

| OMB APPROVAL                                 |           |
|----------------------------------------------|-----------|
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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

|                                                                                                                                                                                                                       |                                                                                      |                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Name and Address of Reporting Person*<br><u>Omega Fund V, L.P.</u><br>_____<br>(Last) (First) (Middle)<br>888 BOYLSTON STREET, SUITE 1111<br>_____<br>(Street)<br>BOSTON MA 02199<br>_____<br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>Morphic Holding, Inc. [ MORF ]</u> | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br><input checked="" type="checkbox"/> Director 10% Owner<br>Officer (give title below) Other (specify below) |
|                                                                                                                                                                                                                       | 3. Date of Earliest Transaction (Month/Day/Year)<br>01/21/2021                       |                                                                                                                                                                                          |
| 4. If Amendment, Date of Original Filed (Month/Day/Year)                                                                                                                                                              |                                                                                      |                                                                                                                                                                                          |

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                     |                                                                                               |                                                          |                                                       |
| Common Stock                    | 01/21/2021                           |                                                    | s <sup>(1)</sup>               |   | 264                                                               | D          | \$29.98 <sup>(1)(2)</sup> | 2,810,475                                                                                     | D <sup>(5)</sup>                                         |                                                       |
| Common Stock                    | 01/22/2021                           |                                                    | s <sup>(1)</sup>               |   | 7,303                                                             | D          | \$30.64 <sup>(1)(3)</sup> | 2,803,172                                                                                     | D <sup>(5)</sup>                                         |                                                       |
| Common Stock                    | 01/22/2021                           |                                                    | s <sup>(1)</sup>               |   | 2,438                                                             | D          | \$31.11 <sup>(1)(4)</sup> | 2,800,734                                                                                     | D <sup>(5)</sup>                                         |                                                       |

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) |                                                                                   |                                            |                                                                                                    |                                                           |                                                        |

1. Name and Address of Reporting Person\*  
Omega Fund V, L.P.  
 \_\_\_\_\_  
 (Last) (First) (Middle)  
 888 BOYLSTON STREET, SUITE 1111  
 \_\_\_\_\_  
 (Street)  
 BOSTON MA 02199  
 \_\_\_\_\_  
 (City) (State) (Zip)

1. Name and Address of Reporting Person\*  
Omega Fund V GP, L.P.  
 \_\_\_\_\_  
 (Last) (First) (Middle)  
 888 BOYLSTON STREET, SUITE 1111  
 \_\_\_\_\_  
 (Street)  
 BOSTON MA 02199  
 \_\_\_\_\_  
 (City) (State) (Zip)

1. Name and Address of Reporting Person\*  
Omega Fund V GP Manager, Ltd.  
 \_\_\_\_\_  
 (Last) (First) (Middle)  
 888 BOYLSTON STREET, SUITE 1111  
 \_\_\_\_\_

|                                          |               |           |              |
|------------------------------------------|---------------|-----------|--------------|
| (Street)                                 | <b>BOSTON</b> | <b>MA</b> | <b>02199</b> |
| (City)                                   | (State)       | (Zip)     |              |
| 1. Name and Address of Reporting Person* |               |           |              |
| <b><u>Stampacchia Otello</u></b>         |               |           |              |
| (Last)                                   | (First)       | (Middle)  |              |
| <b>888 BOYLSTON STREET, SUITE 1111</b>   |               |           |              |
| (Street)                                 | <b>BOSTON</b> | <b>MA</b> | <b>02199</b> |
| (City)                                   | (State)       | (Zip)     |              |

**Explanation of Responses:**

- Shares were sold pursuant to a Rule 10b5-1 trading plan.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$29.90 to \$30.05 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$29.97 to \$30.95 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$30.98 to \$31.29 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The reported securities are held directly by Omega Fund V, L.P. ("Omega V"). The reported securities may be deemed to be beneficially owned by each of Omega Fund V GP, L.P. ("Omega V GP"), as the general partner of Omega V, and Omega Fund V GP Manager, Ltd. ("Omega V GP Manager"), as the general partner of Omega V GP. Otello Stampacchia, Anne-Mari Paster and Claudio Nessi (the "Omega Directors") are all the shareholders and directors of Omega V GP Manager and have shared voting and investment power over the shares held by Omega V. Each of Omega V GP, Omega Fund V GP Manager and the Omega Directors disclaims beneficial ownership of the securities reported herein, except to the extent of its or their pecuniary interest therein, if any. Otello Stampacchia is a director of the issuer.

**Remarks:**

/s/ Anne-Mari Paster, as an  
authorized signatory of each    01/25/2021  
Reporting Person

\*\* 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.**