PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6031481

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	INTELLECTUAL PROPERTY SECURITY AGREEMENT
SEQUENCE:	1

CONVEYING PARTY DATA

Name	Execution Date
HOVER INC.	03/25/2020

RECEIVING PARTY DATA

Name:	SILICON VALLEY BANK
Street Address:	505 HOWARD STREET
Internal Address:	FLOOR 3
City:	SAN FRANCISCO
State/Country:	CALIFORNIA
Postal Code:	94107

PROPERTY NUMBERS Total: 53

Property Type	Number
Patent Number:	8422825
Patent Number:	8649632
Patent Number:	8878865
Patent Number:	9330504
Patent Number:	9430871
Patent Number:	9437033
Patent Number:	9437044
Patent Number:	9478031
Patent Number:	9805451
Patent Number:	9830681
Patent Number:	9830742
Patent Number:	9836881
Patent Number:	9934608
Patent Number:	9953459
Patent Number:	10038838
Patent Number:	10178303
Patent Number:	10127721
Patent Number:	10133830

PATENT REEL: 052229 FRAME: 0986

505984772

Property Type	Number
Application Number:	15025132
Application Number:	15255807
Application Number:	15411226
Patent Number:	10475156
Patent Number:	10297007
Patent Number:	10410412
Patent Number:	10410413
Application Number:	15959684
Application Number:	16040663
Patent Number:	10453177
Patent Number:	10460465
Patent Number:	10515434
Patent Number:	10382673
Application Number:	15701321
Application Number:	16186163
Application Number:	16220900
Application Number:	16257491
Application Number:	16388962
Application Number:	16450717
Application Number:	16510728
Application Number:	16544327
Application Number:	16545067
Application Number:	16555070
Application Number:	16578964
Application Number:	16683168
PCT Number:	US1963092
Application Number:	62872385
Application Number:	62893100
Application Number:	62913663
Application Number:	62933939
Application Number:	62935630
Application Number:	62940135
Application Number:	62983324
Application Number:	62948151
Application Number:	62698977

CORRESPONDENCE DATA

Fax Number: (800)494-7512

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 202.370.4750

Email: ipteam@cogencyglobal.com

Correspondent Name: JOANNA MCCALL

Address Line 1: 1025 VERMONT AVE NW, SUITE 1130

Address Line 2: COGENCY GLOBAL INC.

Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	1204075 SENIOR
NAME OF SUBMITTER:	SARAH MACKIN
SIGNATURE:	/Sarah Mackin/
DATE SIGNED:	03/25/2020

Total Attachments: 11

source=Closing Copy - D06a. Intellectual Property Security Agreement (SVB-Senior) - Hover Inc. (1st LMA)(March 2020)#page1.tif

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "Agreement") is entered into as of March 25, 2020, by and between SILICON VALLEY BANK, a California corporation, with a loan production office located at 505 Howard Street, Floor 3, San Francisco, California 94107 ("Bank") and HOVER INC., a Delaware corporation with its principal place of business located at 539 Bryant Street, #302, San Francisco, California 94107 ("Grantor").

RECITALS

- A. Bank has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in that certain Loan and Security Agreement by and between Bank and Grantor dated as of August 26, 2019, as amended by that certain First Amendment to Loan and Security Agreement by and between Bank and Grantor dated as of March 25, 2020 (as the same may be further amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement). Bank is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in its Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of Grantor to Bank.
- B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of Grantor's obligations to Bank, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

- 1. <u>Grant of Security Interest</u>. To secure Grantor's obligations to Bank, Grantor grants and pledges to Bank a security interest in all of Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the "Intellectual Property Collateral"), including, without limitation, the following:
- (a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

- (b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;
- (c) Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;
- (d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");
- (e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");
- (f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");
- (g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;
- (h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;
- (i) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and
- (j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

Notwithstanding anything to the contrary herein, the Intellectual Property Collateral shall not include any United States intent-to-use trademark or service mark applications filed pursuant to Section 1(b) of the Lanham Act, 15 U.S.C. § 1051, at all times prior to the filing of a "Statement of Use" pursuant to Section 1(d) of the Lanham Act or an "Amendment to Allege Use" pursuant to Section 1(c) of the Lanham Act with respect thereto with the United States Patent and Trademark Office or otherwise.

2. <u>Recordation</u>. Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this Agreement upon request by Bank.

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- 3. <u>Authorization</u>. Grantor hereby authorizes Bank to (a) modify this Agreement unilaterally by amending the exhibits to this Agreement to include any Intellectual Property Collateral which Grantor obtains subsequent to the date of this Agreement, and (b) file a duplicate original of this Agreement containing amended exhibits reflecting such new Intellectual Property Collateral.
- 4. <u>Loan Documents</u>. This Agreement has been entered into pursuant to and in conjunction with the Loan Agreement, which is hereby incorporated by reference. The provisions of the Loan Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Bank with respect to the Intellectual Property Collateral are as provided by the Loan Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.
- 5. <u>Execution in Counterparts</u>. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or in electronic (i.e., "pdf" or "tif" format) shall be effective as delivery of a manually executed counterpart of this Agreement.
- 6. <u>Successors and Assigns</u>. This Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns in accordance with the Loan Agreement.
- 7. Governing Law. This Agreement and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Agreement and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the laws of the United States and the State of California, without giving effect to any choice or conflict of law provision or rule (whether of the State of California or any other jurisdiction).

[Signature page follows.]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

HOVER IN the by:

By adam J. altman

Name: Adam J. Altman

Title: Chief Executive Officer

BANK:

SILICONSMALLEY BANK

27D8598596484AD...

Name: Marshall Hawks

Title: Managing Director

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EXHIBIT A

Copyrights

Registration/ Application Number Registration/ Application <u>Date</u> Description

None.

EXHIBIT B

Patents

10,038,838 Ho	9,953,459 H0	9,934,608 H	9,836,881 H	9,830,742 HO	9,830,681 HC	9,805,451 H	9,478,031 H	9,437,044 H	9,437,033 H	9,430,871 HO	9,330,504 H	8,878,865 H	8,649,632 HO	8,422,825 H	Patent Ke
HOV018 Directed Image Capture	HOV005 Computer Vision Database Pla Dimensional Mapping System	HOV016 Graphical Overlay Guide for Interface	HOV003 Heat Maps for 3D Maps	HOV009C1 Scale Error Correction in a	HOV009I1 Multi-Dimensional Mc Correction	HOV010 Building Material Clas	HOV009 Scale Error Correction in a	HOV007 Method and System of Building Facades in a ' System	HOV006 Generating 3D Buildir Orthogonal Images	HOV002D2 Method of Generating Three Using Ground Based Oblique	HOV004 3D Building Model Construction Tools	HOV001 Three-Dimensional Map System	HOV002D1 System and Method fo 3D Building Models	HOV002 Method and System for Gevisualization and Analysis Imagery	Reference I
re	base Platform for a Three- System	ide for Interface	ps	in a Multi-Dimensional Model	Multi-Dimensional Model Dimensioning and Scale Error Correction	Building Material Classifications from Imagery	in a Multi-Dimensional Model	Method and System of Displaying and Navigating Building Facades in a Three-Dimensional Mapping System	Generating 3D Building Models with Ground Level and Orthogonal Images	Method of Generating Three-Dimensional (3D) Models Using Ground Based Oblique Imagery	onstruction Tools	ap System	System and Method for Correlating Oblique Images to 3D Building Models	Method and System for Geometry Extraction, 3D Visualization and Analysis Using Arbitrary Oblique Imagery	Invention Title
Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Status

10,460,465	10,453,177	16/040,663	15/959,684	15/942,786	10,410,413	10,410,412 15/942,733	15/817,755	10.297.007	10,475,156 15/817,620	15/411,226	15/255,807	15/025,132	12834063.5	10,133,830	10,127,721	10,178,303	App#
60452-0013	HOV009I1C3	HOV018C1	HOV005C1		HOV016I2	HOV016I1		HOV009I1C2	HOV0091IC1	HOV022I1	HOV006C1	HOV008USPCT	HOV001EPPCT	HOV017	HOV007C1I1	HOV018.1I1	Reference
Method For Generating Roof Outlines From Lateral	MULTI-DIMENSIONAL MODEL DIMENSIONING AND SCALE ERROR CORRECTION	Directed Image Capture	Computer Vision Database Platform for a Three- Dimensional Mapping System		Image Capture for a Multi-Dimensional Building Model	Real-Time Processing of Captured Building Imagery		Multi-Dimensional Model Dimensioning and Scale Error	Multi-Dimensional Model Dimensioning and Scale Error Correction	3D Building Analyzer	Generating Multi-Dimensional Building Models with Ground Level Images	Estimating Dimensions of Geo-Referenced Ground- Level Imagery Using Orthogonal Imagery	Method and System for an Interactive Three- Dimensional Map	Scaling in a Multi-Dimensional Building Model	Method and System For Displaying and Navigating an Optimal, Multi-Dimensional Building Model	Directed Image Capture	Invention Title
Granted	Granted	Allowed	Published		Granted	Granted		Granted	Granted	Published	Published	Published	Withdrawn	Granted	Granted	Granted	Status

App# Reference Invention Title Status 10.515,134 HOV0091IC4 AUSENTO FACADES Granted 10.515,134 HOV0091IC4 AUTOMATERTO FACADES Granted 10.382,673 60452-0011 Automated Guide For Image Capturing For 3D Model Creation Granted 15/701,321 60452-0012 Trained Machine Learning Model For Estimating Published 16/186,163 HOV007CIIIC1 MAETHOAD SYSTEM FOR DISPLAYING AND LIVIT-DIMENSIONAL BUILDING MODEL Allowed 16/220,900 60452-0014 Generating and Validating a Virtual 3D Representation Application 16/237,491 HOV026 3D BUILDING MODEL MATERIALS AUTO-POPULATOR Published 16/388,962 HOV024 Threshod for Change Identification When Comparing Published Application 16/388,962 HOV024 Imagery Threshod for Generating Roof Outlines From Lateral Application 16/388,962 HOV026 Generating Roof Outlines From Lateral Published 16/389,962 HOV0662 Method For Generating Roof Outlines From Lateral Published 16/380,962 HOV0662 Method For Generating Roof	Published	ADJUSTMENT OF ARCHITECTURAL ELEMENTS RELATIVE TO FACADES	HOV009I1C5	16/578,964
Images	Allowed	REAL-TIME PROCESSING OF CAPTURED BUILDING IMAGERY	HOV016I1C1	16/555,070
Reference Invention Title Inages Inages HOV009IIC4 ADJUSTMENT OF ARCHITECTURAL ELEMENTS HOV009IIC4 Automated Guide For Image Capturing For 3D Model Creation 60452-0011 Automated Guide For Image Capturing For 3D Model Creation HOV007CIIICI Trained Machine Learning Model For Estimating Structure Feature Measurements HOV007CIIICI METHOD AND SYSTEM FOR DISPLAYING AND NAVIGATING AN OPTIMAL MULTI-DIMENSIONAL BUILDING MODEL Generating and Validating a Virtual 3D Representation of a Real-World Structure FORDILATOR HOV026 ADB BUILDING MODEL MATERIALS AUTO-POPULATOR POPULATOR Threshold for Change Identification When Comparing Imagery Automated Guide For Image Capturing For 3D Model Creation Automated Guide For Image Capturing For 3D Model Images HOV06C2 GENERATING MULTI-DIMENSIONAL BUILDING MODEL MAGES	Published	IMAGE CAPTURE FOR A MULTI-DIMENSIONAL BUILDING MODEL	HOV016I2C1	16/545,067
Reference Images HOV00911C4 ADJUSTMENT OF ARCHITECTURAL ELEMENTS ALHOMATOR TO FACADES Automated Guide For Image Capturing For 3D Model Creation 60452-4011 Trained Machine Learning Model For Estimating Structure Feature Measurements HOV007C111C1 METHOD AND SYSTEM FOR DISPLAYING AND NAVIGATING AN OPTIMAL MULTI-DIMENSIONAL BUILDING MODEL 60452-4014 Generating and Validating a Virtual 3D Representation of a Real-World Structure HOV026 POPULATOR HOV024 Threshold for Change Identification When Comparing Imagery Automated Guide For Image Capturing For 3D Model Creation Method For Generating Roof Outlines From Lateral Images	Allowed	GENERATING MULTI-DIMENSIONAL BUILDING MODELS WITH GROUND LEVEL IMAGES	HOV006C2	16/544,327
Images	Published	Method For Generating Roof Outlines From Lateral Images	60452-0017	16/510,728
Images I	Published	Automated Guide For Image Capturing For 3D Model Creation	60452-0015	16/450,717
Reference Invention Title Images Images HOV009I1C4 ADJUSTMENT OF ARCHITECTURAL ELEMENTS 60452-0011 Automated Guide For Image Capturing For 3D Model Creation Trained Machine Learning Model For Estimating Structure Feature Measurements HOV007CIIICI METHOD AND SYSTEM FOR DISPLAYING AND NAVIGATING AN OPTIMAL MULTI-DIMENSIONAL BUILDING MODEL Generating and Validating a Virtual 3D Representation of a Real-World Structure HOV026 3D BUILDING MODEL MATERIALS AUTO-POPULATOR	Application	Threshold for Change Identification When Comparing Imagery	HOV024	16/388,962
Reference Invention Title Images ADJUSTMENT OF ARCHITECTURAL ELEMENTS RELATIVE TO FACADES 60452-0011 Automated Guide For Image Capturing For 3D Model Creation Trained Machine Learning Model For Estimating Structure Feature Measurements METHOD AND SYSTEM FOR DISPLAYING AND NAVIGATING AN OPTIMAL MULTI-DIMENSIONAL BUILDING MODEL 60452-0014 Generating and Validating a Virtual 3D Representation of a Real-World Structure	Published	3D BUILDING MODEL MATERIALS AUTO-POPULATOR	HOV026	16/257,491
Reference Invention Title Images Images ADJUSTMENT OF ARCHITECTURAL ELEMENTS RELATIVE TO FACADES AUtomated Guide For Image Capturing For 3D Model Creation 60452-0011 Automated Guide For Image Capturing For 3D Model Creation Trained Machine Learning Model For Estimating Structure Feature Measurements HOV007C1IIC1 METHOD AND SYSTEM FOR DISPLAYING AND NAVIGATING AN OPTIMAL MULTI-DIMENSIONAL BUILDING MODEL	Application		60452-0014	16/220,900
Reference Invention Title Images Images HOV00911C4 ADJUSTMENT OF ARCHITECTURAL ELEMENTS RELATIVE TO FACADES 60452-0011 Automated Guide For Image Capturing For 3D Model Creation Trained Machine Learning Model For Estimating Structure Feature Measurements	Allowed	METHOD AND SYSTEM FOR DISPLAYING AND NAVIGATING AN OPTIMAL MULTI-DIMENSIONAL BUILDING MODEL	HOV007C111C1	16/186,163
Reference Invention Title HOV009I1C4 Images HOV009I1C4 ADJUSTMENT OF ARCHITECTURAL ELEMENTS RELATIVE TO FACADES 60452-0011 Automated Guide For Image Capturing For 3D Model Creation	Published	Trained Machine Learning Model For Estimating Structure Feature Measurements	60452-0012	15/701,321
Reference Invention Title HOV00911C4 ADJUSTMENT OF ARCHITECTURAL ELEMENTS RELATIVE TO FACADES	Granted	Automated Guide For Image Capturing For 3D Model Creation	60452-0011	10,382,673
Reference Invention Title	Granted	ADJUSTMENT OF ARCHITECTURAL ELEMENTS RELATIVE TO FACADES	HOV009I1C4	10,515,434
Reference Invention Title		Images		
	Status	Invention Title	Reference	App#

	62/698,977	62/948,151	62/983,324	62/940,135	62/935,630	62/933,939	62/913,663	62/893,100	62/872,385	PCT/US19/63092	16/683,168	App#
	HI004	124654-5003PR	60452-0018	HI003	HI002P2	HI002	124654-5001PR	60452-0016	HOV025	60452-0019	HOV016I1C2	Reference
	Systems and Methods for Image Capture	3D Reconstruction Using Augmented Reality Frameworks	Structure Association using Co-Planar structure features	System and Methods for Identifying Correspondences Across Images	Systems and Methods for Selective 3D Compositing	Systems and Methods for Selective Image Compositing	Interactive Path Tracing on the Web	Automatic Generation of Architectural Feature Boundary Representations	Geometric Assumptions when Comparing Imagery	Generating and Validating a Virtual 3D Representation of a Real-World Structure	Real-time Processing of Captured Building Imagery	Invention Title
	Application	Application	Application	Application		Application	Application	Application	Application	Application	Application	Status

EXHIBIT C

Trademarks

HOVER - United Kingdom	HOVER - European Union	HOVER – Canada	HOVER – Australia	HOVER and Logo	HOVER Logo	HOVER	<u>Description</u>
						4,813,128	Registration Number
						09/15/2015	Registration Date
UK3407862	018083192	1971839	2017040	88451599	88451596	85520802	Application No.
6/19/2019	6/19/2019	6/19/2019	6/19/2019	05/29/2019	05/29/2019	01/19/2012	Application Date

EXHIBIT D

Mask Works

Description

Registration/ Application Number Registration/ Application <u>Date</u>

None.

PATENT REEL: 052229 FRAME: 0999

RECORDED: 03/25/2020