American Realty Capital Trust, Inc. Form 424B3 July 13, 2011

## FILED PURSUANT TO RULE 424(b)(3) REGISTRATION NO. 333-145949

## AMERICAN REALTY CAPITAL TRUST, INC. SUPPLEMENT NO. 8 DATED JULY 13, 2011 TO THE PROSPECTUS DATED DECEMBER 13, 2010

This prospectus supplement (this Supplement No. 8) is part of the prospectus of American Realty Capital Trust, Inc.
(we, the REIT, ARCT or Company), dated December 13, 2010 (the Prospectus) and should be read in conjunct with the Prospectus, Supplement No. 5, dated May 2, 2011 (Supplement No. 5), Supplement No. 6, dated May 27, 2011 (Supplement No. 6) and Supplement No. 7, dated June 2, 2011 (Supplement No. 7). This Supplement No. 8 supplements, modifies or supersedes certain information contained in the Prospectus, Supplement No. 5, Supplement No. 6 and Supplement No. 7. This Supplement No. 8 will be delivered with the Prospectus, Supplement No. 5, Supplement No. 5, Supplement No. 6 and Supplement No. 7. The purpose of this Supplement No. 8 is to update the status of the offering.

## Status of the Offering

We commenced our initial public offering of 150.0 million shares of common stock on January 25, 2008. As of July 5, 2011, we had issued the entire 150.0 million shares of common stock available in connection with our primary offering and 2.8 million shares of common stock under the DRIP. We re-allocated the remaining 22.2 million shares available under the DRIP to our primary offering. As of July 11, 2011, we had issued 165.8 million shares, including shares issued under the DRIP. Total gross proceeds from these issuances were \$1.6 billion. As of July 11, 2011, the aggregate value of all share issuances and subscriptions outstanding was \$1.7 billion based on a per share value of \$10.00 (or \$9.50 per share for shares issued under the DRIP).

## Shares Currently Available for Sale

As of July 11, 2011, there were 9.2 million shares of common stock available for sale in connection with our primary offering.

On August 5, 2010, we filed a registration statement on Form S-11 with the U.S. Securities Exchange Commission, to register \$325 million of common stock for the follow on offering to our initial public offering. On July 11, 2011, we withdrew the registration statement for our follow on offering pursuant to Rule 477 of the Securities Act of 1933, as amended. Our initial public offering will continue until the earlier of July 25, 2011 or the date that we have accepted subscriptions, dated no later than July 11, 2011, for the remaining \$9.2 million of shares of common stock at \$10.00 per share remaining for sale.

We plan to file a registration statement on Form S-3 to register an additional 24 million shares of common stock for issuance under our DRIP. Cash distributions paid on shares of common stock held by stockholders who are existing participants in the DRIP will be automatically reinvested in additional shares of our common stock registered under the Form S-3.