in the near future, as we continue diversifying the Wells REIT portfolio by geographic location, by tenant type, by tenant industry, and by lease term."

Located at 5104 Eisenhower Boulevard west of Tampa near the Tampa International Airport, the building contains 130,000 square feet of space and is 100% leased to IBM and to the International Academy of Merchandising and Design (IAMD), a division of Career Education Corporation. IAMD is expected to fully occupy the building in January 2005.

The Wells REIT portfolio now includes 112 Class-A office and industrial properties located across the country in 26 states (plus the District of Columbia) and 43 markets. The average credit rating for those tenants, which are rated by Moody's Investors Service or Standard & Poor's, is "A," and the portfolio is 97% leased. The Wells REIT was closed to new investors in December 2003, after the launch of Wells REIT II in November 2003.

Wells Real Estate Funds is a national real estate investment management firm that purchases existing Class-A office and industrial properties, as well as corporate sale-leasebacks and build-to-suit projects, leased long term to creditworthy tenants and professional services firms. Wells was the largest purchaser of commercial real estate in the United States in both 2002 and 2003, according to New York-based Real Capital Analytics. In its investment products, Wells manages more than \$5.5 billion in assets for more than 160,000 investors nationwide.

For more information, please contact Parker Hudson, Managing Director of Dispositions, at 800-448-1010. Wells is online at www.wellsref.com.

This press release may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and 21E of the Securities Exchange Act of 1934, including discussions regarding Wells' use of proceeds and certain other factors that may affect future earnings or financial results. Such statements involve risks and uncertainties, which could cause actual results to vary materially from those expressed in or indicated by the forward-looking statements. Factors that may cause actual results to differ materially include changes in general economic conditions, changes in real estate conditions, construction delays, increases in interest rates, lease-up risks, lack of availability of financing, and lack of availability of capital proceeds. This is neither an offer nor a solicitation to purchase securities.

2

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Current Report on Form 8-K to be signed on its behalf by the undersigned hereunto duly authorized.

WELLS REAL ESTATE INVESTMENT TRUST, INC. (Registrant)

By: /s/ Douglas P. Williams

Douglas P. Williams Executive Vice President

Date: June 3, 2004