MEMORANDUM

Date: February 8, 2018

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

Re: World View Balloon Rupture on December 19, 2017

Supervisor Miller placed an item on the Board of Supervisor’s meeting agenda for February 6, 2018 regarding the above-referenced matter; unfortunately, she did not request information readily available to answer her questions. This memorandum will respond to her January 12, 2018 written memorandum (Attachment 1) as well as any oral discussion that took place at the meeting.

The President and CEO of World View, Jane Poynter and Chief Technology Officer Taber MacCallum, both attended the February 6, 2018 meeting to answer any questions the Board may have regarding World View.

1. Investigation of Balloon Rupture
   World View has commissioned an independent investigation to be conducted by a board of world-class experts in aerospace and aviation incident investigation. The investigation has begun and the County will be a participant to verify the independence of the investigation body. The board is led by Mr. Wayne Hale, a former National Aeronautics and Space Administration (NASA) Space Shuttle program manager and one of the most highly regarded experts in aerospace safety in the world. Additional investigation board members will be not be named at this time, in deference to the integrity of the process and will be available upon publication of the final report. Mr. Hale’s brief experience associated with this review is as follows:

   • Mr. Hale retired from NASA on July 31, 2010 as the Deputy Associate Administrator of Strategic Partnerships, Space Operations Mission Directorate. He has previously served as the Space Shuttle Program Manager and the Shuttle Launch Integration Manager. Wayne was a Space Shuttle Flight Director for 40 Space Shuttle flights, and prior to that a Propulsion Officer for 10 early Space Shuttle flights.

   • Mr. Hale has received special honors and awards such as NASA Outstanding Leadership Medals in 1999, 2005, and 2007; NASA
Space Flight Awareness Leadership Award 2002; NASA Exceptional Service Medal 1992; National Space Club Goddard Memorial Astronautics Engineer of the Year 2007; and National Air and Space Smithsonian Achievement Award of the Year 2007.

- Mr. Hale holds a Bachelor of Science in Mechanical Engineering from Rice University and a Master of Science in Mechanical Engineering from Purdue University.

In addition, Pima County’s representative and individual who will closely review this investigation is John Voorhees, Assistant County Administrator. Mr. Voorhees is uniquely qualified to represent the County in this matter, as he is a retired senior United States (US) Air Force officer with significant command experience as well as accident investigation experience. He is a US Air Force training flight safety officer with certification equivalent to National Transportation Safety Board and Federal Aviation Administration investigators.

2. Damages to the leased World View Building owned by Pima County
Immediately after the balloon ruptured, Facilities and Risk Management staff inspected the facilities and documented the damage that is primarily superficial. All damage will be fully repaired at no cost to Pima County. In fact, World View and Pima County received the first check for property damage repair from the insurance carrier for $200,000. An architectural firm and an engineering firm have been retained by World View to identify repairs required as a result of the accident. Both firms will monitor the repair work until completed and final approval issued by the insurance company, World View and Pima County. There have been no claims filed by any other party for damage that may have been sustained due to the rupture. Attachment 2 is a Facilities Management Report of the damages. Attachment 2A is a field report from Schneider Structural Engineers. Attachment 2B is a summary report from Swaim Associates LTD, of the damage to the building.

3. Damages to Surrounding Properties
The County has not received any claims of damages from surrounding property owners.

The Raytheon Airport Site facilities sustained minor damage and disruptions in business operations as a result of the incident. Additionally, Raytheon continues to be concerned about the World View “Test Planning” process and the safety reviews/oversight of those test plans for activities on the “Launch Pad”. We have committed to work directly with the World View team to communicate and address
The Honorable Chairman and Members, Pima County Board of Supervisors
Re: World View Balloon Rupture on December 19, 2017
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Raytheon’s concerns and World View leadership has been supportive of that partnership.

4. Injuries
There were no reported injuries based on the balloon rupture. As is standard World View practice both the Tucson Fire Department and Tucson Police Department were onsite for the testing activity that led up to the balloon rupture. Following standard protocol, World View had also notified the Tucson Airport Authority, Federal Aviation Administration and Raytheon among others, of the test. We understand three employees complained of ringing in their ears, however there have been no other reported injuries at the time of the accident nor any since. Any expenses related to the employees would be covered by World View’s workers’ compensation insurance. No medical claims or referrals have been made to any medical provider by Pima County as a result of the balloon rupture.

5. State Review
The Arizona Division of Occupational Safety and Health (ADOSH) conducted an investigation of the incident and issued no citations or violations of safety regulations. The case review by ADOSH closed on January 4, 2018. Risk Management contacted ADOSH to confirm that the listed Inspection Detail (Attachment 3), Inspection Number 1285260.015, is available on the US Department of Labor-OSHA website at https://www.osha.gov/pls/imis/establishment.html.

6. Hazardous Materials Stored on Property or used in the Operations, including hydrogen gas
The Environmental Protection Agency (EPA) and Arizona Department of Environmental Quality (ADEQ) regulations do not apply to storage, use, or release, of hydrogen gas. Their regulations pertain to air quality and management of hazardous waste. Hydrogen gas is not subject to these regulations and is not considered an air pollutant or a hazardous waste.

The Clean Air Act regulates the accidental release, prevention/risk management plan rule to hydrogen and is applicable if hydrogen is stored or used at the facility if the total quantity of hydrogen exceeds 10,000 pounds. This would require at least 13 fully loaded standard hydrogen tube trailers to exceed this weight of hydrogen. Photos available show less than this quantity of hydrogen present at the site.

Department of Transportation hazardous material regulations apply to the transportation of materials to the site and therefore are not applicable under the use or storage section of the County contract, Section 7.3.1, requires written consent for hazardous materials, “other than such hazardous materials that are necessary or
useful to WV’s business…” Hence, written consent for the use of hydrogen is not required; as it is used as part their business.

We are not aware of any regulated hazardous materials present at the site that would require written consent from the County.

7. Insurance
The following information is regarding certificates and/or evidence of insurance (Attachment 4), both liability and property, that are in place for World View Enterprises:

- Commercial General Liability Insurance is listed as $5 million for each occurrence; including no-fault medical expense coverage for $5,000 per person; and personal and injury insurance $3 million per occurrence.

- Workers Compensation Insurance as required by Arizona statute for coverage by employer for any employee’s work related injury and Employers’ Liability Insurance with policy limits of $1 million for each accident and for each employee.

- Property Insurance coverage for replacement cost of the building with the insurance value of $12.2 million and the SpacePort insured at $2.2 million. Pima County is also a loss payee. Policy also includes insurance coverage for World View’s business personal property with limits of $3 million.

In addition, the replacement cost of the building is insured at $12.2 million; SpacePort insured at $2.2 million; and Business Personal Property insured at $3 million with Pima County as a Loss Payee on the policy.

8. Vehicles
There were no County vehicles used at the World View facilities. World View vehicles are all gasoline or diesel, with internal combustion engines.

9. Related Economic Development benefits of World View
The location of World View kicked off a number of space related businesses seeking to relocate or expand in Pima County. Vector Space was a direct attraction initiated by World View senior management’s meetings with Vector that included positive comments on the County’s support and the development of the Aerospace Research Campus. World View’s customer list includes the “Who’s Who” of the space business with many coming to Spaceport Tucson to collaborate on and participate in mission development and launches.
World View’s industry presence and reputation has generated numerous visits to Tucson for technical and operational discussions. The Federal Aviation Administration’s Office of Commercial Space Transportation held a discussion related to the management of the airspace at World View with a wide range of attendees.

The annual meeting of the Commercial Spaceflight Federation (CSF) was held at World View in 2017 exposing World View, Spaceport Tucson and the Aerospace Research Campus to the world’s leaders in space exploration. Executive members of the CSF include commercial spaceflight developers, operators and spaceports. Associate members include suppliers supporting commercial spaceflight, with recent members including suppliers of mission support services and suppliers of training, medical and life-support products and services.

One of the CSF Associate Members is BRPH, an engineering and consulting firm based in Florida with contracts across a wide range of space-oriented facilities. BRPH has referred a number of space-focused companies and investors to the Aerospace Research Campus including two national developers that proposed to build the Vector headquarters and manufacturing facility as well as other prospects.

Since announcing World View, Pima County and Sun Corridor, Inc. have proposed the Aerospace Research Campus to seven space related companies. More importantly, we are currently in discussions with a microsatellite and rocket manufacturing company looking to expand in the West. The concentration of space related companies like Raytheon, World View, and Vector, as well as the leadership of The University of Arizona in space exploration, and our excellent workforce, make the Aerospace Research Campus an attractive location for other companies. World View’s international reputation has been a major source of attraction and awareness for the Aerospace Research Campus.

Summary
I have visited the World View headquarters at least twice since the accident and can confirm that the reports of superficial damage are accurate and that repairs are either underway or have been completed and financed with insurance proceeds. Upon completion of the independent investigation, the accident review board will submit details of its findings and recommendations to World View to ensure no such incident can or will occur in the future. This report will be made available to Pima County for our information and comment. World View staff and personnel have always demonstrated a significant commitment to safety and professionalism, in particularly how they have handled this incident. We very much appreciate having an innovative aerospace company such as World View call Tucson home.
World View is a high economic development source. They have grown rapidly from 44 employees in March of 2017 to 72 employees earning an average wage of $73,738 in December of 2017 with 20 unfilled positions ready for qualified employees. Finding software, mechanical and electrical engineers continues to be a challenge for World View.

CHH/lab

Attachment

c: Jane Poynter, President and CEO, World View Enterprises, Inc.
Taber MacCallum, Chief Technology Officer, World View Enterprises, Inc.
Dr. John Moffatt, Director, Economic Development
Tom Burke, Deputy County Administrator for Administration
Lisa Josker, Director, Facilities Management
Lauren Eib, Risk Manager, Finance and Risk Management
MEMORANDUM

To: Julie Castaneda, Clerk of the Board

Date: January 12, 2018

From: Ally Miller, District 1 Supervisor

Pima County Board of Supervisors

Re: Agenda Item for February 6, 2018 Board of Supervisor's Meeting

Please place the following item on the February 6, 2018 Board of Supervisors Agenda:

Discussion and possible action related to Agenda Item: Discussion and Vote World View Explosion

A. Discussion and Vote: To Initiate Investigation of Hydrogen Balloon explosion which occurred at the Pima County Taxpayer owned Space Port operated by World View on December 19, 2017.

B. Action requested on the attached list of concerns related to this incident include but are not limited to:

The Pima County Board of Supervisors entered into this agreement with World View in January 19, 2016 per the recommendation of the County Administrator. We must ensure taxpayer interests and residents of this community are protected. It is especially disturbing that the Board of Supervisors has not received any communication from World View regarding this explosion. Had the Arizona Daily Independent not published a video of the explosion, it may have been completely downplayed as a minor incident. It is a miracle that no one was seriously injured or killed by this violent explosion. It could have been far worse. The residents of this community deserve answers and it is incumbent upon the Board of Supervisors to provide these answers.
I request that Pima County Board of Supervisor’s require World View to conduct a full investigation, at their expense, to determine the cause as well as a report of corrective actions identified to prevent any future incidents.

Following is a list of concerns that has been identified for discussion, action and vote.

1. Is an outside agency required to lead this investigation to ensure full transparency to the taxpayers?
2. Require World View to provide a listing of all damages including costs to repair any damage on Pima County owned property or on any and all neighboring property.
3. Require World View to provide reports of any injuries that resulted from this explosion.
4. Evaluation as to whether Federal and/or State statutes violated in the handling of hazardous materials or in the operations at World View, including the use of hydrogen, as well as any other explosive or regulated hazardous materials. The following regulations and Statutes should be reviewed by an appropriate agency/subject matter expert to ensure compliance in reference to this incident as outlined per the terms of the Contract:
   • 40 USC 260 (RCRA)
   • 42 USC 7401 (Clean Air)
   • ARS Title 49 Chapter 3
   • ARS Title 49 Chapter 4
   • 49 CFR 172.01 DOT HAZMAT Table
   • 40 CFR Part 302 EPA
5. According to this Contract (Section 7.3.1), Pima County must provide express written consent for hazardous materials being used or stored on this property. Did Pima County issue written consent for any hazardous materials including but not limited to hydrogen?
6. According to this contract, World View is to maintain compliance with all laws and regulations, as well as coordinate activities with the Tucson Airport Authority. Was this test coordinated with the Tucson Airport Authority? World View to provide documentation.
7. Per the Contract Terms in the Operating agreement (Section 1.5) World View had agreed to operate this facility in a safe manner in compliance with all laws and regulations. Will hydrogen be allowed on site?

8. Listing of all hazardous materials on site to be provided by World View.

9. Per the contract terms for the lease-purchase agreement, Pima County has a right to review and reasonably adjust the types and limits of insurance required. All policies are to name Pima County as an additional Insured per the terms of the agreements. In light of the explosive materials being used at World View, it is reasonable at this time to review and increase the required insurance coverage on County owned facilities. $1 million per each occurrence is woefully inadequate. The current insurance requirements put the taxpayers at extremely high risk for liability. Request that Pima County Risk Management analyze similar operations and present a report of insurance recommendations to the Pima County Board of Supervisors.

10. It is important to understand what types of vehicles are being utilized at the Pima County owned facility housing World View. For example; are the vehicles containing hydrogen and helium considered World View property under the terms of the insurance agreements? If so, these automobile coverages should be discussed and adjusted, if necessary. Pima County Risk Management should analyze and present a report with recommendations to the Pima County Board of Supervisors.

11. World View to provide a copy of the Property Insurance (Section 10.4) showing the full replacement cost requirement for the facility along with coverage amounts which identify Pima County named as additional insured. With required notifications clause if the Policy is cancelled or lapsed (Pima County must be notified).

12. Identify other concerns to be addressed as related to this incident.
On December 19, 2017, Tony Cisneros and I went to the World View Building to observe reported damage to the building. While there, representatives from Pima County Finance and Risk Management and Development Services departments showed up. We spoke with Maricela Solis and Mark Workman representatives from World View and Riley Rasmussen from Barker Morrissey Contracting, the building contractor. Tony and I walked unaccompanied through the building interior spaces and around the exterior damaged area. We did not walk out to the launch pad. We made the following observations:

1. Multiple cracks on drywall at inner and outer corner intersections and at doorframes throughout the building.
2. One broken window.
3. Fire alarm went off in the building and fire pump was running.
4. Nearly every roll up door facing the launch pad had come off the tracks with multiple damage to doors and tracks.
5. One light fixture fell, one was left dangling in the bay area
6. Fire sprinkler water damage at walls and insulation.
7. HVAC fabric ductwork pulled away from the metal HVAC transition in high bay area
8. Fire sprinkler went off in manufacturing in the bay area
9. Water damage at ceiling insulation in the bay area
10. Building exterior (launch pad side) there is some displacement of panels at tower;
11. There may be some damage at high door at tower
12. There is a horizontal Line of denting at aluminum cladding at about three feet high on building tower
13. Aluminum soffit and panels at the observation area next to the tower is damaged
14. Development Services inspectors will be coming out to inspect during repair
15. Mostly surface damage from the blast
16. World View is contacting the architect and engineer to have them do a damage assessment, they will need a damage assessment permit. Once drawings and other documents are completed by the architect for the repair work, World View will move forward and obtain a permit for repairs.
17. Fire alarm and sprinkler systems are being recharged and will be put back on line by noon tomorrow.
18. Lifts, elevators and bridge crane have been “locked out / tagged out” for inspection and recertification if necessary.

Facilities Management’s assessment of building damage was limited to what we could see from the ground. From our standpoint, the damage, while extensive, looked to be mostly superficial and not structural. We left with the knowledge that World View had already contacted the architect and contractor of record and the appropriate in-depth inspections, reports and necessary permits would be forthcoming.
January 3, 2018

Phil Swaim
Swaim Associate, LTD Architects AIA
7350 East. Speedway, Suite 210
Tucson, AZ  85710

RE: World View Head Quarters Blast Damage Report
Tucson, AZ
SSE Project number: 116013

Mr. Swaim,

On December 22, 2017, Ron Schneider, PE, a representative of Schneider Structural Engineers, visited the referenced building to review damage caused by an explosion. We were informed that the explosion occurred when a balloon that was being tested accidentally had its gas ignited and created a blast force. You asked us to determine if any structural damage was caused due to the blast force. We observed the following:

- Store front glass system damaged along with broken glass pane.
- Bracing rod anchors displaced. See photos 1 and 5.
- Interior wall girts bent. See photos 4, 6 – 9.
- Walls panels buckled at the tower. Translucent wall panels at tower overstressed and damaged.
- Roof panels damaged between and at roof supports due to uplift. See photos 10 – 13.
- Light gage interior non-bearing walls overstressed and damaged. See photos 2 and 3.
- We also noted damage to the garage doors on the north side which we were told were blown inward.

Conclusions:

Based upon these observations, no major damage was observed to the main structural frames of the building and structure is safe to occupy. This assumes that all non-structural elements damaged are cordoned off as was when we visited the site. We also reviewed closely the tower structure and roof purlins where the roof panels were noticeably bent and found no apparent damage to the tower or roof purlins. The building experienced localized blast loading that
potentially went beyond the design loads. However, the loads to the overall lateral load resisting system appeared to be below the design loads.

It is our opinion that the damage to the wall panels on the tower is due to the tower deflecting laterally and the panels being grade supported and when the tower moved back into position it crushed the panels downward. As for the other damage on the roof panels and interior wall, this was caused by the internal pressure when the garage doors failed.

Recommendations:
Inspect all bracing rod anchor points (horizontal and vertical) and reset them in the frame appropriately.

Where girts have been distorted and the steel is permanently bent out of its original shape, either hammer then back into the original shape or sister them up with a new girt.

Where exterior wall panels have buckled, or translucent wall panels have bent and turned white, replace with new panels.

Dismantle all interior walls at the mezzanine edges that look over the balloon and assemble bays and inspect and replace damaged drywall studs.

Have metal building manufacture review damaged roof panels to make sure that their waterproof features are still effective with the damage they experienced. If not, then the panels need to be repaired or replaced.

Schneider Structural Engineers services have been performed with the appropriate care and judgment that can be reasonably expected from similar professionals in this area. The opinions noted in this report are based upon limited information. Schneider Structural Engineers does not express or imply any warranty of the structure, nor do we guarantee that we have observed all areas of the existing structure or identified all deficiencies. Certain assumptions regarding existing conditions have been made which cannot be verified without expending additional sums of money or damaging additional portions of the building.

Sincerely,

Schneider Structural Engineers

Ron Schneider, PE
Principal
Photo #1 – Hillside washer displaced
Photo #2 – Interior non-bearing wall failure with marks on column showing amount of movement experienced.
Photo #3 – Crack in observation wall failure
Photo #4 - Damage in high bay area showing girt damage
Photo #5 – More hillside washers displaced
Photo #6 – Girt failure due to high internal pressures
Photo #7 – More girt issues
Photo #8 – More girt issues
Photo #9 – More girt issues
Photo #10 – Roof Panel issue due high internal pressures
Photo #11 – More Roof Panel issues
Photo #12 – More Roof Panel issues
Photo #13 – More Roof Panel issues
January 03, 2017

World View Enterprise Inc Headquarters

Damage Report

Date: December 21, 2017
Present: Riley Rasmussen, Mark Workman, Tim Smith, Phil Swaim, Jason Baiocchi

This review includes an inspection of the building after an explosion on the launch pad occurred when a balloons gas ignited.

General
- Cracked drywall around door frames in frame walls
- Storefront clips loose
- Lateral shift in glass on east wall of mezzanine
- Fire sprinkler escutcheons loose
- Drywall separation at all columns
- All walls on east and south wall of mezzanine bowed and cracked
- Fire alarm system needs to be checked
- Reposition all security cameras and perform systems check
- Re-commission crane

Mezzanine
- Cracked drywall at east and west corners of window 4
- Cracked concrete at column grid 3A around shear cables
- Cracking all along grid 10
- Flush bolt on door 220A bent, door twisted
- Window 5 (all) gaskets popped out / lateral shifted glass
- Walls along Grid D bowed

Women’s - 206
- Fire sprinkler escutcheons loose
- Cracking at top of column
- Seam exposed in ceiling
- Light fixtures pushed out

Men’s - 207
- Fire sprinkler escutcheon loose
- Light fixtures pushed out

Elevator
- Cracking at southwest seam

Mission control - 203
- Cracked drywall at all corners of window 8
- Cracked drywall at top of window 14
- Mullion clip fell off on east side of window 12
- Cracked drywall around conduits at east wall
- Cracked drywall around beam 8
- Cracked drywall around east side of window 9

Break out - 217
- Ceiling grid fell

Phone - 222 & 221
- Ceiling tile shifted
- South wall shifted ½”

Phone - 208, 209, 210
- Ceiling tile shifted

Break Area - 102
- Door 101 twisted
- Window 15 top mullion bent / twisted
- Cracked drywall on east wall
- Door 104 top mullion twisted
- Cracked drywall at grid B penetrations through wall east of door

Wellness - 103
- Day light at northeast corner
- Separation of wall from both columns

Thermotron Room - 104
- Check Thermotron pipes
- Fiberglass panels detached
- Drywall at bottom of beam at grid 7 separated

Avionic Room - 109
- Cracked drywall at corners of door 109A
- Cracked drywall at southeast corner
- Water below humidifier
- Scrim detached in ceiling
- Floor base buckled

Server Room - 106
- Cracked drywall at east side
- Cracked drywall at top of grid 9/a9

Highbay
- All roll up doors damaged
- Door 115 security does not work / will not lock
- Scrim near doors ripped
- Door 116A does not latch
- Metal panels west of door 116A bent
- Closure strip west of door 116 detached
- Panel on both sides of door 116B bent
• Panel corners at all columns bent in
• Door 117 bent
• East duct sock disconnected
• Door 124A cover bent
• Door 127 cracked at door frame
• Humidification PVC pipe broken at grid 17
• Thermostats pushed off walls.
• Conduit brackets broken all along wall

Restrooms - 125 & 126
• Cracked drywall at northeast corner
• Fire sprinkler escutcheons detached

Avionics - 108
• Cracked drywall all along east wall
• Cracks around conduit pipes
• Scrim at southwest detached

Balloon Bay -129
• North wall bent and detached at top
• Water damage at insulation from sprinkler
• Water splatter on walls from sprinkler
• WIFI access point popped off wall
• Panels west of door 124 bent
• Weather stripping on door 129 removed
• Scrim detached at ceiling
• Doors 111, 111B, 111C, 111A cracked at frame corners

Exterior
• Mission Control soffit detached
• Thermotron escutcheons under Mission Control detached
• Translucent panels on tower detached and bent
• Metal panels on tower bent
• East bay at grid 26 Styrofoam loose and removed from roof

Electrical Room - 105
• Circuit breaker loose on wall

This report represents Swaim Associates’ understanding of the items identified during the site walk. If any corrections or additions are required, please notify this office immediately.

Respectfully Submitted,

Jason Baiocchi
Occupational Safety and Health Administration

Inspection Detail

Case Status: CLOSED

Inspection: 1285260.015 - World View Enterprises Inc.

Inspection Information - Office: Arizona Phoenix Sfty

Nr: 1285260.015  Report ID: 0950411  Open Date: 12/28/2017

World View Enterprises Inc.
1805 E. Aerospace Parkway
Tucson, AZ 85756

SIC:
NAICS: 927110/Space Research and Technology
Mailing: 1805 E Aerospace Parkway, Tucson, AZ 85756

Inspection Type: Referral
Scope: Partial
Ownership: Private
Safety/Health: Health

Advanced Notice: N
Close Conference: 01/04/2018
Close Case: 01/04/2018

Related Activity: Type ID
Referral 1296112

Safety Health

Yes

Case Status: CLOSED
CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFER NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(ies).

PRODUCER
Shaw Moses Mendelhall & Associates Ins. Agency
License #0D4511
625 Fair Oaks, Suite 158
South Pasadena CA 91030

CONTACT NAME: Lisa Anderson
PHONE (AC No. Ext): (626) 799-7813
FAX: (AC No. Ext): (626) 799-8784
E-MAIL: 
INSURER(A) AFFORDING COVERAGE: NAIC #
INSURED
World View Enterprises
1805 E. Aerospace Parkway
Tuscon AZ 85756

COVERAGE NUMBER: 2017-2018
REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

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DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required): Pima County is added as Additional Insured. Insurance is Primary and Non-Contributory with respect to all other viable sources.

**30 day notice of cancellation except 10 days for non-payment

CERTIFICATE HOLDER
Pima County
c/o Administrator
130 W. Congress
10th Floor
Tuscon, AZ 85701

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Lisa Anderson/LISA

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## EVIDENCE OF PROPERTY INSURANCE

**Agency**
Crest Insurance Group, LLC
5285 E Williams Cir. Ste 4500
Tucson, AZ 85711

**Phone**
(520) 881-5760

**Fax**
(520) 618-3649

**Email**
dleskovsky@crestins.com

**Code**
70WORL Vie1

**Company**
Travelers Insurance Companies
P. O. Box 59059
Knoxville TN 37950-9059

**Loan Number**
KTK-630-3K423933-IND-17

**Policy Number**

**Effective Date**
11/10/2017

**Expiration Date**
11/10/2018

**Location/Description**
1805 E. Aerospace Parkway - Tucson, AZ 85756 - Building 3 & spaceport

**Property Information**

The policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this evidence of property insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies. Limits shown may have been reduced by paid claims.

### Coverage Information

<table>
<thead>
<tr>
<th>Coverage / Perils / Forms</th>
<th>Amount of Insurance</th>
<th>Deductible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building 3 - Replacement Cost - Agreed Value - Coinsurance 100%</td>
<td>$12,200,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Spaceport - Replacement Cost - Agreed Value - Coinsurance 100%</td>
<td>$2,200,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Business Personal Property</td>
<td>$3,000,000</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

### Remarks (Including Special Conditions)

Additional insured: Pima County c/o Pima County Administrator
RE: 1805 E. Aerospace Parkway, Tucson, AZ 85756
30 day notice of cancellation
Coverage is Primary & Non-Contributory, and Waiver of Subrogation applies. This form is subject to all policy forms, terms, endorsements, conditions, definitions, & exclusions.

### Cancellation

Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

### Additional Interest

<table>
<thead>
<tr>
<th>Name and Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pima County c/o Pima County Administrator 130 W. Congress, 10th Floor Tucson AZ 85701</td>
</tr>
</tbody>
</table>

Authorized Representative

Cody Ritchie

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