

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 10-D**

**ASSET-BACKED ISSUER  
Distribution Report Pursuant to Section 13 or 15(d) of  
the Securities Exchange Act of 1934**

For the monthly distribution period from July 1, 2006 to July 31, 2006

Commission File Number of issuing entity: 333-131201-03

**RFMSI Series 2006-S6 Trust**

(Exact name of issuing entity as specified in its charter)

Commission File Number of depositor: 333-131201

**Residential Funding Mortgage Securities I, Inc.**

(Exact name of depositor as specified in its charter)

**Residential Funding Corporation**

(Exact name of sponsor as specified in its charter)

New York  
(State or other jurisdiction of incorporation or  
organization of the issuing entity)

None  
(I.R.S. Employer Identification No.)

c/o Residential Funding Corporation, as Master Servicer  
8400 Normandale Lake Boulevard  
Minneapolis, Minnesota 55437  
(Address of principal executive offices of  
issuing entity)

55437  
(Zip Code)

(952) 857-7000  
(Telephone number, including area code)

N/A  
(Former name, former address, if changed since last report)

Title of Class	Registered/reported pursuant to (check one)			Name of exchange (If Section 12(b))
	Section 12(b)	Section 12(g)	Section 15(d)	
Mortgage Pass-Through Certificates, Series 2006-S6, in the classes specified herein	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No

## **PART I – DISTRIBUTION INFORMATION**

### **ITEM 1 – Distribution and Pool Performance Information.**

The response to Item 1 is set forth in part herein and in part in Exhibit 99.1.

Introductory and explanatory information regarding the material terms, parties and distributions described in Exhibit 99.1 is included in the Prospectus Supplement relating to the RFMSI Mortgage Pass-Through Certificates, Series 2006-S6 (the "Certificates"), dated July 26, 2006, and related Prospectus dated July 14, 2006 (collectively, the "Prospectus"), of the RFMSI Series 2006-S6 Trust (the "Issuing Entity") filed with the Securities and Exchange Commission pursuant to Rule 424(b)(5) under the Securities Act of 1933. The following classes of Certificates were offered under the Prospectus: Class A-1, Class A-2, Class A-3, Class A-4, Class A-5, Class A-6, Class A-7, Class A-8, Class A-9, Class A-10, Class A-11, Class A-12, Class A-13, Class A-14, Class A-15, Class A-16, Class A-V, Class A-P, Class R-I, Class R-II, Class M-1, Class M-2 and Class M-3.

## **PART II – OTHER INFORMATION**

### **ITEM 2 – Legal Proceedings**

Nothing to report.

### **ITEM 3 – Sales of Securities and Use of Proceeds.**

On the closing date of the issuance of the Certificates, the Class B-1, Class B-2 and Class B-3 Certificates were sold to a limited number of qualified institutional buyers, institutional accredited investors or non-United States persons in transactions exempt from registration under the Securities Act of 1933 (the "Act") pursuant to Regulation D, Regulation S or Rule 144A under the Act.

### **ITEM 4 – Defaults Upon Senior Securities.**

Nothing to report.

### **ITEM 5 – Submission of Matters to a Vote of Security Holders.**

Nothing to report.

### **ITEM 6 – Significant Obligors of Pool Assets.**

Inapplicable.

### **ITEM 7 – Significant Enhancement Provider Information.**

Nothing to report.

## **ITEM 8 – Other Information.**

Nothing to report.

## **ITEM 9 – Exhibits**

- (a) Documents filed as part of this report.

Exhibit 99.1 August 2006 Monthly Statement to Certificateholders

- (b) Exhibits required by Form 10-D and Item 601 of Regulation S-K.

Exhibit 10.1 Series Supplement, dated as of July 1, 2006, to the Standard Terms of Pooling and Servicing Agreement, dated as of June 1, 2006, among Residential Funding Mortgage Securities I, Inc., as company, Residential Funding Corporation, as master servicer, and U.S. Bank National Association, as trustee (incorporated by reference to the exhibit with the same numerical designation included in the Report on Form 8-K filed by the Issuing Entity with the Securities and Exchange Commission on August 11, 2006).

Exhibit 10.2 Assignment and Assumption Agreement, dated as of July 28, 2006, between Residential Funding Corporation and Residential Funding Mortgage Securities I, Inc. (incorporated by reference to the exhibit with the same numerical designation included in the Report on Form 8-K filed by the Issuing Entity with the Securities and Exchange Commission on August 11, 2006).

Exhibit 10.3 Confirmation for the Class A-3 Certificates, dated as of July 28, 2006 between Morgan Stanley Capital Services Inc. and U.S. Bank National Association, as trustee on behalf of the RFMSI Series 2006-S6 Trust (incorporated by reference to the exhibit with the same numerical designation included in the Report on Form 8-K filed by the Issuing Entity with the Securities and Exchange Commission on August 11, 2006).

Exhibit 10.4 Confirmation for the Class A-5 Certificates, dated as of July 28, 2006 between Morgan Stanley Capital Services Inc. and U.S. Bank National Association, as trustee on behalf of the RFMSI Series 2006-S6 Trust (incorporated by reference to the exhibit with the same numerical designation included in the Report on Form 8-K filed by the Issuing Entity with the Securities and Exchange Commission on August 11, 2006).

Exhibit 10.5 Confirmation for the Class A-7 Certificates, dated as of July 28, 2006 between Morgan Stanley Capital Services Inc. and U.S. Bank National Association, as trustee on behalf of the RFMSI Series 2006-S6 Trust (incorporated by reference to the exhibit with the same numerical designation included in the Report on Form 8-K filed by the Issuing Entity with the Securities and Exchange Commission on August 11, 2006).

Exhibit 99.1 August 2006 Monthly Statement to Certificateholders

## 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 thereunto duly authorized.

Dated: August 25, 2006

RFMSI Series 2006-S6 Trust  
(Issuing entity)

By: Residential Funding Corporation, as Master Servicer

By: /s/ Darsi Meyer  
Name: Darsi Meyer  
Title: Director

EXHIBIT 99.1 -- MONTHLY STATEMENT TO CERTIFICATEHOLDERS