UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K/A

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 2003

Commission file number 0-20797

RUSH ENTERPRISES, INC.

(Exact name of registrant as specified in its charter)

Texas

(State or other jurisdiction of incorporation or organization)

74-1733016 (I.R. S. Employer Identification No.)

555 IH 35 South, New Braunfels, TX

(Address of principal executive offices)

78130 (Zip Code)

Registrant's telephone number, including area code: (830) 626-5200

Securities registered pursuant to Section 12(b) of the Act:

None

Securities registered pursuant to Section 12(g) of the Act: Common Stock, \$.01 par value (Title of Class)

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 periods that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes 🛛 No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 or the Act). Yes o No 🛛

The aggregate market value of voting stock held by non-affiliates of the registrant as of June 30, 2003 was \$39,874,477 based upon the last sales price on June 30, 2003 on the NASDAQ National Market of \$4.55 for the Company's Class A Common Stock and \$4.82 for the Company's Class B Common Stock.

The registrant had 7,055,726 shares of Class A Common Stock and 7,055,812 shares of Class B Common Stock outstanding on March 8, 2004.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of registrant's definitive proxy statement for the registrant's 2004 Annual Meeting of Shareholders, to be filed with the Securities and Exchange Commission not later than April 30, 2004, are incorporated by reference into Part III of this Form 10-K.

EXPLANATORY NOTE

The Company is filing this amendment to our Annual Report on Form 10-K for the year ended December 31, 2003 (the "Report"), originally filed with the Securities and Exchange Commission on March 30, 2004, in response to comments received from the Securities and Exchange Commission. The sole purpose of this Form 10-K/A is to include corrected certifications of the Chief Executive Officer and Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002 (the "Certifications") contained in the Report. The Certifications originally included in the Report filed March 30, 2004 inadvertently omitted the language " (the registrant's fourth fiscal quarter in the case of an annual report)" from paragraph 4(c).

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

RUSH ENTERPRISES, INC.

By: /s/ W. MARVIN RUSH

Date: November 12, 2004

W. Marvin Rush Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities on the dates indicated:

Signature	Capacity	Date
/s/ W. MARVIN RUSH	Chairman and Chief Executive Officer, Director (Principal Executive Officer)	November 12, 2004
W. Marvin Rush		
/s/ W. M. "RUSTY" RUSH	President, Director	November 12, 2004
W. M. "Rusty" Rush		
/s/ MARTIN A. NAEGELIN, JR.	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	November 12, 2004
Martin A. Naegelin, Jr.		
/s/ RONALD J. KRAUSE	Director	November 12, 2004
Ronald J. Krause		
/s/ JOHN D. ROCK	Director	November 12, 2004
John D. Rock		
/s/ HAROLD D. MARSHALL	Director	November 12, 2004
Harold D. Marshall		
/s/ THOMAS A. AKIN	Director	November 12, 2004
Thomas A. Akin		
	3	

QuickLinks

EXPLANATORY NOTE SIGNATURES

CERTIFICATION

I, W. Marvin Rush, certify that:

1. I have reviewed this annual report on Form 10-K of Rush Enterprises, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

c) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2004

By: /s/ W. MARVIN RUSH

W. Marvin Rush Chairman and Chief Executive Officer (Principal Executive Officer)

QuickLinks

EXHIBIT 31.1

CERTIFICATION

I, Martin A. Naegelin, Jr., certify that:

1. I have reviewed this annual report on Form 10-K of Rush Enterprises, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

c) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2004

By: /s/ MARTIN A. NAEGELIN, JR.

Martin A. Naegelin, Jr. Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)

QuickLinks

EXHIBIT 31.2