



Form of Proxy – Annual Meeting to be held on May 3, 2024

Appointment of Proxyholder

I/We being the undersigned holder(s) of Ascend Wellness Holdings, Inc. (the "Company") hereby appoint John Hartmann or failing this person, Denise Pedulla

OR

Print the name of the person you are appointing if this person is someone other than the Nominees listed herein:

Empty box for appointing a person other than the nominees listed.

as my/our proxyholder with full power of substitution and to attend, act, and to vote for and on behalf of the holder in accordance with the following direction (or if no directions have been given, as the proxyholder sees fit) and all other matters that may properly come before the Annual Meeting of Ascend Wellness Holdings, Inc. to be held virtually at https://web.lumiconnect.com/226260758 on Friday, May 3, 2024 at 11:00 a.m. (Eastern Time) or at any adjournment or postponement thereof.

Table with 3 columns: Item, For, Withhold. Rows include Election of Directors (Abner Kurtin, Francis Perullo, Scott Swid, Josh Gold, Samuel Brill, John Hartmann) and Appointment of Auditor.

Authorized Signature(s) – This section must be completed for your instructions to be executed.

Signature(s):

Date

I/We authorize you to act in accordance with my/our instructions set out above. I/We hereby revoke any proxy previously given with respect to the Meeting. If no voting instructions are indicated above, this Proxy will be voted as recommended by the Company's Board of Directors. In the absence of specific directions, the proxy will be voted FOR the election of each of the nominee directors in proposal 1 and FOR proposal 2.

Quarterly Reports – Check the box to the right if you would like to receive Quarterly Reports on Form 10-Q by mail. See reverse for instructions to sign up for delivery by email. []

Annual Report – Check the box to the right if you would like to RECEIVE the Annual Report on Form 10-K by mail. See reverse for instructions to sign up for delivery by email. []

MM / DD / YY

INSTEAD OF MAILING THIS PROXY, YOU MAY SUBMIT YOUR PROXY USING SECURE ONLINE VOTING AVAILABLE ANYTIME PRIOR TO 12:00 P.M. (EASTERN TIME), ON TUESDAY, APRIL 30, 2024:

This form of proxy is solicited by and on behalf of Management. Proxies must be received by 12:00 p.m. (Eastern Time), on Tuesday, April 30, 2024.

Notes to Proxy

1. Each holder has the right to appoint a person, who need not be a holder, to attend and represent them at the Meeting. If you wish to appoint a person other than the persons whose names are printed herein, please insert the name of your chosen proxyholder in the space provided on the reverse.
2. If the securities are registered in the name of more than one holder (for example, joint ownership, trustees, executors, etc.) then all of the registered owners must sign this proxy in the space provided on the reverse. If you are voting on behalf of a corporation or another individual, you may be required to provide documentation evidencing your power to sign this proxy with signing capacity stated.
3. This proxy should be signed in the exact manner as the name appears on the proxy.
4. If this proxy is not dated, it will be deemed to bear the date on which it is mailed by Management to the holder.
5. The securities represented by this proxy will be voted as directed by the holder; however, if such a direction is not made in respect of any matter, this proxy will be voted as recommended by Management.
6. The securities represented by this proxy will be voted or withheld from voting, in accordance with the instructions of the holder, on any ballot that may be called for and, if the holder has specified a choice with respect to any matter to be acted on, the securities will be voted accordingly.
7. This proxy confers discretionary authority in respect of amendments to matters identified in the Notice of Meeting or other matters that may properly come before the meeting.
8. This proxy should be read in conjunction with the accompanying documentation provided by Management.



To Vote Your Proxy Online please visit:
<https://vote.odysseytrust.com>

You will require the CONTROL NUMBER printed with your address to the right.

You can attend the meeting virtually by visiting <https://web.lumiagm.com> and entering the meeting ID 226-260-0758.

For further information on the virtual AGM and how to attend it, please view the management information circular of the company. The Meeting Password will be: "ascend2024" case sensitive.

If you vote by Internet, do not mail this proxy.

To request the receipt of future documents via email and/or to sign up for Securityholder Online services, you may contact Odyssey Trust Company at <https://odysseytrust.com/ca-en/help/>.

Voting by mail may be the only method for securities held in the name of a corporation or securities being voted on behalf of another individual. A return envelope has been enclosed for voting by mail.