

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| OMB APPROVAL                                 |           |
|--|-----------|
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|   |  |  |
|---|--|--|
| 1. Name and Address of Reporting Person*<br><u>Sweeney Joseph J</u><br><br>(Last) (First) (Middle)<br>C/O APPLIED MATERIALS, INC.<br>P.O.BOX 58039, 3050 BOWERS AVE, M/S 2023<br><br>(Street)<br>SANTA CLARA CA 95054<br><br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>APPLIED MATERIALS INC /DE [ AMAT ]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)<br><br>Director 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><u>Sr. VP, GC &amp; Corp. Secretary</u> |
|   | 3. Date of Earliest Transaction (Month/Day/Year)<br><u>01/25/2007</u>                    |  |
|   |  | 6. Individual or Joint/Group Filing (Check Applicable Line)<br><br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br><input type="checkbox"/> Form filed by More than One Reporting Person                   |

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

| 1. Title of Security (Instr. 3)                               | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |            |       | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---|--------------------------------------|--|--------------------------------|---|---|------------|-------|---|--|---|
|   |                                      |  | Code                           | V | Amount  | (A) or (D) | Price |   |  |   |
| Performance Shares (or Restricted Stock Units) <sup>(1)</sup> | 01/25/2007                           |  | A                              |   | 200,000 <sup>(2)</sup>  | A          | \$0   | 229,093 <sup>(3)</sup>  | D  |   |
| Common Stock  |                                      |  |                                |   |   |            |       | 8,542.309 <sup>(4)</sup>  | I  | By the 401(k) Plan                                    |

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) |   | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) |     | 6. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|
|  |  |                                      |  | Code                           | V | (A)  | (D) | Date Exercisable   | Expiration Date |   |  |  |   |  |

**Explanation of Responses:**

- The performance shares (or restricted stock units) will be converted on a one-for-one basis into shares of Applied Materials, Inc. common stock immediately upon vesting.
- The performance shares will vest only after the satisfaction of specified performance goals. Provided such goals are achieved, vesting is scheduled to occur no earlier than in four equal annual installments commencing 12/19/07 (assuming continued employment).
- Number of shares includes 9,000 performance shares previously reported that in the future will be converted on a one-for-one basis into shares of Applied Materials, Inc. common stock immediately upon vesting, which vesting is scheduled to occur in three equal annual installments beginning 8/31/07 (assuming continued employment).
- Increased number of shares reflects periodic payroll acquisitions under 401(k) Plan that are exempt under Rule 16b-3.

/s/ Joseph J. Sweeney                      01/29/2007

\*\* Signature of Reporting Person                      Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.