

# AGENDA

# 4:30 P.M.

## CITY OF SEDONA, CITY COUNCIL MEETING

## TUESDAY, DECEMBER 11, 2018

### NOTES:

- Public Forum:  
Comments are generally limited to **3 minutes**.
- Consent Items:  
Items listed under Consent Items have been distributed to Council Members in advance for study and will be enacted by one motion. Any member of the Council, staff or the public may remove an item from the Consent Items for discussion. Items removed from the Consent Items may be acted upon before proceeding to the next agenda item.
- Meeting room is wheelchair accessible. American Disabilities Act (ADA) accommodations are available upon request. Please phone 928-282-3113 at least two (2) business days in advance.
- City Council Meeting Agenda Packets are available on the City's website at:

[www.SedonaAZ.gov](http://www.SedonaAZ.gov)

### GUIDELINES FOR PUBLIC COMMENT

#### PURPOSE:

- To allow the public to provide input to the City Council on a particular subject scheduled on the agenda.
- This is not a question/answer session.

#### PROCEDURES:

- Fill out a "Comment Card" and deliver it to the City Clerk.
- When recognized, use the podium/microphone.
- State your:
  1. Name and
  2. City of Residence
- Limit comments to **3 MINUTES**.
- Submit written comments to the City Clerk.

### 1. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE/ROLL CALL

### 2. CITY'S VISION/MOMENT OF ART

### 3. CONSENT ITEMS - APPROVE

LINK TO DOCUMENT = 

- a. Minutes - November 26, 2018 City Council Special Meeting. 
- b. Minutes - November 27, 2018 City Council Special Meeting. 
- c. Minutes - November 27, 2018 City Council Regular Meeting. 
- d. Minutes - November 28, 2018 City Council Special Meeting. 
- e. AB 2416 Approval of a resolution authorizing the execution of an Intergovernmental Agreement (IGA) between the City of Sedona and the Coconino County Flood Control District (CCFCD) for the distribution of approximately \$400,000 in drainage funds to be used for the Juniper Hills Area Drainage Improvements Project. 
- f. AB 2450 Approval of a 5-year agreement with Xerox for the lease of 11 multifunction copiers. 
- g. AB 2454 Approval of appointment of Joan Dwyer as Magistrate Pro Tem for the Sedona Municipal Court. 

### 4. APPOINTMENTS - None.

### 5. SUMMARY OF CURRENT EVENTS BY MAYOR/COUNCILORS/CITY MANAGER

### 6. PUBLIC FORUM

(This is the time for the public to comment on matters not listed on the agenda. The City Council may not discuss items that are not specifically identified on the agenda. Therefore, pursuant to A.R.S. § 38-431.01(H), action taken as a result of public comment will be limited to directing staff to study the matter, responding to any criticism, or scheduling the matter for further consideration and decision at a later date.)

### 7. PROCLAMATIONS, RECOGNITIONS & AWARDS - None

### 8. REGULAR BUSINESS

- a. AB 2378 **Discussion/possible direction** regarding the Sedona In Motion transportation program. 
- b. AB 2449 **Discussion/possible direction** regarding recommendations made by the City Council Small Grants Review Subcommittee on possible changes to the criteria and process used to make awards under the City's Small Grants Program. 
- c. AB 2432 **Discussion/possible action** regarding the approval of certain contract documents between the city of Sedona and MidState Energy LLC, and between the city of Sedona and National Bank of Arizona, for a guaranteed energy cost savings contract providing for energy efficient measures and equipment, and lease/purchase thereof, in accordance with A.R.S. § 34-105, and in an amount not to exceed \$371,998. 
- d. AB 2453 **Discussion/possible direction** regarding a proposed two-day Council retreat agenda. 
- e. **Reports/discussion** regarding Council assignments.

**CITY COUNCIL CHAMBERS**  
**102 ROADRUNNER DRIVE, SEDONA, AZ**

The mission of the City of Sedona government is to provide exemplary municipal services that are consistent with our values, history, culture and unique beauty.

## Page 2, City Council Meeting Agenda Continued

- f. Discussion/possible action regarding future meeting/agenda items.

### 9. EXECUTIVE SESSION

If an Executive Session is necessary, it will be held in the Vultee Conference Room at 106 Roadrunner Drive. Upon a public majority vote of the members constituting a quorum, the Council may hold an Executive Session that is not open to the public for the following purposes:

- a. To consult with legal counsel for advice on matters listed on this agenda per A.R.S. § 38-431.03(A)(3).
- b. Return to open session. Discussion/possible action on executive session items.

### 10. ADJOURNMENT

Posted: \_\_\_\_\_

By: \_\_\_\_\_

Susan L. Irvine, CMC  
City Clerk

Note: Pursuant to A.R.S. § 38-431.02 notice is hereby given to the members of the City Council and to the general public that the Council will hold the above open meeting. Members of the City Council will attend either in person or by telephone, video, or internet communications. The Council may vote to go into executive session on any agenda item, pursuant to A.R.S. § 38-431.03(A)(3) and (4) for discussion and consultation for legal advice with the City Attorney. Because various other commissions, committees and/or boards may speak at Council meetings, notice is also given that four or more members of these other City commissions, boards, or committees may be in attendance.

A copy of the packet with material relating to the agenda items is typically available for review by the public in the Clerk's office after 1:00 p.m. the Thursday prior to the Council meeting and on the City's website at [www.SedonaAZ.gov](http://www.SedonaAZ.gov). The Council Chambers is accessible to people with disabilities, in compliance with the Federal 504 and ADA laws. Those with needs for special typeface print, may request these at the Clerk's Office. All requests should be made **forty-eight hours** prior to the meeting.

CITY COUNCIL CHAMBERS  
102 ROADRUNNER DRIVE, SEDONA, AZ

**Action Minutes  
Special City Council Meeting  
Vultee Conference Room, Sedona City Hall,  
106 Roadrunner Drive, Sedona, Arizona  
Monday, November 26, 2018, 10:00 a.m.**

**1. Call to Order/Pledge of Allegiance/Moment of Silence**

Mayor Moriarty called the meeting to order at 10:00 a.m.

**2. Roll Call**

**Council Present:** Mayor Sandy Moriarty, Vice Mayor John Martinez, Councilor John Currivan, Councilor Scott Jablow, Councilor Tom Lamkin, Councilor Jon Thompson, Councilor Jessica Williamson.

**Staff in attendance:** City Manager Justin Clifton, Assistant City Manager/Community Development Director Karen Osburn, City Attorney Robert Pickels, Jr., City Clerk Susan Irvine.

**3. Special Business**

**a. AB 2447 Discussion/possible action regarding a Resolution approving the canvass of the City's General Election held on November 6, 2018.**

Presentation by Susan Irvine who read the election results into the record.

Questions from Council.

**Motion: Councilor Lamkin moved to approve Resolution 2018-36 a resolution of the Mayor and Council of the City of Sedona, Arizona declaring and adopting the results of the General Election held on November 6, 2018. Seconded by Councilor Jablow. Vote: Motion carried unanimously with seven (7) in favor (Moriarty, Martinez, Currivan, Jablow, Lamkin, Thompson, and Williamson) and zero (0) opposed.**

**4. Adjournment**

Mayor Moriarty adjourned the meeting at 10:04 a.m.

**I certify that the above are the true and correct actions of the Special City Council Meeting held on November 26, 2018.**

\_\_\_\_\_  
Susan L. Irvine, CMC, City Clerk

\_\_\_\_\_  
Date

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**Action Minutes**  
**Special City Council Meeting - Executive Session**  
**Vultee Conference Room, Sedona City Hall,**  
**106 Roadrunner Drive, Sedona, Arizona**  
**Tuesday, November 27, 2018, 3:30 p.m.**

**1. Call to Order**

Mayor Moriarty called the meeting to order at 3:30 p.m.

**2. Roll Call**

**Council Present:** Mayor Sandy Moriarty, Vice Mayor John Martinez, Councilor John Currivan, Councilor Scott Jablow, Councilor Tom Lamkin, Councilor Jon Thompson, Councilor Jessica Williamson.

**Staff in attendance:** City Manager Justin Clifton, Assistant City Manager/Community Development Director Karen Osburn, City Attorney Robert Pickels, Jr., City Clerk Susan Irvine.

**3. Executive Session**

**Motion: Vice Mayor Martinez moved to enter into Executive Session at 3:31 p.m. Seconded by Councilor Jablow. Vote: Motion carried unanimously with seven (7) in favor (Moriarty, Martinez, Currivan, Jablow, Lamkin, Thompson, and Williamson) and zero (0) opposed.**

**Upon a public majority vote of the members constituting a quorum, the Council may hold an Executive Session that is not open to the public for the following purposes:**

- a. **Discussion/consultation with the City Attorney to consider the City's position and instruct the City Attorney regarding litigation in the matter of Son Silver West vs. City of Sedona, Case No. CV 2016-00306. This matter is brought in executive session pursuant to A.R.S. § 38-431.03(A)(4).**
- b. **Return to open session. Discussion/possible action on executive session items.**

**4. Adjournment**

**Mayor Moriarty adjourned the meeting at 4:16 p.m.**

**I certify that the above are the true and correct actions of the Special City Council Meeting held on November 27, 2018.**

\_\_\_\_\_  
Susan L. Irvine, CMC, City Clerk

\_\_\_\_\_  
Date

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**Action Minutes**  
**Regular City Council Meeting**  
**City Council Chambers, Sedona City Hall,**  
**102 Roadrunner Drive, Sedona, Arizona**  
**Tuesday, November 27, 2018, 4:30 p.m.**

**1. Call to Order/Pledge of Allegiance/Moment of Silence/Roll Call**

Mayor Moriarty called the meeting to order at 4:30 p.m.

**Roll Call:** Mayor Sandy Moriarty, Vice Mayor John Martinez, Councilor John Currivan, Councilor Scott Jablow, Councilor Tom Lamkin, Councilor Jon Thompson, Councilor Jessica Williamson.

**Staff Present:** City Manager Justin Clifton, Assistant City Manager/Community Development Director Karen Osburn, City Attorney Robert Pickels, Jr., Associate Engineer James Crowley, Assistant Engineer Ken Dutcher, Director of Financial Services Cherie Wright, Parks & Recreation Manager Rachel Murdoch, Parks & Recreation Administrative Assistant Aaron Day, Lieutenant Stephanie Foley, Sergeant Laura Leon, City Clerk Susan Irvine.

**2. City's Vision**

A video of the City's vision was played.

**3. Consent Items**

- a. **Minutes - November 13, 2018 City Council Special Meeting.**
- b. **Minutes - November 13, 2018 City Council Regular Meeting.**
- c. **Minutes - November 14, 2018 City Council Special Meeting.**

**Motion: Councilor Thompson moved to approve consent items 3a, 3b, and 3c. Seconded by Vice Mayor Martinez. Vote: Motion carried unanimously with seven (7) in favor (Moriarty, Martinez, Currivan, Jablow, Lamkin, Thompson, and Williamson) and zero (0) opposed.**

**4. Summary of Current Events by Mayor/Councilors/City Manager**

Justin Clifton introduced the following new City employees and welcomed them to the team: City Manager Administrative Assistant Teresah Arthur (not in attendance), Sergeant Laura Leon, and Assistant Engineer Ken Dutcher. Vice Mayor Martinez stated that the City will host a 30<sup>th</sup> Anniversary Celebration of the incorporation of Sedona on December 11<sup>th</sup> at 3:30 p.m. Anyone who has been here for 30 years is invited to speak and should to RSVP to the Parks & Recreation Director. Councilor Jablow advised that Breakfast with Santa is on Saturday from 8:00 to 10:00 a.m.

**5. Proclamations, Recognitions, and Awards - None.**

**6. Public Forum/Recognition of Outgoing Council Members**

David Tracy, Sedona, thanked the re-elected and outgoing Councilors for their hard work and cooperation.

Mayor Moriarty expressed her appreciation in working with Councilor Thompson and Councilor Lamkin. She presented them with glass art pieces to thank them for their service to the City.

Councilor Thompson stated that his experience on Council was rewarding and worth doing. He intends to continue to serve on the Citizen Engagement Committees in areas where he feels he can contribute. He thanked the terrific staff for all their hard work in making his job easy.

Councilor Lamkin thanked the Council for being welcoming and for helping to train him. He encouraged the citizens of Sedona to continue to be engaged as the City is only as good as their citizens.

Vice Mayor Martinez expressed his enjoyment in working with Councilor Thompson and Councilor Lamkin and stated that he considers them both to be friends.

Councilor Jablow thanked Councilor Thompson and Councilor Lamkin for everything they taught him.

Councilor Williamson stated that both Councilor Thompson and Councilor Lamkin are good people who want to do what is right without personal agendas. She expressed her appreciation for their good hearts, giving attitudes, and intelligence.

Councilor Currivan stated that Councilor Thompson's dedication and passion is something to behold. He recognized Councilor Lamkin for being lovable and for his expert analytical skills.

Karen Strauch, Sedona, thanked Councilor Thompson and Councilor Lamkin for the time they dedicated serving on City Council. They are prime examples of those with the ability to make sound, informed decisions. Ernie Strauch, Sedona, echoed those sentiments.

## **7. Swearing in of Newly Elected Council Members by Magistrate Judge Michael Goimarac**

Susan Irvine gave the elected officials their certificates of election.

Judge Goimarac administered the oath of office to Mayor Sandra J. "Sandy" Moriarty.

Judge Goimarac administered the oath of office to Councilors Bill Chisholm, Janice Hudson, Scott Jablow, and Jessica Williamson.

## **8. Roll Call**

**Roll Call:** Mayor Sandy Moriarty, Vice Mayor John Martinez, Councilor Bill Chisholm, Councilor John Currivan, Councilor Janice Hudson, Councilor Scott Jablow, Councilor Jessica Williamson.

## **9. Appointments**

- a. AB 2444 Discussion/possible action regarding appointment of a Vice Mayor.**

**Motion: Mayor Moriarty moved to appoint John Martinez to fill the office of Vice Mayor. Seconded by Councilor Currivan. Vote: Motion carried unanimously with seven (7) in favor (Moriarty, Martinez, Chisholm, Currivan, Hudson, Jablow, and Williamson) and zero (0) opposed.**

## **10. Regular Business**

- a. **AB 2441 Public hearing/discussion/possible action regarding the adoption of a resolution and ordinance updating the City of Sedona's Consolidated Fee Schedule.**

Presentation by Justin Clifton, Susan Irvine, Cherie Wright, Rachel Murdoch, and Aaron Day.

Questions from Council.

Opened to the public at 5:22 p.m.

The following spoke regarding this item: John Kilis, Sedona.

Opened and closed the public hearing and brought back to Council at 5:26 p.m.

Further questions and comments from Council.

**Motion: Councilor Williamson moved to approve Resolution No. 2018-37 creating a public record entitled "2018 Amendments to the Sedona Consolidated Fee Schedule". Seconded by Councilor Jablow. Vote: Motion carried unanimously with seven (7) in favor (Moriarty, Martinez, Chisholm, Currivan, Hudson, Jablow, and Williamson) and zero (0) opposed.**

**Motion: After 1<sup>st</sup> reading, Councilor Williamson moved to approve Ordinance No. 2018-13, adopting proposed changes to the Consolidated Fee Schedule. Seconded by Councilor Jablow. Vote: Motion carried unanimously with seven (7) in favor (Moriarty, Martinez, Chisholm, Currivan, Hudson, Jablow, and Williamson) and zero (0) opposed.**

- b. **AB 2443 Discussion/possible action regarding an ordinance amending the Sedona City Code Section 5.05.010 (Business Licensing Definitions) to clarify business license requirements on rental of real property.**

Presentation by Cherie Wright and Robert Pickels, Jr.

Questions and comments from Council.

**Motion: After 1<sup>st</sup> reading, Councilor Williamson moved to approve Ordinance No. 2018-14 amending the Sedona City Code Section 5.05.010 (Business Licensing Definitions). Seconded by Councilor Currivan. Vote: Motion carried unanimously with seven (7) in favor (Moriarty, Martinez, Chisholm, Currivan, Hudson, Jablow, and Williamson) and zero (0) opposed.**

- c. **Reports/discussion regarding Council assignments - None.**

- d. **Discussion/possible action regarding future meeting/agenda items.**

Mayor Moriarty advised that there is a work session tomorrow at 3:00 p.m. Councilor Chisholm requested an agenda item to discuss prioritization of SIM projects. Justin Clifton advised that this can take place during the item scheduled for the December 11<sup>th</sup> meeting. Councilor Chisholm also asked for an item related to affordable housing. Justin Clifton stated that this would be a good topic for the January Council retreats.

## **11. Executive Session**

**Upon a public majority vote of the members constituting a quorum, the Council may hold an Executive Session that is not open to the public for the following purposes:**

- a. To consult with legal counsel for advice on matters listed on this agenda per A.R.S. § 38-431.03(A)(3).
- b. Return to open session. Discussion/possible action on executive session items.

No Executive Session was held.

**10. Adjournment**

Mayor Moriarty adjourned the meeting at 6:01 p.m. without objection.

**I certify that the above are the true and correct actions of the Regular City Council Meeting held on November 27, 2018.**

\_\_\_\_\_  
Susan L. Irvine, CMC, City Clerk

\_\_\_\_\_  
Date

**Action Minutes  
Special City Council Meeting  
City Council Chambers, Sedona City Hall,  
102 Roadrunner Drive, Sedona, Arizona  
Wednesday, November 28, 2018, 3:00 p.m.**

**1. Call to Order/Pledge of Allegiance/Moment of Silence**

Mayor Moriarty called the meeting to order at 3:00 p.m.

**Roll Call:** Mayor Sandy Moriarty, Councilor Bill Chisholm, Councilor John Currivan, Councilor Scott Jablow, Councilor Jessica Williamson. Vice Mayor John Martinez and Councilor Janice Hudson were absent and excused.

**Staff Present:** City Manager Justin Clifton, Assistant City Manager/Community Development Director Karen Osburn, Assistant City Attorney Lisa Weiler-Parsons, City Clerk Susan Irvine.

**2. Special Business**

**a. AB 2445 Discussion/possible direction regarding the draft Sustainable Tourism Plan including possible direction for follow up meetings relating to future workplans and budget.**

Presentation by Justin Clifton, Sedona Chamber of Commerce and Tourism Bureau CEO/President Jennifer Wesselhoff, Nichols Tourism Group President Mitch Nichols, and ASU Center for Sustainable Tourism Director Christine Vogt.

Questions from Council.

Break at 5:23 p.m. Reconvened at 5:34 p.m.

Opened to the public at 5:34 p.m.

The following spoke regarding this item: Kurt Gehlbach, Sedona.

Brought back to Council at 5:35 p.m.

Additional questions and comments from Council.

**By majority consensus Council asked that the advisory committee look at suggested areas where wording changes might be needed including the Mission Statement and Overarching Themes.**

**b. Discussion/possible action on future meeting/agenda items - None.**

**3. Executive Session**

Upon a public majority vote of the members constituting a quorum, the Council may hold an Executive Session that is not open to the public for the following purposes:

- a. To consult with legal counsel for advice on matters listed on this agenda per A.R.S. § 38-431.03(A)(3).**
- b. Return to open session. Discussion/possible action on executive session items.**

No Executive Session was held.

**4. Adjournment**

Mayor Moriarty adjourned the meeting at 6:07 p.m. without objection.

**I certify that the above are the true and correct actions of the Special City Council Meeting held on November 28, 2018.**

\_\_\_\_\_  
Susan L. Irvine, CMC, City Clerk

\_\_\_\_\_  
Date



**CITY COUNCIL  
AGENDA BILL**

**AB 2416  
December 11, 2018  
Consent Items**

**Agenda Item: 3e**  
**Proposed Action & Subject:** Approval of a resolution authorizing the execution of an Intergovernmental Agreement (IGA) between the City of Sedona and the Coconino County Flood Control District (CCFCD) for the distribution of approximately \$400,000 in drainage funds to be used for the Juniper Hills Area Drainage Improvements Project.

<b>Department</b>	Public Works
<b>Time to Present</b>	N/A
<b>Total Time for Item</b>	
<b>Other Council Meetings</b>	July 24, 2018 (Job Order Contract - Drainage)
<b>Exhibits:</b>	A. Proposed IGA B. Proposed Resolution authorizing the new IGA C. Map of the Juniper Hills Area Drainage Project

City Attorney Approval	Reviewed 12/4/18 RLP	<b>Expenditure Required</b>
		\$ 0
City Manager's Recommendation	Approve a resolution authorizing an IGA for cost sharing the Juniper Hills Drainage Improvements Project.	<b>Amount Budgeted</b>
		\$ 0
		Account No. (Description) Project costs already approved – this is for approval of funding source.
		Finance Approval <input checked="" type="checkbox"/>

**SUMMARY STATEMENT**

The City continues to make flood control improvements a priority. A portion of tax money collected by the Coconino County Flood Control District (CCFCD) and allocated for flood control is contributed to the City for flood control related projects. The City successfully leverages County flood control funds to complete flood control improvement projects. During FY 2018-2019, the County funds will cover approximately 47 percent of the Juniper Hills Area Drainage Improvements Project.

**Background:** For several years, the CCFCD has provided the City funds for flood control studies and projects located in the Coconino County portion of the City on an annual basis. The CCFCD has historically given the City approximately \$350,000 to \$400,000 per year to be used on flood control projects as determined by the City; however, as strongly advised by their legal counsel, they will be using an IGA for our current fiscal year. Future years will most

likely be a combination of a competitive grant process, along with IGAs for smaller drainage projects.

Consideration:

- For the current year, the amount of funding contributed by the CCFCD is based on a specific drainage project requested for funding by the City. For this year, and in future years, Coconino County will be distributing funding at the discretion of the County Board of Supervisors.
- The CCFCD keeps a portion of the taxes collected for floodplain management activities, overhead, general countywide studies, District projects, etc.
- For the City to accept the funds and agree to the terms and conditions for their use, an Intergovernmental Agreement (IGA) is needed.
- The IGA details each party's responsibilities related to the use of the funding, including the amount of the funding, fiscal year restrictions for its use, and the necessity for projects to be located within Coconino County for flood mitigation meeting FEMA regulations.
- The resolution and IGA for City Council consideration provides the mechanism for the City to be reimbursed approximately \$400,000 by the CCFCD for the Juniper Hills Area Drainage Improvements Project construction in FY 2018-2019.

FY 2018-2019 Project:

- Due to previous flooding events, Juniper Lane is no longer traversable with a standard passenger vehicle. This street is one of the access routes to the City's wastewater lift station on New Castle Lane.
- The Juniper Hills Area Drainage Improvements Project is for the installation of 120' of 36" drainage culvert and 950' of 42" drainage culvert on Juniper Lane and south of Juniper Lane to an outlet near Oak Creek as shown on Exhibit C for this Agenda Bill. There will also be multiple surface inlets to the culverts, and the street section will be reconstructed.
- The City will have drainage easements and will maintain the drainage system, but the street will remain private and will not be maintained by the City in the future.
- The design for the project is currently 100% complete, and construction is expected to begin in January 2019.
- The construction is budgeted in FY 2018-2019 in the amount of \$850,000. With the use of \$400,000 in drainage funds from CCFCD, the City's expense will be approximately \$450,000.

The Coconino County Board of Supervisors approved this IGA at their December 4, 2018 meeting and is now ready to be approved by the Sedona City Council.

**Community Plan Compliant: Yes - No - Not Applicable**

Chapter 5 of the Community Plan addresses the Environment. One of the five major goals of this chapter is to reduce the impacts of flooding and erosion on the community and environment. Key issues cited here include addressing the negative impacts of flooding which has resulted in property damage and other impacts, including negative impacts on habitat and the water quality of Oak Creek. Page 76 of the Community Plan provides a dedicated discussion of the importance of stormwater management and the prioritization of drainage improvements.

**Board/Commission Recommendation: Applicable - Not Applicable**

**Alternative(s):** If the funds are not received, it will be necessary to use additional General Fund dollars for construction of the project, which has the potential to delay other CIP projects.

**MOTION**

**I move to:** approve Resolution No. 2018-\_\_\_\_ authorizing the execution of an Intergovernmental Agreement between the City of Sedona and the Coconino County Flood Control District for the distribution of approximately \$400,000 in drainage funds to be used for the Juniper Hills Area Drainage Improvements Project.

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INTERGOVERNMENTAL AGREEMENT  
BETWEEN  
THE COCONINO COUNTY FLOOD CONTROL DISTRICT AND THE CITY OF SEDONA  
FOR THE FISCAL YEAR 2018-2019 FINANCIAL CONTRIBUTION  
FROM THE DISTRICT TO THE CITY FOR FLOOD CONTROL  
IMPROVEMENTS

This Intergovernmental Agreement (“Agreement”) is entered into this \_\_\_\_ day of \_\_\_\_\_, 2019 (the “effective date”) between the Coconino County Flood Control District, a political subdivision of the State of Arizona, (the “District”) and the City of Sedona, Arizona, a municipal corporation of the State of Arizona (the “City”). The District and the City may each be referred to in this Agreement individually as a Party, and collectively as the Parties.

RECITALS

WHEREAS:

- A. The DISTRICT is a special taxing district legally created in the State of Arizona and organized by Coconino County to include and govern its jurisdiction.
- B. The DISTRICT administers the Federal Emergency Management Agency (“FEMA”) Regulations under the National Flood Insurance Program.
- C. The Coconino County Board of Supervisors is the Board of Directors of the DISTRICT.
- D. A portion of the CITY lies within the legal boundaries of the DISTRICT.
- E. The DISTRICT, the CITY, and the County are separate and distinct political subdivisions, but each can provide for the benefit of the other(s), for the benefit of public health, safety, and welfare, and other public purposes.
- F. The DISTRICT and the CITY have authority to enter into Intergovernmental Agreements pursuant to Arizona Revised Statutes (“A.R.S.”) §§ 11-952, 48-3603, and 9-240, and CITY’s Code.
- G. Among other things, the DISTRICT receives tax proceeds as general funding for the planning, construction, and maintenance of flood control improvements.
- H. The budgeting process for the DISTRICT has set aside funds for the purpose of funding this specific project within the City of Sedona.
- I. The DISTRICT has approved and budgeted Funds to provide funding assistance for flood mitigation work and is authorized to expend such Funds for flood control projects (including storm water control) to political subdivisions for projects so long as the projects are flood

or drainage related, cost-effective, a benefit to the County, the DISTRICT, and the political subdivision and are in accordance with FEMA regulations.

- J. The CITY has experienced storm water control and flooding problems for a number of years in various locations and seeks to mitigate such problems to increase safety and protect public and private property and persons within the CITY.
- K. The CITY seeks to improve its storm water control, make drainage improvements, and/or mitigate flooding problems by constructing the Juniper Hills Area Drainage Improvements Project (hereinafter the "Project").
- L. The CITY desires to receive DISTRICT Funds for the 2019 fiscal year to be used for its Project.
- M. The DISTRICT has budgeted Funds to support the Project in an amount not to exceed Four Hundred Two Thousand, Two Hundred Seventy-Four Dollars (\$402,274) for fiscal year 2019, which begins on July 1, 2018.

## AGREEMENTS

NOW THEREFORE, for good and valuable consideration, including consideration of the mutual promises, terms, and conditions hereinafter set forth, including the mutual promises and obligations to be performed by the Parties hereto, IT IS AGREED BETWEEN THE CITY AND THE DISTRICT AS FOLLOWS:

### I. PURPOSE

The purpose of this Agreement is to authorize the DISTRICT to pay and contribute to the CITY Funds in support of the CITY's Project. Such funding for fiscal year 2019 shall not exceed Four Hundred Two Thousand, Two Hundred Seventy-Four Dollars (\$402,274).

### II. COMMENCEMENT, DURATION, AND TERMINATION

The effective date is as set forth on page one (1) of this Agreement. Performance under this Agreement shall commence following the effective date and shall terminate upon the earliest of:

- A. The completion of the Project as determined by the CITY;
- B. The exhaustion of the Funds allocated to the CITY for the Project; or
- C. The mutual agreement of the Parties.

### III. RESPONSIBILITIES OF PARTIES

A. The CITY shall:

- 1. Be solely responsible for the design, engineering, bidding, right-of-way acquisition, supervision, construction, inspection, administration, and project management of the Project and for contracting directly for all Project work.
- 2. Provide the DISTRICT with final plans for review.
- 3. Provide the DISTRICT with the authority to conduct independent construction

inspections.

4. Provide the DISTRICT with a copy of the final as-built plans when construction is deemed completed by the CITY.
5. Use the Funds for the Project prior to June 30, 2020.
6. Use the Funds exclusively for costs associated with the Project described above.
7. Request Funds from the DISTRICT on or before June 30, 2020 (for work completed in fiscal years 2019 and 2020).
8. Be responsible for the proper disbursement of the Funds provided by the DISTRICT.
9. Be responsible for maintaining the Project during construction and the resulting improvements in perpetuity.

B. The DISTRICT shall:

1. Make Funds available to the CITY for the Project as approved by the Board of Directors.
2. Provide funding as available and appropriate upon proper request(s) by the CITY.
3. Coordinate with the CITY to conduct construction inspections.

C. The DISTRICT and CITY mutually agree:

1. That they recognize the Funds to be used by Parties pursuant to this Agreement are tax funds. The agreements herein for funding are based upon projected tax funds to be received. In the event the projected income is not received, there is the possibility that some or all of the Funds anticipated by this Agreement and set forth herein will not be available. All monetary obligations under this agreement shall be subject to annual budget approval of the respective governing bodies of the parties. A failure of either party's governing body to approve funding for payment of any obligation hereunder shall constitute grounds for termination of this agreement.
2. The Project is the sole responsibility of the CITY, and not of the DISTRICT or the County. All real property upon which the Project work will occur is within the CITY limits and not owned or under the control of the DISTRICT or County.

## VII. INDEMNIFICATION

The CITY agrees to defend, indemnify, and hold harmless the DISTRICT, its Board of Directors, the County, its Board of Supervisors, officers, employees, agents, or other representatives from any and all claims for damages or otherwise arising under this Agreement and from any act, omission, negligence, misconduct, or other fault of the City, its officers, employees, agents, or other representatives. This Indemnification provision shall survive the termination of this Agreement.

## VIII. OTHER PROVISIONS

- A. NOTICE. All notices or demands upon any party to this Agreement shall be in writing

and shall be delivered in person or sent by certified mail, return receipt requested, addressed as follows:

CITY OF SEDONA  
City Manager

102 Roadrunner Drive  
Sedona, AZ 86336

DISTRICT  
Coconino County Flood Control District  
Administrator  
5600 E Commerce Ave  
Flagstaff, AZ 86004

- B. ENTIRE AGREEMENT. This Agreement represents the entire understanding between the parties with respect to the subject matters herein, and may be amended, modified, or waived only by written instrument signed by both Parties.
- C. CONFLICT OF INTEREST. This contract is subject to the cancellation provisions of A.R.S. § 38-511.
- D. SEVERABILITY. In case one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained therein.
- E. NON-DISCRIMINATION. The Parties shall comply with Executive Order 2009-09, which mandates that all persons, regardless of race, color, religion, sex, age, national origin or political affiliation, shall have equal access to employment opportunities, and all other applicable State and Federal employment laws, rules and regulations, including the Americans with Disabilities Act. The Parties shall take affirmative action to ensure that applicants for employment and employees are not discriminated against due to race, creed, color, religion, sex, national origin or disability.
- F. EMPLOYMENT VERIFICATION. The Parties are required to comply with A.R.S. § 41-4401, and hereby warrants that they will, at all times during the term of this Agreement, comply with all federal immigration laws applicable to the employment of their respective employees, the requirements of A.R.S. § 41-4401, and with the e-verification requirements of A.R.S. § 23-214(A) (together the “state and federal immigration laws”). The Parties further agree to ensure that each subcontractor that performs any work under this Agreement likewise complies with the state and federal immigration laws. A breach of a warranty regarding compliance with the state and federal immigration laws shall be deemed a material breach of the Agreement and the party who breaches may be subject to penalties up to and including termination of the Agreement. The Parties retain the legal right to inspect the papers of any contractor or subcontract employee working under the terms of the Agreement to ensure that the other party is complying with the warranties regarding compliance with the state and federal immigration laws.
- G. LAWS. The Parties shall each be fully responsible for compliance with all statutes, ordinances, codes, regulations, rules, court decrees, or other laws (hereinafter “Laws”)



DETERMINATIONS OF COUNSEL  
FOR THE  
INTERGOVERNMENTAL AGREEMENT

BETWEEN  
THE COCONINO COUNTY FLOOD CONTROL DISTRICT AND THE CITY OF SEDONA  
FOR THE FISCAL YEARS OF 2019 AND 2020 FINANCIAL CONTRIBUTION  
FROM THE DISTRICT TO THE CITY FOR FLOOD CONTROL IMPROVEMENT

Pursuant to A.R.S. § 11-952, as amended, the foregoing Agreement has been submitted to the undersigned Attorney City of Sedona. The undersigned has determined that this Agreement is in proper form and is within the powers and authority granted under the laws of the State of Arizona and the City of Sedona.

\_\_\_\_\_  
City Attorney  
City of Sedona

Date

Pursuant to A.R.S. § 11-952, as amended, the foregoing Agreement has been submitted to the undersigned Attorney for the Coconino County Flood Control District, Flagstaff, Arizona. The undersigned has determined that this Agreement is in proper form and is within the powers and authority granted under the laws of the State of Arizona to the Coconino County Flood Control District.

\_\_\_\_\_  
Deputy County Attorney  
Flood Control District

Date

RESOLUTION NO. 2018-\_\_

**A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF SEDONA, ARIZONA, APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITY OF SEDONA AND THE COCONINO COUNTY FLOOD CONTROL DISTRICT FOR THE DISTRICT TO PROVIDE FUNDS TO THE CITY IN THE APPROXIMATE AMOUNT OF FOUR HUNDRED THOUSAND DOLLARS (\$400,000) TO BE USED BY THE CITY TO FUND THE JUNIPER HILLS AREA DRAINAGE IMPROVEMENTS PROJECT; PROVIDING AUTHORIZATION FOR THE MAYOR TO EXECUTE SAID AGREEMENT.**

WHEREAS, the City of Sedona ("City") and the Coconino County Flood Control District ("District") have reached an Intergovernmental Agreement concerning the distribution of a portion of *ad valorem* taxes paid by City residents for flood control projects, including storm water control; and

WHEREAS, the District is authorized to expend funds for flood control projects pursuant to A.R.S. § 48-3603(C)(7) and reimburse municipalities for such work, and has approved and budgeted such funds for the City in the approximate amount of \$400,000 for fiscal year 2018-2019 to be used by the City to fund the Juniper Hills Area Drainage Improvements Project within the Coconino County portion of the City; and

WHEREAS, the City is authorized by A.R.S. § 9-240(B)(5) to perform this work, and the District may enter into an appropriate intergovernmental agreement under A.R.S. § 48-3603(C)(9); and

WHEREAS, the City has reviewed the terms of the intergovernmental agreement and determined that it is in the proper form required by A.R.S. § 11-952;

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND THE COUNCIL OF THE CITY OF SEDONA, ARIZONA THAT:

The City of Sedona, through its Mayor and Council, hereby approves the Intergovernmental Agreement with the Coconino County Flood Control District to provide funds in the approximate amount of four hundred thousand dollars (\$400,000) for the Juniper Hills Area Drainage Improvements Project, and the Mayor is authorized to execute said Agreement on behalf of the City.

PASSED AND ADOPTED by the Mayor and Council of the City of Sedona, Arizona this 11<sup>th</sup> day of December, 2018.

\_\_\_\_\_  
Sandra J. Moriarty, Mayor

ATTEST:

\_\_\_\_\_  
Susan L. Irvine, CMC, City Clerk

APPROVED AS TO FORM:

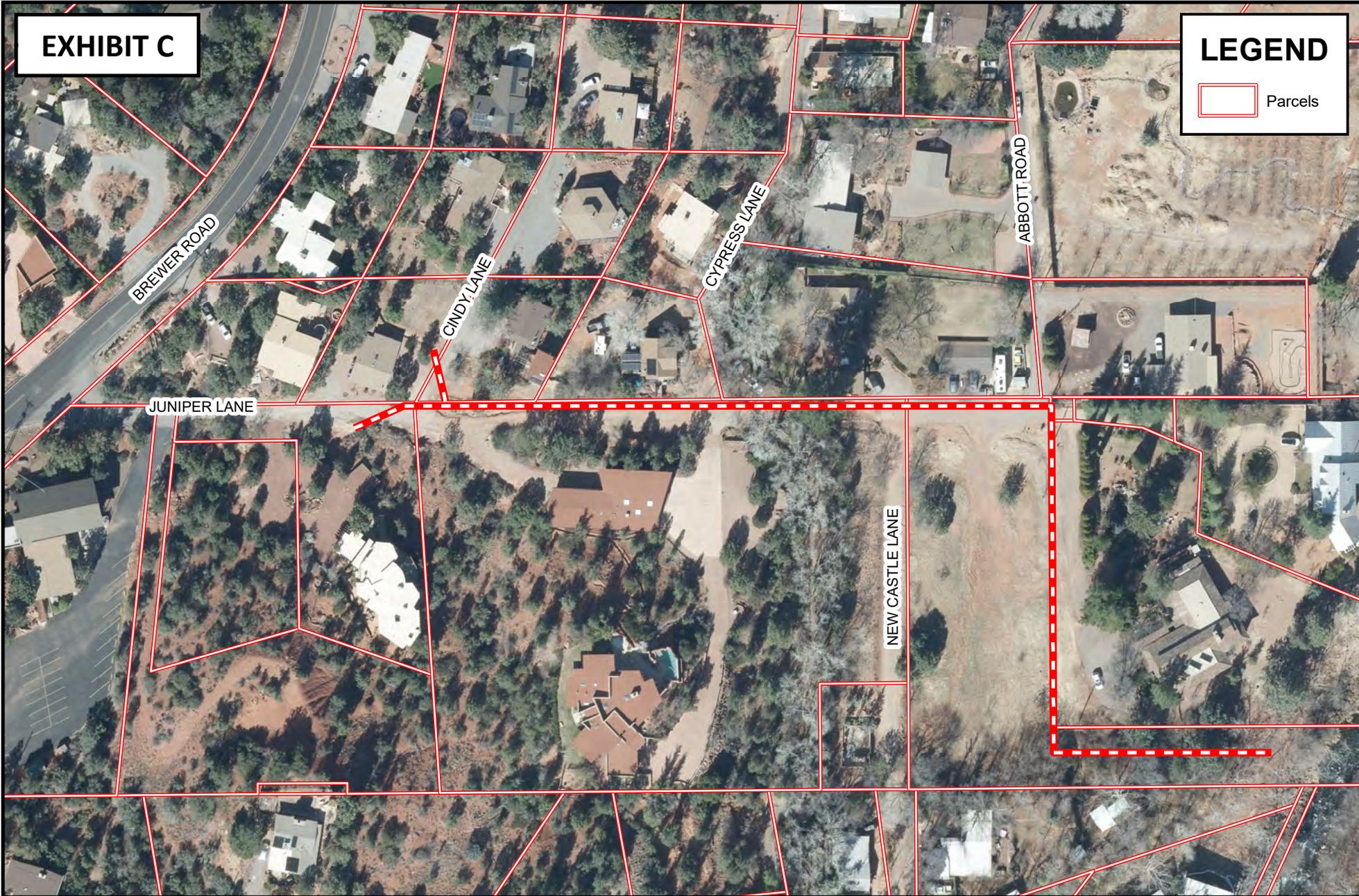
\_\_\_\_\_  
Robert L. Pickels, Jr., City Attorney

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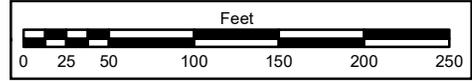
**EXHIBIT C**

**LEGEND**

 Parcels



**JUNIPER HILLS AREA  
DRAINAGE IMPROVEMENTS**



This map is designed to provide as-is information only. The data is not accurate to engineering or surveying standards. The City of Sedona is not liable or responsible for loss or damages rising from the data contained on this map.

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**CITY COUNCIL  
AGENDA BILL**

**AB 2450  
December 11, 2018  
Consent Items**

**Agenda Item:** 3f  
**Proposed Action & Subject:** Approval of a 5-year agreement with Xerox for the lease of 11 multifunction copiers.

<b>Department</b>	Information Technology
<b>Time to Present</b>	N/A
<b>Total Time for Item</b>	
<b>Other Council Meetings</b>	N/A
<b>Exhibits</b>	A. Xerox Lease Agreement B. New Lease Cost Analysis C. Current Lease Cost Analysis D. State Contract ADSPO18-00008023 Award Letter and Scope

City Attorney Approval	Reviewed 12/4/18 RLP	<b>Expenditure Required</b>
		\$ 156,400 (5-year estimated total - \$31,280 estimated annually)
City Manager's Recommendation	Approve a new 5-year lease agreement for 11 multifunction copiers.	<b>Amount Budgeted</b>
		\$ 39,000 in FY2019
		Account No. 60-5224-21-6920 (\$36,000)
		(Description) 59-5224-21-6920 (\$3,000)
		Finance Approval <input checked="" type="checkbox"/>

**SUMMARY STATEMENT**

**Background:** For the last 10 years, the City has leased copiers from Xerox under two 5-year lease agreements. The current agreement expires in February of 2019. The new lease agreement is for 11 new copiers and includes maintenance. The copiers are necessary to maintain the City's current work processes, providing print, copy, scanning, and fax services.

Costs include both a fixed rate lease and cost per print made in both black & white and color. A total of 547,009 prints were made over the past year. This number is lower than the average per year calculated since the beginning of the lease of 601,734 prints. This downward trend is expected to continue as technology advances and we rely more on electronic communications, and as prints become more obsolete. Therefore, cost estimates for prints are based off the past year's counts with a small 10% buffer to ensure there is sufficient budget in the event additional

prints are needed. If the number of prints stays flat or decreases, the additional budget will remain unspent, and savings will be realized at year's end.

Due to improvements in technology and contract negotiations between Xerox and the State of Arizona, the monthly costs of both the fixed rate lease and prints combined have reduced since the last contract. Currently the City budgets \$39,000 per year under the existing lease. The new lease budget would be reduced to \$31,280 per year. Over the 5-year lease agreement, the City will save approximately \$38,600.

	<b>Fixed Rate Lease Per Year</b>	<b>Print Cost Estimate Per Year</b>	<b>Totals</b>	<b>Totals with Print Multiplier (10% buffer)</b>
<b>Current Lease</b>	\$21,280.079	\$14,409.542	\$35,689.621	\$37,130.575
<b>New Lease</b>	\$18,989.765	\$11,172.715	\$30,162.480	\$31,279.751

All prices include taxes.

Print multiplier factors in 10% buffer on print counts, not the fixed rate lease.

Exhibit B is a cost analysis for the new lease. To compare like counts, Exhibit C shows the current lease using the same numbers as Exhibit B.

Exhibit D consists of the "Request for Proposal Solicitation No. ADSPO18-00008023" and the Arizona Department of Administration State Procurement Office's award of contract letter. The City of Sedona may use this state contract to take advantage of the economies of scale achieved through bulk purchasing and obtain more competitive pricing than the City could achieve on its own.

**Community Plan Consistent:**  Yes -  No -  Not Applicable

**Board/Commission Recommendation:**  Applicable -  Not Applicable

**Alternative(s):**

- A. Enter into a 24-month lease at more than double the new lease price.  
Not recommended as this option would be considerably more expensive.
- B. Evaluate other vendors, such as Konica, Ricoh, or Canon.  
Not recommended as costs are controlled by the Arizona Purchasing Contract and the City has gained significant working knowledge of using Xerox equipment and services.  
Selecting another vendor would require re-training and reconfiguration.

**MOTION**

**I move to:** approve a 5-year agreement with Xerox for the lease of 11 multifunction copiers.

Presented to SEDONA, CITY OF

By Stephani Ringenberg

On 11/26/2018

072795800 References Arizona State Contract ADSPO18-00008023

Negotiated Contract : 072795800

Solution				
Item	Product Description	Agreement Information	Trade Information	Requested Install Date
1.	<b>C8055H (XEROX C8055H)</b> - 1 Line Fax - Booklet Maker Unit - Office Finisher Lx - Convenience Stapler - Wireless Print Kit - Customer Ed - Analyst Services	Lease Term: 60 months Purchase Option: FMV	- Xerox 7830P S/N MX1195972 Trade-In as of Payment 56	11/9/2018
2.	<b>C8055H (XEROX C8055H)</b> - 1 Line Fax - Booklet Maker Unit - Office Finisher Lx - Convenience Stapler - Wireless Print Kit - Customer Ed - Analyst Services	Lease Term: 60 months Purchase Option: FMV	- Xerox 7855PT S/N MX4342305 Trade-In as of Payment 56	11/6/2018
3.	<b>C8055H (XEROX C8055H)</b> - 1 Line Fax - Booklet Maker Unit - Office Finisher Lx - Convenience Stapler - Wireless Print Kit - Customer Ed - Analyst Services	Lease Term: 60 months Purchase Option: FMV	- Xerox 7855PT S/N MX4342321 Trade-In as of Payment 56	11/6/2018

All information in this proposal is considered confidential and is for the sole use of SEDONA, CITY OF. If you would like to acquire the solution described in this proposal, we would be happy to offer a Xerox order agreement. Pricing is subject to credit approval and is valid until 12/26/2018.

For any questions, please contact me at (928)774-5828



**Solution (Cont'd)**

Item	Product Description	Agreement Information	Trade Information	Requested Install Date
4. C8055H (XEROX C8055H)	<ul style="list-style-type: none"> <li>- 1 Line Fax</li> <li>- Booklet Maker Unit</li> <li>- Office Finisher Lx</li> <li>- Convenience Stapler</li> <li>- Wireless Print Kit</li> <li>- Customer Ed</li> <li>- Analyst Services</li> </ul>	Lease Term: 60 months Purchase Option: FMV	- Xerox 7855PT S/N MX4342322 Trade-In as of Payment 56	11/6/2018
5. C8055H (XEROX C8055H)	<ul style="list-style-type: none"> <li>- 1 Line Fax</li> <li>- Booklet Maker Unit</li> <li>- Office Finisher Lx</li> <li>- Convenience Stapler</li> <li>- Wireless Print Kit</li> <li>- Customer Ed</li> <li>- Analyst Services</li> </ul>	Lease Term: 60 months Purchase Option: FMV	- Xerox 7855PT S/N MX4342332 Trade-In as of Payment 56	11/6/2018
6. C8055H (XEROX C8055H)	<ul style="list-style-type: none"> <li>- 1 Line Fax</li> <li>- Booklet Maker Unit</li> <li>- Office Finisher Lx</li> <li>- Convenience Stapler</li> <li>- Wireless Print Kit</li> <li>- Customer Ed</li> <li>- Analyst Services</li> </ul>	Lease Term: 60 months Purchase Option: FMV	- Xerox 7855PT S/N MX4342341 Trade-In as of Payment 57	11/6/2018
7. C8055H (XEROX C8055H)	<ul style="list-style-type: none"> <li>- 1 Line Fax</li> <li>- Booklet Maker Unit</li> <li>- Office Finisher Lx</li> <li>- Convenience Stapler</li> <li>- Wireless Print Kit</li> <li>- Customer Ed</li> <li>- Analyst Services</li> </ul>	Lease Term: 60 months Purchase Option: FMV	- Xerox 7855PT S/N MX4342348 Trade-In as of Payment 56	11/6/2018
8. C8055H (XEROX C8055H)	<ul style="list-style-type: none"> <li>- 1 Line Fax</li> <li>- Booklet Maker Unit</li> <li>- Office Finisher Lx</li> <li>- Convenience Stapler</li> <li>- Wireless Print Kit</li> <li>- Customer Ed</li> <li>- Analyst Services</li> </ul>	Lease Term: 60 months Purchase Option: FMV	- Xerox 7855PT S/N MX4342360 Trade-In as of Payment 56	11/6/2018



**Solution (Cont'd)**

Item	Product Description	Agreement Information		Trade Information	Requested Install Date
9. C8055H (XEROX C8055H)	<ul style="list-style-type: none"> <li>- 1 Line Fax</li> <li>- Booklet Maker Unit</li> <li>- Office Finisher Lx</li> <li>- Convenience Stapler</li> <li>- Wireless Print Kit</li> <li>- Customer Ed</li> <li>- Analyst Services</li> </ul>	Lease Term:	60 months	- Xerox 7855PT S/N MX4342371	11/6/2018
		Purchase Option:	FMV	Trade-In as of Payment 56	
10. C8055H (XEROX C8055H)	<ul style="list-style-type: none"> <li>- 1 Line Fax</li> <li>- Booklet Maker Unit</li> <li>- Office Finisher Lx</li> <li>- Convenience Stapler</li> <li>- Wireless Print Kit</li> <li>- Customer Ed</li> <li>- Analyst Services</li> </ul>	Lease Term:	60 months	- Xerox 7855PT S/N MX4342378	11/6/2018
		Purchase Option:	FMV	Trade-In as of Payment 56	
11. C8055H (XEROX C8055H)	<ul style="list-style-type: none"> <li>- 1 Line Fax</li> <li>- Booklet Maker Unit</li> <li>- Office Finisher Lx</li> <li>- Convenience Stapler</li> <li>- Wireless Print Kit</li> <li>- Customer Ed</li> <li>- Analyst Services</li> </ul>	Lease Term:	60 months	- Xerox 7855PT S/N MX4342379	11/6/2018
		Purchase Option:	FMV	Trade-In as of Payment 56	

**Monthly Pricing**

Item	Lease Minimum Payment	Print Charges			Maintenance Plan Features
		Meter	Volume Band	Per Print Rate	
1. C8055H	\$129.87	1: Black and White Impressions	All Prints	\$0.0059	- Consumable Supplies Included for all prints - Pricing Fixed for Term
		2: Color Impressions	All Prints	\$0.0370	
2. C8055H	\$131.73	1: Black and White Impressions	All Prints	\$0.0059	- Consumable Supplies Included for all prints - Pricing Fixed for Term
		2: Color Impressions	All Prints	\$0.0370	

**Monthly Pricing (Cont'd)**

Item	Lease Minimum Payment	Print Charges			Maintenance Plan Features
		Meter	Volume Band	Per Print Rate	
3. C8055H	\$131.73	1: Black and White Impressions 2: Color Impressions	All Prints All Prints	\$0.0059 \$0.0370	- Consumable Supplies Included for all prints - Pricing Fixed for Term
4. C8055H	\$131.73	1: Black and White Impressions 2: Color Impressions	All Prints All Prints	\$0.0059 \$0.0370	- Consumable Supplies Included for all prints - Pricing Fixed for Term
5. C8055H	\$131.73	1: Black and White Impressions 2: Color Impressions	All Prints All Prints	\$0.0059 \$0.0370	- Consumable Supplies Included for all prints - Pricing Fixed for Term
6. C8055H	\$131.73	1: Black and White Impressions 2: Color Impressions	All Prints All Prints	\$0.0059 \$0.0370	- Consumable Supplies Included for all prints - Pricing Fixed for Term
7. C8055H	\$131.73	1: Black and White Impressions 2: Color Impressions	All Prints All Prints	\$0.0059 \$0.0370	- Consumable Supplies Included for all prints - Pricing Fixed for Term
8. C8055H	\$131.73	1: Black and White Impressions 2: Color Impressions	All Prints All Prints	\$0.0059 \$0.0370	- Consumable Supplies Included for all prints - Pricing Fixed for Term
9. C8055H	\$131.73	1: Black and White Impressions 2: Color Impressions	All Prints All Prints	\$0.0059 \$0.0370	- Consumable Supplies Included for all prints - Pricing Fixed for Term

**Monthly Pricing (Cont'd)**

Item	Lease Minimum Payment	Print Charges			Maintenance Plan Features
		Meter	Volume Band	Per Print Rate	
10. C8055H	\$131.73	1: Black and White Impressions	All Prints	\$0.0059	- Consumable Supplies Included for all prints - Pricing Fixed for Term
		2: Color Impressions	All Prints	\$0.0370	
11. C8055H	\$131.73	1: Black and White Impressions	All Prints	\$0.0059	- Consumable Supplies Included for all prints - Pricing Fixed for Term
		2: Color Impressions	All Prints	\$0.0370	
<b>Total</b>	<b>\$1,447.17</b>	<b>Minimum Payments (Excluding Applicable Taxes)</b>			

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## Exhibit B: New Lease Cost Analysis

Location	Account	Past Year Blk&Wh Prints	Past Year Color Prints	Past Year Cost Blk&Wh Prints	Past Year Cost Color Prints	Fixed Lease Cost per Year	Tax 9.35%	Total/Yr
102 - Court	60-5224-21-6920	38198	26776	\$225.368	\$990.712	\$1,558.440	\$259.418	\$3,033.938
108 - City Attorney	60-5224-21-6920	29425	2787	\$173.608	\$103.119	\$1,580.760	\$173.675	\$2,031.161
100 - Police Records	60-5224-21-6920	51438	25330	\$303.484	\$937.210	\$1,580.760	\$263.806	\$3,085.260
104 - Community Development 14	60-5224-21-6920	19445	31999	\$114.726	\$1,183.963	\$1,580.760	\$269.228	\$3,148.677
WW - Administration	59-5224-21-6920	21509	12658	\$126.903	\$468.346	\$1,580.760	\$203.457	\$2,379.466
108 - Public Works	60-5224-21-6920	34858	24030	\$205.662	\$889.110	\$1,580.760	\$250.162	\$2,925.694
106 - City Manager	60-5224-21-6920	14836	24467	\$87.532	\$905.279	\$1,580.760	\$240.629	\$2,814.200
102 - City Clerk	60-5224-21-6920	16484	18924	\$97.256	\$700.188	\$1,580.760	\$222.362	\$2,600.566
106 - Finance	60-5224-21-6920	41264	18081	\$243.458	\$668.997	\$1,580.760	\$233.116	\$2,726.330
100 - Police Patrol	60-5224-21-6920	29004	7603	\$171.124	\$281.311	\$1,580.760	\$190.104	\$2,223.298
104 - Community Development 15	60-5224-21-6920	25788	32105	\$152.149	\$1,187.885	\$1,580.760	\$273.094	\$3,193.888
<b>Totals:</b>		<b>322249</b>	<b>224760</b>	<b>\$1,901.269</b>	<b>\$8,316.120</b>	<b>\$17,366.040</b>	<b>\$2,579.051</b>	<b>\$30,162.480</b>
<b>Color Price/Sheet:</b>				\$0.0370				
<b>Blk Price/Sheet:</b>				\$0.0059				
<b>Print Buffer (10%):</b>				1.1				
<b>Fixed Cost/yr inc Taxes:</b>				\$18,989.765				
<b>Print Cost/yr inc Taxes:</b>				\$11,172.715				
<b>Total Cost per Year inc Taxes:</b>				\$30,162.480				
<b>Total with Multiplier:</b>				<b>\$31,279.751</b>				
<b>Fixed Cost over 5 Years:</b>				\$94,948.824				
<b>Print Cost over 5 Years:</b>				\$55,863.575				
<b>Total Cost over 5 Years inc Taxes</b>				\$150,812.399				
<b>Total with Multiplier:</b>				<b>\$156,398.756</b>				
<b>Yearly Budget Program 60:</b>				\$28,835.195				
<b>Yearly Budget Program 59:</b>				\$2,444.556				

## Exhibit C: Current Lease Cost Analysis

Location	Account	Past Year Blk&Wht Prints	Past Year Color Prints	Past Year Cost Blk&Wht Prints	Past Year Cost Color Prints	Fixed Lease Cost per Year	Tax 9.35%	Total/Yr
102 - Court	60-5224-21-6920	38198	26776	\$213.909	\$1,354.866	\$1,793.160	\$314.341	\$3,676.275
108 - City Attorney	60-5224-21-6920	29425	2787	\$164.780	\$141.022	\$1,793.160	\$196.253	\$2,295.215
100 - Police Records	60-5224-21-6920	51438	25330	\$288.053	\$1,281.698	\$1,793.160	\$314.432	\$3,677.343
104 - Community Development 14	60-5224-21-6920	19445	31999	\$108.892	\$1,619.149	\$1,793.160	\$329.232	\$3,850.434
WW - Administration	59-5224-21-6920	21509	12658	\$120.450	\$640.495	\$1,528.920	\$214.102	\$2,503.968
108 - Public Works	60-5224-21-6920	34858	24030	\$195.205	\$1,215.918	\$1,793.160	\$299.600	\$3,503.883
106 - City Manager	60-5224-21-6920	14836	24467	\$83.082	\$1,238.030	\$1,793.160	\$291.184	\$3,405.456
102 - City Clerk	60-5224-21-6920	16484	18924	\$92.310	\$957.554	\$1,793.160	\$265.823	\$3,108.848
106 - Finance	60-5224-21-6920	41264	18081	\$231.078	\$914.899	\$1,793.160	\$274.809	\$3,213.946
100 - Police Patrol	60-5224-21-6920	29004	7603	\$162.422	\$384.712	\$1,793.160	\$218.818	\$2,559.112
104 - Community Development 15	60-5224-21-6920	25788	32105	\$144.413	\$1,624.513	\$1,793.160	\$333.055	\$3,895.141
<b>Totals:</b>		<b>322249</b>	<b>224760</b>	<b>\$1,804.594</b>	<b>\$11,372.856</b>	<b>\$19,460.520</b>	<b>\$3,051.650</b>	<b>\$35,689.621</b>
<b>Color Price/Sheet:</b>				\$0.0506				
<b>Blk Price/Sheet:</b>				\$0.0056				
<b>Print Buffer (10%):</b>				1.1				
<b>Fixed Cost/yr inc Taxes:</b>				\$21,280.079				
<b>Print Cost/yr inc Taxes:</b>				\$14,409.542				
<b>Total Cost per Year inc Taxes:</b>				\$35,689.621				
<b>Total with Multiplier:</b>				<b>\$37,130.575</b>				
<b>Fixed Cost over 5 Years:</b>				\$106,400.393				
<b>Print Cost over 5 Years:</b>				\$72,047.710				
<b>Total Cost over 5 Years inc Taxes</b>				\$178,448.103				
<b>Total with Multiplier:</b>				<b>\$185,652.874</b>				
<b>Yearly Budget Program 60:</b>				\$34,543.398				
<b>Yearly Budget Program 59:</b>				\$2,587.177				

**Douglas A. Ducey**  
Governor



**Gilbert Davidson**  
Chief Operating  
Officer and Interim  
Director

**ARIZONA DEPARTMENT OF ADMINISTRATION**

STATE PROCUREMENT OFFICE

100 NORTH FIFTEENTH AVENUE • SUITE 402  
PHOENIX, ARIZONA 85007

(602) 542-5511 (main)  
<http://spo.az.gov>

October 5, 2018

Sent via e-mail to: [ann.russo@xerox.com](mailto:ann.russo@xerox.com)

Re: Award of Contract for Solicitation No. ADSPO18-00008023 for Multifunction Devices, Including Supplies and Maintenance

Dear Ann Russo,

Thank you for submitting a response to the Request for Proposal Solicitation No. ADSPO18-00008023 for Multifunction Devices, Including Supplies and Maintenance. I am pleased to inform you that Xerox Corporation has been selected for award.

The initial contract term shall begin on **November 1, 2018**

All offers received were evaluated in accordance with the evaluation criteria set forth in the solicitation document. The procurement file for this solicitation, including evaluation documents and resultant contracts, will be shortly available for public viewing via the State's e-Procurement system, ProcureAZ.

In accordance with Special Terms and Conditions, Section 6.7 of the contract and prior to beginning work under the contract, your company is required to submit a Certificate of Insurance to the State Procurement Office if you have not already done so. The certificate of insurance shall indicate that your company is in compliance with insurance requirements contained in the contract. **Please submit your certificate of insurance to me no later than October 29, 2018**

You are cautioned not to begin any work under this new contract until the Procurement Officer assigned to your contract has issued a written notice to proceed.

If you have any questions regarding your company's contract, please contact me at [rocky.advani@azdoa.gov](mailto:rocky.advani@azdoa.gov) or 602.542.0100. Thank you for your response and for your continued interest in doing business with the State of Arizona.

Sincerely,

A handwritten signature in cursive script that reads "R Advani".

Rocky Advani  
State Procurement Manager



# Request for Proposal

Solicitation No.  
ADSPO18-00008023

Description:  
Multifunction Devices, Including Supplies and Maintenance

Arizona Department of Administration  
**State Procurement Office**  
100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

## Section 1: Solicitation Summary

The Arizona Department of Administration, State Procurement Office division (the State), as authorized under A.R.S. § 41-2501 is seeking to establish one or more “statewide” contracts to satisfy the needs for all state agencies, boards, and commissions, as well as participating purchasing cooperative members (collectively, the Eligible Agencies) to provide **Multifunctional Devices, including supplies and maintenance**, which in general terms includes new purchase and current fleet that include purchased, rented or leased equipment. **The contract shall include service coverage for all currently placed fleet as well as devices that are procured through this contract.** The Special Terms and Conditions provide a more detailed definition of Eligible Agencies, and a list of all state agencies and purchasing cooperative members is available on the State Procurement Office website at:

<https://spo.az.gov/procurement-services/cooperative-procurement/state-purchasing-cooperative>

The State anticipates multiple awards to this contract based on scoring criteria defined in Section 3, Instructions to Offerors.

### **OFFERORS SHOULD READ THE ENTIRE SOLICITATION CAREFULLY.**

#### **1.0 What’s in the Solicitation**

Part 1	Section 1: Solicitation Summary	<i>ProcureAZ file #1: ADSPO18-00008023_Open_Me_First_Multifunction_Devices_.PDF</i>
Part 2	Section 2-A: Scope of Work	<i>ProcureAZ file #2: ADSPO18-00008023_RFP_Multifunction_Devices.PDF</i>
	Section 2-B: Pricing Document	
	Section 2-C: Special Terms and Conditions	
	Section 2-D: Uniform Terms and Conditions	
Part 3	Section 3-A: Instructions to Offerors	<i>ProcureAZ file #3: ADSPO18-00008023_Offer_Forms_Multiunction_Devices.DOC</i>
	Section 3-B: Offer forms	

#### **2.0 How and When Proposals Are Due**

Proposals will only be accepted **online in the “ProcureAZ” system at <https://procure.az.gov> until the “Bid Opening Date” indicated in ProcureAZ for the Solicitation No. shown at the top of this page.** Proposals must be in the State Procurement Office’s possession online no later than that deadline.



## Request for Proposal

Solicitation No.  
ADSPO18-00008023

Description:  
Multifunction Devices, Including Supplies and Maintenance

Arizona Department of Administration  
**State Procurement Office**  
100 N 15th Ave., Suite 402  
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LATE PROPOSALS WILL NOT BE CONSIDERED. No extension or grace period will be given for delays or incomplete proposals caused by internet connectivity problems, file uploading difficulties, or misunderstanding of the requirements or procedures for online submission in ProcureAZ.

### **3.0 Pre-Offer Conference**

The State WILL conduct a Pre-Offer Conference for this Solicitation at **100 N. 15<sup>th</sup> Ave, Phoenix AZ 85007 in the ADOA 1<sup>st</sup> Floor Conference Room on May 1<sup>st</sup>, 2018 from 9:30 a.m. Arizona Time – 11:00 a.m Arizona Time**; attendance is optional. Refer to paragraph 2.7 of the Instructions to Offerors for more information.

### **4.0 Inquiries**

Any question related to this Request for Proposal shall be submitted utilizing the “Q&A” tab within ProcureAZ. The Offeror shall not contact or ask questions of the department for which the requirement is being procured.

**End of Section 1**



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## Part 2: Scope, Pricing and Terms and Conditions

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### SECTION 2-A: Scope of Work

1. Introduction:

The State of Arizona, its' Agencies, Boards and Commissions (State) as well as Participating Members of the State Purchasing Cooperative (Cooperative), have an ongoing requirement for various products and services as described herein. The purpose of this solicitation is to conduct a competitive process, in accordance with Arizona Revised Statutes (ARS) 41-2501 et seq., to create a contract(s) from which the State and its Cooperative Members may acquire these products and services.

2. Background:

The State desires to establish a Contract or Contract Set to supply the needs for multifunctional devices throughout the State of Arizona. The State and the cooperative members currently have fleets that include purchased, rented or leased equipment. This contract shall include service coverage for all currently placed fleet as well as devices that are procured through this contract. Contracts resulting from this solicitation will be used by multiple eligible agencies with delivery locations throughout the State.

The following items are excluded from the RFP Scope of Work:

- Managed Print Services

3. Definitions:

3.1 Accessory - Any items that may be added to the base marking engine.

3.2 Authorized Dealer - A Manufacturer's authorized sales and service center that shall be certified by the Manufacturer to sell the Manufacturer's products, perform machine installation, maintenance on machines offered.

3.3 Cancelable Rental - Shall meet the financial requirements of an Operational Lease but shall be cancelable given thirty (30) days written notice, at any time during the rental term without penalty.

3.4 Leasing and Rentals

3.4.1 Operating lease agreements (Fair Market Value Leases), as well as straight rental agreements, between the Contractor and any Eligible Agency are allowable under this Contract.

3.4.1.1 Operating leases are those agreements where agencies do not obtain title to or ownership of, only the temporary possession and use of, the leased property.

3.4.2 In the event of a conflict between the provisions of a lease (or rental) agreement and Contract terms and conditions, the Contract terms and conditions shall prevail.

3.4.3 Any State entity entering into a lease agreement as allowed herein shall follow the policies outlined in the State of Arizona Accounting Manual. Any questions as to the State's policy should be directed to the ADOA General Accounting Office. Inquiries can be sent via email to [gaopolicy@azdoa.gov](mailto:gaopolicy@azdoa.gov).

3.4.4 To ensure compliance with Article 9, Section 5 of the State of Arizona Constitution, installment purchase agreements, or those agreements where title to the property is transferred to the lessee at the inception of the agreement, shall be prohibited under this contract.

3.5 Equipment Downtime - Is defined as the period of time a piece of equipment is waiting for service to be completed. This time starts with the original service call into the Contractor and ends once all repairs, part installations, equipment modifications, configuration changes, or any prescribed work is completed and the Equipment functions according to OEM published specifications.



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### 3.6 Equipment Functions and Options

- 3.6.1 Automatic Document Feeder (ADF) - An accessory that feeds original documents automatically, one at a time to the exposure glass for scanning and copying;
- 3.6.2 Automatic Exposure Selection (AES) - A feature that automatically adjusts the exposure when copying from originals with different background shadings;
- 3.6.3 Automatic Magnification Selection (AMS) - A feature that after detecting the correct size of each original document, the copier automatically calculates the correct magnification (zoom) ratio to fit the paper size selected by the Equipment Operator;
- 3.6.4 Automatic Paper Selection (APS) - A feature that is a built on sensor that detects the size of the original and the copier selects the proper paper size;
- 3.6.5 Automatic Tray Switching (ATS) - A feature that enables a copier to automatically switch from a depleted paper source to another;
- 3.6.6 Automatic Start (AS) - A feature that allows the Equipment Operator to program jobs prior to the Equipment warm-up phase;
- 3.6.7 Base Cabinet - A cabinet placed under a console device, thereby allowing the device to be a standalone unit, instead of a paper-feed unit.
- 3.6.8 Paper-Feed Units - Expands the paper capacity by providing two (2) or more additional paper sources such as cassettes, drawers or trays. Additionally paper-feed units act as a support for base units to utilize the device as a standalone unit (resting on the floor) instead of a base cabinet. For Segments 2 (Console), 3 and 4, the paper-feed units include a minimum of two (2) paper cassettes, drawers or trays.
- 3.6.9 Bypass Paper Supply - A side opening tray into which copying materials may be inserted for the use of copying onto. Should hold multiple sheets of copying material.
- 3.6.10 Data Security Kit - The kit and software required to enable the encryption of all data written to the hard drive.
- 3.6.11 Finisher - An accessory that delivers finished/stapled sets into an offset catch tray(s). Finishers are subdivided into the following classifications:
  - 3.6.11.1 Advanced Finisher - A Finisher that is free standing from the output device, offers a minimum fifty (50) page multi position stapling capacity and can be configured with any combination of three hole punching and saddle stitch finishing;
  - 3.6.11.2 Basic Office Finisher - A Finisher that is free standing from the output device and offers a minimum fifty (50) page stapling capacity; and
  - 3.6.11.3 Internal/Wing Finisher - A Finisher that either is internal to the device or is an attachment to the output side of the device and offers a minimum twenty-five (25) page stapling capacity. Wing Finishers are not free standing by original manufacturing design and relies on the output device for support.
- 3.6.12 Hard Drive Security Kit - The parts and software required to enable US Department of Defense (DoD) standards for data overwrite.



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- 3.6.13 Large Capacity Tray (LCT) - A paper source capable of handling more than one thousand (1,000) sheets of paper.
- 3.6.14 Margin Shift - The ability of a machine to shift the image to the right and left, on the front, back, and both sides of the copy, to allow for binding or three-hole punching.
- 3.6.15 Network Connectivity Kit - All parts, boards, software (internal to the machine) to sufficiently enable the copier to network print, scan to the network folder, scan to email (including server based or POP3) and scan to desktop.
- 3.6.16 Network Security Kit - All necessary parts and software to enable encrypted communications between print drivers and a copier including any necessary specialized print drivers.
- 3.6.17 Post Process Insertion Kit - An accessory that allows for the insertion of substrates without requiring the material to be fused.
- 3.6.18 Reversing Automatic Document Feeders (RADF) - A Feeder that performs the same functions as an ADF with the added capability to automatically invert (turn) a two-sided original to copy material off of both sides.
- 3.6.19 Scan Speed - The speed a device scans originals through the document feeder at 600x600 DPI resolution or better.
- 3.7 First Time Fix - The measurement of a successful service and technical support call is defined by the Contractor's ability to remedy the underlying issue on the first service call.
- 3.8 Maintenance Service - The scheduled or requested service call to perform quality service checks regarding the performance of the machine, or to diagnose and repair Equipment that has been reported as non-functional.
- 3.9 Replacement Parts - Contractor replacement Equipment mechanical parts that are attached to or integrated into the Equipment that allows or assists the Equipment to function or operate.
- 3.10 Service Zone - There are three (3) established service zones, based on distance from City Center. The service zones are as follows:
  - 3.10.1 Urban - Within fifty (50) miles from a City Center
  - 3.10.2 Rural - Outside fifty (50) miles from a City Center; and
  - 3.10.3 Remote - Areas accessible via road from any Urban or Rural Service Zone regardless of distance.

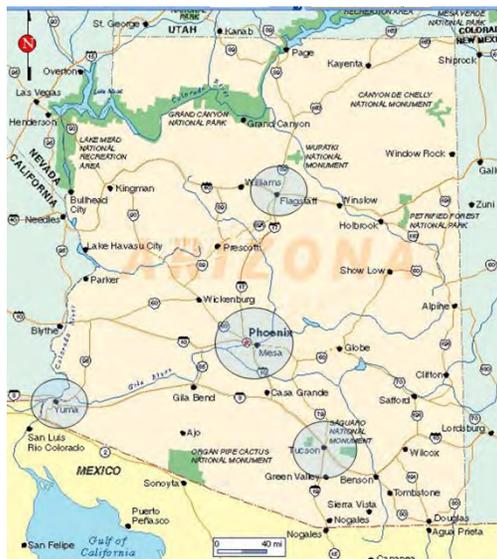


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- 3.11 Service Call - An on-site technician visit due to machine error or breakdown requiring the onsite services of an authorized service technician to remedy the error.
- 3.12 Service Response Time - The time required to solve a service call beginning from the time the call is logged with the Contractor until either a Service Technician arrives on site or the issue is resolved through the Contractor's telephone support.
- 3.13 Supplies - Consumables that are used for the operation of the Equipment and or ensures the operation of the Equipment according to Manufacturer specifications. Supplies do not include staples and paper.
- 3.14 Type of Equipment:
  - 3.14.1 Console Copier - The dimensions, weight or design of this type of Equipment prohibit desktop support; are freestanding and feature built-in consoles. Console copiers are copiers that offer a Base Cabinet and a Paper Feed Unit;
  - 3.14.2 Desktop Copier - The dimensions, weight or design of this type of Equipment allows it to be supported by a desk or optional stand;
  - 3.14.3 Hybrid Copier - A copier based device that combines high-speed four (4) color output with a traditional workgroup or departmental black and white copier/printer. In order for a device to be considered a Hybrid Device, it shall have a rated color production speed within 66% of the rated black and white production speed; and
  - 3.14.4 Multifunction Copier - A device that, by original design, performs Print, Copy and Scan functions.
- 3.15 Segments – The following Segments shall be utilized to group the various speeds of copiers with the Classes referenced in this solicitation:

If a Contractor offers segments greater than what is defined within the solicitation, Offerors may submit their equipment and define the speed in impressions per minute.

### Class One (1) Black and White Convenience Copiers



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Segment	Speed in Impressions per Minute (IPM)
2	20-29 (Desktop and Console)
3	30-39
4	40-49
5	50-59
6	60-69
7	70-79
8	80-89
9	90-99
10	100-119

### Class Two (2) Hybrid Convenience Copiers

Segment	Black and White Speed in Impressions Per Minute (IPM)
2	20-29 (Console Only)
3	30-39
4	40-49
5	50-59
6	60-69

### Class Three (3) Black and White Production Copiers

Segment	Speed in Impressions per Minute (IPM)
1	100-119
2	120-139
3	140-159

### Class Four (4) Color Production Copiers

Segment	Speed in Impressions per Minute (IPM)
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1	50-59
2	60-69
3	70-79

### Class Five (5) Wide Format Copiers (Black & White and/or Color)

Segment	Speed in Linear Feet Per Minute (LPM)
1	2 - 6
2	7 - 15

4. **Scope of Products and Services:** The Contractor shall be either an Original Equipment Manufacturer (OEM), or Authorized Dealer (Dealer) and shall provide base equipment, hardware accessories and software required to enable and enhance the equipment capabilities (Equipment) as termed to be either a multi-function device and or copier, as may be ordered by the various Agencies, Commissions, Boards and Participating Members, to any location within the geographical area known as the State of Arizona. All Equipment shall be delivered with start-up supplies and all Equipment shall be set-up, installed and production ready upon completion.

Equipment may be purchased, leased or rented, as detailed throughout this solicitation.

The Contractor shall have the ability to assume rental and lease agreements that were previously established through statewide contracts.

The Contractor shall also provide Equipment maintenance services, which includes all categorizations of priority, i.e., Legacy, Preventative, Routine, and Emergency. The Contractor may offer replacement parts as a component of the monthly maintenance expense, or the Contractor may offer replacement parts as a percentage off from published price lists.

Equipment that is sold, rented or leased shall be new and represent the latest model in current production. Used, shopworn, demonstrator, prototype or discontinued models are not acceptable and will be refused and returned to the Contractor at no additional cost to the State.

#### 5. Product Specifications:

5.1 Commercial Product Standard: The Equipment offered shall be in accordance with the requirements of these specifications. A standard commercial product is a product that has been sold or is being currently offered for sale, on the commercial market through advertisements, manufacturer catalogs or brochures, and represents the latest production model. This solicitation shall provide for the following classifications of Equipment:

- 5.1.1 Class One (1) - Convenience Black and White Copiers;
- 5.1.2 Class Two (2) - Convenience Hybrid Copiers;
- 5.1.3 Class Three (3) - Production Black and White Copiers;
- 5.1.4 Class Four (4) - Production Color Copiers; and
- 5.1.5 Class Five (5) - Wide Format Copiers.



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- 5.2 Equipment Configurations:
- 5.2.1 In automatic duplex enabled copiers, the ADF shall be a RADF unless the ADF is equipped to accomplish duplex scanning (scan both sides of the original in the same pass).
  - 5.2.2 All console copiers within Class One (1) and Two (2) shall be capable of the following copier functions: AES, AMS, APS, ATS, AS and Margin Shift.
  - 5.2.3 All copiers shall maintain a scan speed, as defined in this RFP, from an ADF, RADF (including duplex scanners) or separate scanning station, within 66% of the rated speed of the marking engine. Class Three (3) (Production Black and White) shall maintain a scan speed in excess of fifty-five (55) Impressions Per Minute (IPM).
  - 5.2.4 All copiers shall be equipped, at a minimum, with the following components:
    - 5.2.4.1 Marking Engine;
    - 5.2.4.2 Control Panel;
    - 5.2.4.3 Bypass paper supply (except Class three (3) and five (5));
    - 5.2.4.4 Paper Supply equal to or greater than;
      - 5.2.4.4.1 One (1) paper drawer for Segment 2 Desktop copiers,
      - 5.2.4.4.2 Two (2) paper drawers for Segment 2 Console copiers through Segment 4 copiers,
      - 5.2.4.4.3 Four (4) paper drawers and/or 2,000 sheet capacity for Segments 5 and above in Class One (1), Two (2), Three (3) and Four (4), and
      - 5.2.4.4.4 Class Five (5) shall have a minimum paper supply of two (2) rolls;
    - 5.2.4.5 Paper size capacity up to 8.5" x 14" for all Segment 2 desktop copiers and 11" x 17" for all other Segments in Classes One (1), Two (2), Three (3), and Four (4). Class Five (5) copiers shall have a maximum paper size for "E" sized drawings; and
    - 5.2.4.6 All console copiers in Class One (1), Two (2), and Four (4) shall be equipped for duplex copying.
  - 5.2.5 Class One (1) and Two (2) Minimum Available Options - The following optional accessories shall be available for all equipment proposed in Class One (1) and Two (2):
    - 5.2.5.1 **Segment 2 Console** - Network Connectivity Kit, Paper-Feed unit, Basic Office Finisher, Internal Finisher, ADF/RADF, Hard Drive Security Kit, Power Protection and Facsimile;
    - 5.2.5.2 **Segment 2 Desktop** - Network Connectivity Kit (or connectivity to a single PC via USB connection for Printing and Scanning), One (1) additional paper drawer, Document Feeder, Power Protection and Facsimile;
    - 5.2.5.3 **Segment 3** - Network Connectivity Kit, Paper-Feed Unit, Basic Office Finisher, Advanced Office Finisher, Internal/Wing Finisher, ADF/ADF, Booklet Maker, Inline 3-Hole Punch, Large Capacity Tray, Hard Drive Security Kit, Power Protection and Facsimile;



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- 5.2.5.4 **Segment 4** - Network Connectivity Kit, Paper-Feed Unit, Basic Office Finisher, Advanced Office Finisher, Internal/Wing Finisher, ADF/ADF, Booklet Maker, Inline 3-Hole Punch, Large Capacity Tray, Hard Drive Security Kit, Power Protection and Facsimile;
  - 5.2.5.5 **Segment 5** - Network Connectivity Kit, Basic Office Finisher, Advanced Office Finisher, ADF/ADF, Booklet Maker, Inline 3-Hole Punch, Large Capacity Tray, Hard Drive Security Kit, Power Protection and Facsimile;
  - 5.2.5.6 **Segment 6** - Network Connectivity Kit, Basic Office Finisher, Advanced Office Finisher, ADF/ADF, Booklet Maker, Inline 3-Hole Punch, Large Capacity Tray, Hard Drive Security Kit and Power Protection;
  - 5.2.5.7 **Segment 7** - Network Connectivity Kit, Basic Office Finisher, Advanced Office Finisher, ADF/ADF, Booklet Maker, Inline 3-Hole Punch, Large Capacity Tray, Hard Drive Security Kit and Power Protection;
  - 5.2.5.8 **Segment 8** - Network Connectivity Kit, Basic Office Finisher, Advanced Office Finisher, ADF/ADF, Booklet Maker, Inline 3-Hole Punch, Large Capacity Tray, Hard Drive Security Kit and Power Protection;
  - 5.2.5.9 **Segment 9** - Network Connectivity Kit, Basic Office Finisher, Advanced Office Finisher, ADF/ADF, Booklet Maker, Inline 3-Hole Punch, Large Capacity Tray, Hard Drive Security Kit, Post Process Insertion Unit and Power Protection;
  - 5.2.5.10 **Segment 10** - Network Connectivity Kit, Basic Office Finisher, Advanced Office Finisher, ADF/ADF, Booklet Maker, Inline 3-Hole Punch, Large Capacity Tray, Hard Drive Security Kit, Post Process Insertion Unit and Power Protection.
- 5.2.6 All Hybrid Copiers shall comply with the Black and White Segment counterpart, with the addition that all Hybrid Copiers shall include a mandatory accessory of Adobe Postscript.
- 5.2.7 Class Three (3) Minimum Available Options and Specifications - All Class Three (3) copiers shall have as optionally available, the following options:
- 5.2.7.1 Network Connectivity Kit, Additional Paper Drawers/LCT/Additional Paper Supply Modules, Post Process Insertion Units, (or shared paper trays that may be used for this purpose), Booklet Maker, Offset Stacker Finisher, Basic Finisher, Advanced Finisher, Inline 3-Hole Punch, ADF/RADF/Scan Station and Make Ready Software. Class Three (3) will further be limited to devices that have a monthly duty cycle in excess of 750,000 impressions as defined by the Manufacturers' rated monthly **maximum**;
- 5.2.8 Class Four (4) Minimum Available Options and Specifications - All Class Four (4) copies shall have as optionally available accessory, the following options:
- 5.2.8.1 Network Connectivity Kit, Additional Paper Drawers/LCT/Additional Paper Supply Modules, Post Process Insertions Unit (or shared paper trays that may be used for this purpose), Booklet Maker, Offset Stacker Finisher, Basic Finisher, Advanced Finisher, Inline 3-Hole Punch and ADF/RADF/Scan. Class Four (4) will further be limited to devices that have a monthly duty cycle in excess of 750,000 impressions as defined by the Manufacturers' rated monthly **maximum**.
- 5.2.9 Class Five (5) Minimum Available Options - All Class Five (5) copiers shall have as optionally available accessory the following options:



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5.2.9.1 Network Connectivity Kit and Additional Paper Drawers.

5.2.10 Equipment Minimums:

5.2.10.1 All Equipment shall be newly manufactured equipment and currently in production, except as specifically provided for within this RFP;

5.2.10.2 Equipment shall have published specifications;

5.2.10.3 Equipment shall meet or exceed the speed requirements for each Segment of Equipment in each Class; and

5.2.10.4 Equipment shall be Energy Star® compliant.

5.3. Installation and Environmental Requirements - Prior to order acceptance, the Contractor shall advise the Customer of any and all specialized installation and environmental Customer site requirements for delivery and installation of the Equipment. This information should include, but is not limited to:

5.3.1 Air Conditioning;

5.3.2 Electrical Requirements;

5.3.3 Special Grounding;

5.3.4 Cabling Requirements;

5.3.5 Space Requirements;

5.3.6 Humidity and temperature limits; and

5.3.7 Any other considerations critical to the installation.

5.4. Technology Requirements:

5.4.1 **Network Connections** - Equipment shall use only one (1) network connection to accomplish network printing and scanning.

5.4.2 **Print Drivers** - All software and drivers shall be Windows Compliant, as well as all Equipment shall have pre-configurable print drivers for scripting and push method installation on PC's.

5.4.3 **Technology, Authentication and Access** - Any network connected devices (with the exception of Segment 2 Desktop and all Class Three (3) and Four (4) segments) shall offer authentication for all features via LDAP and or Windows AD and the ability to disable authentication for any and all features.

The credential information from any remote authentication method may not be maintained within the copier's memory or persistent storage.

Access to the device's administrative functions shall be password protected as per any password requirements and shall be changed from default at the time of install.

5.4.4 **Security** - Console copiers within Class One (1) and Two (2) shall have as an available option, the ability to encrypt any information written to a copier hard drive.



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Equipment shall undergo a cleansing or erasure of the hard drives at the end of the product life or when any hard drive leaves Customer control.

Equipment shall have the capability for a least a onetime overwrite after the completion of each print/scan job and a structured three (3) times overwrite on a weekly off-hours schedule.

5.4.5 **Software** - The Contractor shall provide additional software to aid in the multifunctional aspects of the Equipment for each Class. The software below shall be made available on a case by case basis, depending on Customer requirements.

5.4.5.1 **Advanced Scanning Software (Class One (1) and Two (2))** - Advanced scanning software shall enable a device to de-skew and de-speckle scans as well as provide functionality to scan to searchable PDF files and scan to multiple software applications such as OCR text with formatting (if applicable). Advanced scanning software may be internal to the copier, external software to be utilized on desktop computer or standalone devices that are attached to the copier. In the case of standalone devices, the software shall share a network drop with the copier and not require an additional network drop for its functionality.

5.4.5.2 **Advanced Scanning Interface Software (Class One (1) and Two (2))** - Advanced scanning software shall enable copier devices to scan to Electronic Document Management Software (EDM) including Documentum, FileNet, OnBase, Hummingbird and other EDM applications determined by the State. Additionally the software shall enable an end user to enter indexing fields for the EDM system that will be passed to the system along with the file. This class of software shall have interfaces authorized and updated periodically by the EDM Manufacturer. Advanced Scanning Interface Software may be internal to the copier or standalone devices that are attached to the copier. In the case of standalone devices, the device shall share a network drop with the copier and not require an additional network drop for its functionality.

5.4.5.3 **Simple Accounting Software (Class One (1) and Two (2))** - Simple Accounting Software shall allow for the accounting copies and prints through a simple code entered at the copier as well as through the print driver. The usage information should be retained at the copier level.

Additional functionality that is desirable is **additional** server based software that aggregates this usage information by user code showing the total impression accomplished.

5.4.5.4 **Advanced Accounting Software (Class One (1) and Two (2))** - Advanced Accounting Software shall be copier run software or server based software that will allow for the accounting of all impressions through the use of LDAP, AD or an independent server based database. The program shall control access to the copier and measure the usage. Additionally the software shall have the ability as an option, or included with the software package, to create charge back reports or debit accounts for usage, including common accounting systems and cash control system such as for public or student use in a library. Lastly as an option, these programs may have the ability to interface with copier control devices such as bar code readers and magnetic card readers.

5.4.5.5 **Make Ready Software (Class Three (3) and Four (4))** - Make Ready Software shall be capable of performing the following tasks: de-speckle of scanned originals, de-skew of



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scanned originals, impositioning of pages, insertion of additional pages, tab insertion, pagination, crash numbering, Bates Stamping and submission of the job to the copier.

5.4.5.6 Production Management Software (Class Three (3) and Four (4)) - Production Management Software shall have the capability to monitor the production workflow, load balance between multiple devices and perform color/black and white splitting (and pre-programming for document insertion and recombination).

5.4.5.7 Simple Online Submission Software (Class Three (3) and Four (4)) - Simple Online Submission Software shall be capable of:

5.4.5.7.1 Submission of print jobs through a web server;

5.4.5.7.2 Conversion of print jobs to PDF format either through a print driver or through uploading to the web server;

5.4.5.7.3 Customization of the submission site including branding (naming and logo), finishing options, paper available and services available;

5.4.5.7.4 Capability to insert cost center codes;

5.4.5.7.5 Capability to print job ticket;

5.4.5.7.6 Capability for secure (password protected) access;

5.4.5.7.7 Secure Administrator access; and

5.4.5.7.8 Catalog ordering of pre-printed materials such as forms.

5.4.5.8 Advanced Online Submission Software (Class Three (3) and Four (4)) - Advanced Online Submission Software shall be capable of:

5.4.5.8.1 All features of the simple online submission software;

5.4.5.8.2 Both print driver and server based conversion of applications to PDF format;

5.4.5.8.3 Cost estimating of print jobs as well as tracking of print jobs throughout the production process;

5.4.5.8.4 Web based queue management;

5.4.5.8.5 Archival capabilities of print jobs for end users;

5.4.5.8.6 LDAP authentication capabilities; and

5.4.5.8.7 Usage reporting for chargeback purposes.

## 6. Maintenance and Services

### 6.1. Warranty

6.1.1 All Equipment shall carry a minimum ninety (90) day warranty that is free from defects in material and workmanship. If defects are identified, the Contractor shall repair or replace defective parts promptly on a like-for-like basis without additional cost to the Customer. Any and all items failing during the warranty period will be replaced free of charge. Upon significant failure, the warranty period will commence again for a minimum ninety (90) additional days.



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- 6.2 Maintenance
- 6.2.1 The Contractor shall offer at least two of the three variations of Services and Maintenance Programs listed below:
- 6.2.1.1 Option 1 - A program based on a monthly flat fee, with unlimited B&W copies and Color copies (if applicable for said equipment), and shall include all supplies; and
- 6.2.1.2 Option 2 - A program that shall include a cost per copy beyond the specified monthly minimum copy counts, and shall include supplies; and
- 6.2.1.3 Option 3 – A program based on a monthly flat fee, with unlimited B&W copies and a cost per copy for Color copies, and shall include all supplies.
- 6.2.2 The Contractor shall provide maintenance services after the initial ninety (90) warranty according to the method and costs as awarded. These services shall be categorized into the following categories:
- 6.2.2.1 Scheduled/Preventative Maintenance - shall include the provision of all supplies, cleaning, diagnostics, or other activities required to maintain the manufacturer's recommended performance levels. Replacements parts are to be made available for an additional cost. The interval of these services shall be either as recommended by the Manufacturer, or as requested by the Customer. This category shall also include any Emergency repair requests during normal business hours.
- 6.2.2.2 Legacy Maintenance - shall include the above services as stated for Scheduled/Preventative, except these services shall be reserved for Equipment previously purchased, leased or rented through other State contract vehicles or Procurement Opportunities. Specific Contract vehicles shall mean: EPS060122, and ADSP012-015669, ADSP012-015733, ADSP012-015699, and ADSP012-015851.
- 6.2.2.3 No Maintenance - shall provide services on an as needed request. If the State chooses this option for any installed Equipment, the State shall be charged an hourly rate and will also be responsible for any parts necessary to repair the Equipment. Supplies shall be purchased separately utilizing other Contracts if available.
- 6.2.2.4 Rental/Lease Equipment Maintenance – Scheduled/Preventative Maintenance shall be included in the agreement price of equipment being placed through a Rental or Lease Agreement. Maintenance for Rented and Leased equipment shall include a provision for all replacements parts at no additional charge.
- 6.3 Hard Drive Surrender Services; The State may engage the Contractor to provide Hard Drive Surrender Services on eligible equipment. If engaged to provide this services, the Contractors Service Technicians will remove the hard drive from the applicable equipment, as shown on the Contractor's work order and provide the entity custody of the hard drive before the equipment is removed from the location or any other disposition of the equipment.
- 6.4 As stated in the Definitions, the provision of Maintenance and Services shall be provided for the entire State of Arizona. The State has been designated into three (3) service areas; Urban, Rural and Remote.
- 6.4.1 Urban - All cities specified as Urban shall include any outlying communities as Urban, regardless if any portion is beyond the specified radius. The following Cities are classified as Urban:
- 6.4.1.1 Flagstaff;



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- 6.4.1.2 Yuma;
- 6.4.1.3 Tucson; and
- 6.4.1.4 Phoenix

6.4.2 All other areas not classified above in 6.4.1 shall be considered as Rural and or Remote.

6.5 Services other than Maintenance shall include the following:

- 6.5.1 Customer consultation regarding Equipment functionality, attributes, and or other requirements.
  - 6.5.1.1 Customer may request that the Contractor come into their agency and perform an analysis that would overlook all equipment currently in the fleet then provide a report to the customer that states recommendations as well as potential cost savings. What the final analysis is to include is to be agreed upon between the Customer and the Contractor, mutually.
  - 6.5.1.2 This service shall be charged at an hourly rate to the requesting customer.
- 6.5.2 Customer Point of Contact(s) for questions regarding sales, quote development, billing, and maintenance;
- 6.5.3 Contractor shall provide toll free phone, local phone, facsimile, email, internet and any electronic automated method for the State to place service calls;
- 6.5.4 Equipment Additions and Moves; and
- 6.5.5 Training.

6.6 Reporting Requirements

The Contractor will be responsible for remotely or physically taking meter readings monthly at each Equipment site. The Contractor may provide an electronic method for providing periodic meter readings. These electronic methods may include online submission and or automated electronic submission to be performed by the equipment in place via an available network connection as approved by the Customer.

If the room or location where the Equipment is installed is not accessible at the time of the reading, then a verbal reading will be relayed to the Contractor. Copy volumes will be shown on a report and shall be supplied by the Contractor. The reporting will contain the following data:

- 6.6.1 Machine serial number;
- 6.6.2 Meter reading;
- 6.6.3 "Unusable Copies" count;
- 6.6.4 Number of copies used during service calls; and
- 6.6.5 Authorized Key Operator signature.

If the Customer does not have the ability or preference to not provide the Contractor access to the available network connection, the Contractor shall ensure other mechanisms shall be in place to provide this service.

Reporting will constitute the total copy volume for a single calendar month.

6.7 Training



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Initial training will occur upon delivery and installation of equipment at the point of delivery. Training will be prescheduled with State designated personnel for both typical and unique operational functions. Training shall be available on a continuing basis during the entire term that the equipment is in service, whether it is a refresher session, training new personnel, or to assist with add-on options that the user has purchased. Proposed training materials shall represent all model offerings. Training shall be provided at no additional cost to the Customer.

### 6.8 Instructions Manuals

Instructions manuals shall be included for each piece of Equipment that is purchased leased or rented. The instruction manual shall contain, but not be limited to:

- 6.8.1 A section defining the capabilities of the Equipment;
- 6.8.2 A general section describing the technical operation of the Equipment;
- 6.8.3 A section describing the installation and use criteria of the Equipment; and
- 6.8.4 A section on the primary points of contact for sales, training, and maintenance/service.

### 7. Pricing Requirements: The Offeror shall propose Equipment and Services that would correlate with both new and previously purchased equipment as follows:

- 7.1 Equipment; Offeror shall make available manufacturer's base model units at a fixed discount off list price. Offeror shall also make available a fixed discount off list price for all associated parts and accessories that are available as options defined within the Scope of Work. Discounts shall be offered in whole numbers. Offeror shall provide equipment in current production and marketed to the general public and education/government agencies at the time the bid is submitted. Proposed discounts shall be submitted using Attachment II "Discount Schedule".
- 7.2 Services; Offeror shall provide services, as described herein, at an hourly or flat rate, whichever is requested for each service. Pricing shall be submitted using the ProcureAZ 'Items' tab.

### 8. Owned Device Trade-in: For Co-ops usage only, Awarded Contractor(s) may allow Co-op Agencies to trade-in owned devices as part of a new agreement under this Contract. The value for the trade-in will be negotiated by the Awarded Contractor(s) and the Co-op Agencies at time of transaction and excludes any disposal or shipping fees.

**No Exhibits apply to the Scope of Work.**

**End of section 2-A**



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## SECTION 2-B: Pricing Document

### 1.0 Compensation

- 1.1 Contractor will be compensated for the satisfactorily carrying out its obligations under the Contract by the method indicated by the “●” mark below:

<input checked="" type="radio"/>	Discount Off List or Catalog
----------------------------------	------------------------------

- 1.1 DISCOUNT OFF LIST OR CATALOG. A discount off list or catalog means a percentage discount to be applied to a base price for from one or more contractually-established price lists against published catalogs. The applicable discounts are scheduled in Exhibit 1 to this Pricing Document.

1.1.1 Equipment;

- (a) Offeror shall make available manufacturer’s base model units at a fixed discount off list price. Offeror shall also make available a fixed discount off list price for all associated parts and accessories that are available as options defined within the Scope of Work. Discounts shall be offered in whole numbers. Offeror shall provide equipment in current production and marketed to the general public and education/government agencies at the time the bid is submitted. Proposed discounts shall be submitted using Attachment 4 “Discount Schedule”. The catalogs used to establish base price are specified otherwise in the Pricing Document. If nothing is so specified, then the commercially available catalogs published by Contractor or Subcontractor to a dealer or reseller network for the covered materials or services are to be used.

1.1.2 Services;

- (a) Offeror shall provide services, as described herein, at an hourly or flat rate, whichever is requested for each service. Pricing shall be submitted using the ProcureAZ “Items” tab.

1.1.3 Each catalog must:

- (a) bear the applicable State contract number;
- (b) list all materials or services Contractor is authorized to sell under the Contract;
- (c) not contain any items that are excluded from the Contract;
- (d) provide ordering information and contact information for customer support.

1.1.4 Each catalog and its accompanying price list must include for each item:

- (a) a part or model number, if applicable;
- (b) a complete and accurate description of the item;
- (c) the manufacturer’s suggested retail price (MSRP) or Contractor’s list price;
- (d) a stock keeping unit (SKU) number (SKU) , if applicable;
- (e) the item’s unit of measure (UOM), if applicable; and
- (f) the quantity in the unit of measure (QUOM), if applicable.

1.1.5 Contractor shall provide and maintain concurrent and identical electronic and hardcopy versions of all contracted price lists and catalogs.

- (a) The electronic versions are to be provided.



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- i. State, at its discretion, may host Contractor's electronic price lists and catalogs directly, or may link through ProcureAZ as a punch-out.
  - ii. Regardless of the number and types of links to Contractor's electronic price lists and catalogs, Contractor shall ensure that all Eligible Agencies and Co-Op Buyers are only able to access one unified set of data.
- (b) Contractor shall supply sufficient, current hardcopy catalogs and price lists price lists to applicable Eligible Agencies at Contract commencement, and provide prompt hardcopy notice of any changes to list/catalog holders as they occur. Contractor shall not change State or any Eligible Agency (or any Co-Op Buyer, if applicable) for lists/catalogs or updates.

## 2.0 Pricing

- 2.1 **CONTRACTOR'S BEST PRICING.** Supplier warrants that, for the term of the Contract, the prices and discounts set out in Exhibit 1 to this Pricing Document, including any subsequent agreed amendment to it (the "Contract Pricing"), will be equal to or better than the lowest prices and largest discounts, both separately and in combination, at which Contractor sells equivalent items of equipment and materials.
- 2.1.1 That price-plus-discount equivalence ("Contractor's Best Pricing") is intended to be irrespective of whether or not those other sales have special purchase terms, conditions, rebates or allowances.
- 2.1.2 If Contractor's Best Pricing for equivalent items of equipment and materials is better than the Contract Pricing, then Contractor agrees to adjust the Contract Pricing to match the Contractor's Best Pricing for all sales related to the Contractor made after the date when the Contractor's Best Pricing was first better than the Contract Pricing.
- 2.1.3 For clarification of intent, that date is intended to be the date when the difference first occurred, which might have been before the difference was first identified. If it was before, then Supplier agrees to charge at less than the Contract Pricing until the extended difference that would have been realized (i.e., if the Contractor's Best Pricing had been applied when it should have been) has been settled.
- 2.2 **ANNUAL ADJUSTMENT.** No earlier than 30 (thirty) days before and no later than each anniversary of the effective date during the term of the Contract, either Contractor or State may request an adjustment to the contracted labor rates and reimbursable costs rates.
- 2.2.1 Each shall respond within 21 (twenty-one) days of the request.
- 2.2.2 Any rates so adjusted will be:
- (a) valid until the next anniversary;
  - (b) only apply to portions of the Work not yet carried out as of that date (i.e., they do not apply retroactively); and
  - (c) not reflected in Contractor's invoices until State provides its formal acceptance by issuing a Contract Amendment.
- 2.3 **SHIPPING.** Equipment shall be F.O.B. Destination and delivered to the specific receiving point at any location within the State of Arizona, as required by the State at the time of order.
- 2.3.1 Contractors shall not charge for equipment that is delivered to the Contractor's facilities prior to delivery and installation at the State's location.
- 2.3.2 All risk of transportation and all related charges shall be the responsibility of the Contractor.



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- 2.3.3 All claims for visible and concealed damage shall be filed by the Contractor. The State will notify the Contractor promptly of any damaged goods and shall assist the Contractor in arranging for inspection if needed.
- 2.3.4 All Equipment shall be delivered and installed at no additional cost, including connectivity to the State’s network. The State shall ensure that the space selected for installation is of adequate size for proper installation and use. The Contractor shall perform complete installation and verify operation of all Equipment.
- 2.4 TAXES. Further to paragraph 4.3 of the Uniform Terms and Conditions, Contractor shall retain title and control of all goods until they are delivered, received and installed.
- 2.5 UPCHARGES. Where the Exhibit 1 to this Pricing Document entitles Contractor to apply upcharges to a unit price or contracted labor rate, Contractor shall in every instance:
  1. include the full upcharge amount in the quote it gives to the Eligible Agency or Co-Op Buyer;
  2. itemize upcharges and show them separately from each unit price or contracted labor rate in the quote it gives to the Eligible Agency or Co-Op Buyer; and
  3. provide an estimated amount where the exact upcharge cannot be precisely defined at the time of the order and follow the Eligible Agency or Co-Op Buyer instructions as to how and when to apply the estimate and actual amount.

## 3.0 Funding

No particular funding considerations apart from paragraph 4.3 of the Uniform Terms and Conditions [*Availability of Funds*] have been identified as of the Solicitation date.

## 4.0 Invoicing

- 4.1 INVOICES GO TO BUYING ENTITY. Contractor shall submit all billing notices or invoices to the ordering Eligible Agency or Co-Op Buyer at the address indicated on the applicable Order document.
- 4.2 MINIMUM INVOICE REQUIREMENTS. Every invoice must include the following information:

Item	Required
Bill-to name and address	●
Contractor name and contact information	●
Remit-to address	●
State contract number	●
Order number (typically the ProcureAZ PO #)	●
Invoice number and date	●
Date the items shipped or services performed	●
Applicable payment terms	●
Contract line item number	●
Contract line item description	●
Quantity delivered or performed	●
Line item unit of measure	●



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Item price	●
Extended pricing	●
Discount off list or catalog	●
Taxes <i>(as a separate invoice line item)</i>	●
Upcharge shipping/freight, etc. <i>(as a separate invoice line item)</i>	Materials only
Total invoice amount due	●

- 4.3 NO INVOICE WITHOUT AUTHORIZATION. Contractor shall not seek payment for any:
1. Materials or Services that have not been authorized on an acknowledged Order;
  2. expediting, overtime, premiums, or upcharges absent State’s express prior approval; or
  3. Materials or Services that are the subject of a Contract Amendment or Change Order that has not been fully signed.
- 4.4 SUBMITTING INVOICES. Contractor shall submit an invoice to the ordering Eligible Agency or Co-Op Buyer, using the form provided or required by the ordering Eligible Agency or Co-Op Buyer. Every invoice must be signed by Contractor’s authorized representative and accompanied by all supporting information and documentation required by the Contract and applicable laws.
- 4.5 DEFECTIVE INVOICES. Without prejudice to its other rights under the Contract or further obligation to Contractor, the ordering Eligible Agency or Co-Op Buyer may, at its discretion, reject any materially defective invoice.
- 4.5.1 The ordering Eligible Agency or Co-Op Buyer shall notify Contractor within 5 (five) business days after receipt if it determines an invoice to be materially defective.
- 4.5.2 Invoices will be deemed automatically rejected upon delivery if they:
- (a) are sent to an incorrect address;
  - (b) do not reference the correct State contract number; or
  - (c) are payable to any Person other than the Contractor.
- 4.5.3 The ordering Eligible Agency or Co-Op Buyer will have no obligation to pay against a defective invoice unless and until Contractor has re-submitted it free of defects.
- 4.6 INVOICING FOR TASK ORDERS. For task order Services, invoices must include the following information as applicable to the relevant task order being invoiced against:
4. substantiation of hours worked using:
    - a. a detailed daily timesheet;
    - b. itemization to the task level; and
    - c. breakdown by service area (if the Contract covers more than one area) and Contract Amendment (if any apply);
  5. authorizations and receipts for all allowable reimbursable items being invoiced; and
  6. Contractor’s certification that the invoice has been examined and to the best of Contractor’s knowledge and belief the invoiced amounts are entitled, correct, and accurate as can be demonstrated by the contractually required books and records upon State’s demand.



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## 5.0 Payments

- 5.1 PAYMENT. The applicable Eligible Agency or Co-Op Buyer shall pay undisputed amounts due to Contractor within the time period specified in Article 4 of the Uniform Terms and Conditions
- 5.2 JOINT CHECKS OR DIRECT PAY. applicable Eligible Agency or Co-Op Buyer may, but is under no obligation to, pay by joint check or to pay directly to any Subcontractor or other creditor to whom any portion of Contractor’s requested payment is owed.
- 5.3 RECOVERY OF OVER-PAYMENT. If applicable Eligible Agency or Co-Op Buyer determines that an over-payment has been made to Contractor on any prior invoice, it shall inform Contractor of the amount and date of the over-payment and may deduct the over-paid amount from amounts then or thereafter due to Contractor.
- 5.4 PAYMENTS TO SUBCONTRACTORS. Contractor shall make payment of all undisputed amounts due to Subcontractors within thirty (30) days of receipt of funds from applicable Eligible Agency or Co-Op Buyer applicable to their services.
- 5.5 PURCHASING CARD. applicable Eligible Agency or Co-Op Buyer may pay invoices for some or all Orders using a purchasing card. Any and all fees related to payment using a Purchasing Card are the responsibility of Contractor. Unless otherwise stated in the Contract there will be no additional fees or increase in prices associated with this method of payment.
- 5.6 AUTOMATED CLEARING HOUSE. applicable Eligible Agency or Co-Op Buyer may pay invoices for some or all Orders through an Automated Clearing House (ACH). In order to receive payments in this manner from Eligible Agencies, Contractor must complete an ACH Vendor Authorization Form (form GAO-618) within 30 (thirty) days after the effective date of the Contract. The form is available online at:  
<https://gao.az.gov/afis/vendor-information>

## 6.0 Exhibits to the Pricing Document

- **Attachment 4 Pricing Sheet** .....

End of Section 2-B



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## SECTION 2-C: Special Terms and Conditions

*The Special Terms and Conditions modify the Uniform Terms and Conditions and its Appendices. It can modify them by replacing, deleting, appending to, or revising the text of an existing provision or by inserting a new paragraph into an existing article. No other document modifies or adds to the Uniform Terms and Conditions, except as may subsequently be otherwise and expressly agreed and incorporated by Contract Amendment.*

### 1.0 Definition of Terms

As used in the Contract, the terms listed below are defined as follows:

**1.1 Co-Op Buyer**

“Co-Op Buyer” means a member of the State Purchasing Cooperative that has entered into a “Cooperative Purchasing Agreement” with the Arizona Department of Administration State Procurement Office under A.R.S. § 41-2632. Unless there is an applicable Cooperative Purchasing Agreement in effect at the time, a State Purchasing Cooperative member cannot be a Co-Op Buyer. For reference, “Co-Op Buyer” is to be construed as encompassing “eligible procurement unit” under A.A.C. R2-7-101(23).

NOTE: Membership in the State Purchasing Cooperative is open to all Arizona political subdivisions, including cities, counties, school districts, and special districts. Membership is also available to non-profit organizations, other state governments, the federal government and tribal nations. For reference, “non-profit organizations” are defined in A.R.S. § 41-2631(4) as any nonprofit corporation as designated by the IRS under section 501(c)(3) through 501(c)(6) of the tax code.

**1.2 Eligible Agency**

If the Special Terms and Conditions indicates that the Contract is a “single-agency” contract, then “Eligible Agency” means the particular State of Arizona agency, university, commission, or board identified therein. If the Special Terms and Conditions indicates that the Contract is a “statewide” contract, then “Eligible Agency” means any State of Arizona department, agency, university, commission, or board.

### 2.0 Contract Interpretation

**2.1 New Equipment**

All Equipment, materials, parts and other components incorporated in the work or an item covered by this Contract shall be new, of the latest model and of the most suitable grade for the purpose intended. Any and all work under this contract shall be performed in a skilled and workmanlike manner.

**2.2 Serial Numbers**

The Contract is for Equipment on which the original Manufacturer’s serial number has not been altered in any way. Throughout the Contract term, the State reserves the right to reject any altered Equipment.

### 3.0 Contract Administration and Operation

**3.1 Term of Contract**

The term of the Contract will commence on the date indicated on the Acceptance and continue for one (1) years unless cancelled, terminated, or permissibly extended.

**3.2 Contract Extensions**

State may at its discretion extend the initial Contract term in increments of one or more months and do so one or more times, provided that, the maximum aggregate term of the Contract including extensions cannot exceed the maximum aggregate term of five (5) years.

**3.3 Statewide Contract Provisions**

The Contract is a “statewide” contract for multiple purchases, projects, or assignments, and can be purchased against by some or all Eligible Agencies and any Co-Op Buyers that elect to participate. Even if only one Eligible Agency needs or elects to purchase against the Contract, it is to be construed as being a “statewide” contract hereunder.



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The Contract is an indefinite delivery, indefinite quantity (ID/IQ) type of contract; it is to be construed as a "delivery order" sub-type of ID/IQ contract to the extent the Work is Materials, and a "task order" sub-type to the extent the Work is Services.

1. Contractor shall verify if an ordering entity is a bona fide Co-Op Buyer before selling Materials to or providing Services for them under the Contract. The current list of Co-Op Buyers is available on the State Procurement Office website:  
<https://spo.az.gov/procurement-services/cooperative-procurement/state-purchasing-cooperative>
1. Contractor shall sell to Co-Op Buyers at the same price and on the same lead times and other terms and conditions under which it sells to Eligible Agencies, with the sole exception of any legitimately additional costs for extraordinary shipping or delivery requirements if the Co-Op Buyer is having Materials delivered or installed or Services performed at locations not contemplated in the contracted pricing (e.g. delivery to a location outside Arizona).
2. Contractor shall pay State an administrative fee against all Contract sales to Co-Op Buyers, as provided for under A.R.S. § 41-2633. The fee rate is one (1%) percent. Failure to remit the administrative fees is a material breach of contract, and will entitle State to its remedies under Article 8 and its right to terminate for default under Article 9. Method of calculation, payment procedures, and other details are provided on the State Procurement Office website:  
<https://spo.az.gov/contractor-resources/statewide-contracts-administrative-fee>
3. Contractor shall submit to State a quarterly usage report documenting all Contract sales to both Eligible Agencies and Co-Op Buyers, itemized separately. Contractor shall further itemize divisions, groups or areas within a given Eligible Agency if they place Orders independently of each other. Failure to submit the report is a material breach of contract, and will entitle State to its remedies under Article 8 and its right to terminate for default under Article 9. Contractor shall submit the report using the forms and following the instructions on the State Procurement Office website:  
<https://spo.az.gov/contractor-resources/statewide-contracts-administrative-fee>
4. Contractor shall acknowledge each Order from Eligible Agencies within 1 (one) business day after receipt by either: (a) "approving" the Order electronically in ProcureAZ, which will indicate Contractor's unqualified acceptance of the Order as-issued; or (b) "rejecting" the Order electronically in ProcureAZ, with a concurrent explanation by email to relevant originator as to the reason for rejecting it. By way of reminder, the only grounds on which Contractor may reject or refuse an Order are those set out in subparagraph 3.14.3 [*Orders are Obligatory*]. Unless and until Contractor has approved the Order in ProcureAZ, it will have no effect under the Contract and will not oblige either State or Contractor. If the relevant Eligible Agency explicitly instructs at the time that a verbal acceptance is sufficient because of urgency or other unusual circumstances and Contractor duly gives its verbal acceptance, then Contractor will be deemed to have accepted the Order immediately upon commencing performance, provided that, Contractor must follow-up its verbal acceptance by accepting the Purchase Order electronically in ProcureAZ within 3 (three) business days. Contractor shall thereafter be barred from subsequently rejecting the Order in ProcureAZ and if it does so the rejection will be void.
5. Contractor shall acknowledge each Order from Co-Op Buyers in conformance with each buyer's instructions given at the time of ordering or in any supplemental participating agreement Contractor might have with them. Orders from Co-Op Buyers create no obligation on State's part, since they are entirely between the Co-Op Buyer and Contractor. That notwithstanding, Contractor's obligation under the Contract is to service Co-Op Buyers commercially as though they were with an Eligible Agency, and Contractor's refusal to do so would be a material breach of the Contract.



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Arizona Department of Administration  
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### 3.4 Multiple-Use Provisions

Eligible Agencies may issue Orders for Services in several forms, all of which become final and effective by a "Release Purchase Order" in ProcureAZ. Orders issued by Co-Op Buyers will be in whatever form the Co-Op Buyer normally uses. Regardless of origin, Orders must cite the State contract number to be valid. State may, at its discretion in each instance, determine the scope, schedule, and price for each Order in any of the following ways:

1. By choosing some or all of the Materials or Services items covered by the Contract for which a price is established in the Pricing Document, then preparing an Order using those prices (e.g., filling out an order form), and sending it to Contractor.
2. By instructing Contractor to provide a comprehensive proposal of item quantities, combinations, etc., or services hours, personnel, etc., for a defined scope using those established prices as a basis, then validating and negotiating the proposal with Contractor and issuing an Order if and when reaching agreement.
3. As described in (2) above but requesting the proposal from both Contractor and other vendors who are contracted within the applicable scope categories and locations, either sequentially or concurrently, then selecting the proposal or proposals combination that the most advantageous to State.
4. As described in (3) above but introducing ad-hoc commercial competition by making the selection and ordering conditional on obtaining more favorable prices than the contractually-established ones.

When evaluating the proposals under (3) and (4) above, State may select based on price (for example, a quoted number of hours times the contracted or improved rate plus a fixed amount for incidentals), by experience and qualifications (for example, having an office nearer the required work location), or whatever combination thereof it determines is most appropriate to the work in question.

### 3.5 Contractor Performance Reports

Program Management shall document Contractor performance, both exemplary and needing improvements where corrective action is needed or desired. Copies of corrective action reports will be forwarded to the State Procurement Office for review and necessary follow-up. The State Procurement Office may contact the Contractor upon receipt of the report and may request corrective action. The State Procurement Office shall discuss the Contractor's suggested corrective action plan with the Procurement Specialist for approval of the plan.

### 3.6 Access Constraints and Requirements

Contractor access to State facilities shall be properly authorized by State personnel, based on business need and **will be restricted to least possible privilege**. Upon approval of access privileges, the Contractor shall maintain strict adherence to all policies, standards, and procedures. Policies/Standards, ADOA/ASET Policies/Procedures, and Arizona Revised Statutes (A.R.S.) 28-447, 28-449, 28-450, 38-421, 13-2408, 13-2316, 41-770).

Failure of the Contractor, its agents or subcontractors to comply with policies, standards, and procedures including any person who commits an unlawful breach or harmful access (physical or virtual) will be subject to prosecution under all applicable State and/or Federal Laws.

Any and all recovery or reconstruction costs or other liabilities associated with an unlawful breach or harmful access shall be paid by the Contractor.

## 4.0 Costs and Payments

### 4.1 Purchase of Maintenance/Service Agreements

Maintenance Agreements and Maintenance Service Agreements shall be made available for purchase on new Equipment at any time during the ninety (90) day warranty period. The Contractor shall also allow the State to purchase the agreements up to nine (9) months after the ninety (90) day warranty period has expired (one (1) year after installation of the equipment) without incurring an update charge.

## 5.0 Contract Changes



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## 5.1 Non-Exclusive Contract

This contract has been awarded with the understanding and agreement that it is for the sole convenience of the State of Arizona. The State reserves the right to obtain like goods or services from another source when necessary. Off-contract purchase authorization(s) may be approved by the State Procurement Office. Approvals shall be at the exclusive discretion of the State and shall be final. Off-contract procurement shall be consistent with the Arizona Procurement Code.

## 6.0 Risk and Liability

### 6.1 Indemnification Clause

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless the State of Arizona, and its departments, agencies, boards, commissions, universities, and any jurisdiction or agency issuing permits for any work included in the project, and their respective directors, officers, officials, agents and employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, costs, losses, or expenses, (including reasonable attorney's fees), (hereinafter collectively referred to as "Claims") arising out of actual or alleged bodily injury or personal injury of any person (including death) or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Contractor or any of Contractor's directors, officers, agents, employees, volunteers or subcontractors. This indemnity includes any claim or amount arising or recovered under the Workers' Compensation Law or arising out of the failure of Contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by Contractor from and against any and all Claims. It is agreed that Contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. This indemnification will survive the termination of the above listed contract with the Contractor.

This indemnity shall not apply if the contractor or sub-contractor(s) is/are an agency, board, commission or university of the State of Arizona.

### 6.2 Non-Exclusive Contract

Contractor and subcontractors shall procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Contract, insurance against claims for injury to persons or damage to property arising from, or in connection with, the performance of the work hereunder by the Contractor, its agents, representatives, employees or subcontractors.

The Insurance Requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The State of Arizona in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that arise out of the performance of the work under this Contract by the Contractor, its agents, representatives, employees or subcontractors, and the Contractor is free to purchase additional insurance.

### 6.3 Minimum Scope and Limits of Insurance

Contractor shall provide coverage with limits of liability not less than those stated below.

#### Commercial General Liability (CGL) – Occurrence Form

Policy shall include bodily injury, property damage, and broad form contractual liability coverage.

- General Aggregate \$2,000,000
- Products – Completed Operations Aggregate \$1,000,000
- Personal and Advertising Injury \$1,000,000
- Damage to Rented Premises \$50,000
- Each Occurrence \$1,000,000



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The policy shall be endorsed, as required by this written agreement, to include the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor.

Policy shall contain a waiver of subrogation endorsement, as required by this written agreement, in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

### Business Automobile Liability

Bodily Injury and Property Damage for any owned, hired, and/or non-owned automobiles used in the performance of this Contract.

- Combined Single Limit (CSL)                      \$1,000,000

Policy shall be endorsed, as required by this written agreement, to include the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees as additional insureds with respect to liability arising out of the activities performed by, or on behalf of, the Contractor involving automobiles owned, hired and/or non-owned by the Contractor.

Policy shall contain a waiver of subrogation endorsement as required by this written agreement in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

### Workers' Compensation and Employers' Liability

- Workers' Compensation    Statutory
- Employers' Liability
  - o Each Accident                      \$1,000,000
  - o Disease – Each Employee        \$1,000,000
  - o Disease – Policy Limit            \$1,000,000

Policy shall contain a waiver of subrogation endorsement, as required by this written agreement, in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

This requirement shall not apply to each Contractor or subcontractor that is exempt under A.R.S. § 23-901, and when such Contractor or subcontractor executes the appropriate waiver form (Sole Proprietor or Independent Contractor).

### Technology Errors & Omissions Insurance

- Each Claim                      \$2,000,000
- Annual Aggregate    \$2,000,000

Such insurance shall cover any, and all errors, omissions, or negligent acts in the delivery of products, services, and/or licensed programs under this contract.



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Coverage shall include copyright infringement, infringement of trade dress, domain name, title or slogan.

In the event that the Tech E&O insurance required by this Contract is written on a claims-made basis, Contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract and, either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years, beginning at the time work under this Contract is completed.

#### 6.4 Additional Requirements

The policies shall include, or be endorsed to include, as required by this written agreement, the following provisions:

The Contractor's policies, as applicable, shall stipulate that the insurance afforded the Contractor shall be primary and that any insurance carried by the Department, its agents, officials, employees or the State of Arizona shall be excess and not contributory insurance, as provided by A.R.S. § 41-621 (E).

Insurance provided by the Contractor shall not limit the Contractor's liability assumed under the indemnification provisions of this Contract.

#### 6.5 Notice of Cancellation

Applicable to all insurance policies required within the Insurance Requirements of this Contract, Contractor's insurance shall not be permitted to expire, be suspended, be canceled, or be materially changed for any reason without thirty (30) days prior written notice to the State of Arizona. Within two (2) business days of receipt, Contractor must provide notice to the State of Arizona if they receive notice of a policy that has been or will be suspended, canceled, materially changed for any reason, has expired, or will be expiring. Such notice shall be sent directly to the Department and shall be mailed, emailed, hand delivered or sent by facsimile transmission to (State Representative's Name, Address & Fax Number).

#### 6.6 Acceptability of Insurers

Contractor's insurance shall be placed with companies licensed in the State of Arizona or hold approved non-admitted status on the Arizona Department of Insurance List of Qualified Unauthorized Insurers. Insurers shall have an "A.M. Best" rating of not less than A- VII. The State of Arizona in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

#### 6.7 Verification of Coverage

Contractor shall furnish the State of Arizona with certificates of insurance (valid ACORD form or equivalent approved by the State of Arizona) evidencing that Contractor has the insurance as required by this Contract. An authorized representative of the insurer shall sign the certificates.

All such certificates of insurance and policy endorsements must be received by the State before work commences. The State's receipt of any certificates of insurance or policy endorsements that do not comply with this written agreement shall not waive or otherwise affect the requirements of this agreement.

Each insurance policy required by this Contract must be in effect at, or prior to, commencement of work under this Contract. Failure to maintain the insurance policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract.

All certificates required by this Contract shall be sent directly to the Department. The State of Arizona project/contract number and project description shall be noted on the certificate of insurance. The State of Arizona reserves the right to require complete copies of all insurance policies required by this Contract at any time.



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## 6.8 Subcontractors

Contractor's certificate(s) shall include all subcontractors as insureds under its policies or Contractor shall be responsible for ensuring and/or verifying that all subcontractors have valid and collectable insurance as evidenced by the certificates of insurance and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum Insurance Requirements identified above. The Department reserves the right to require, at any time throughout the life of this contract, proof from the Contractor that its subcontractors have the required coverage.

## 6.9 Approval and Modifications

The Contracting Agency, in consultation with State Risk, reserves the right to review or make modifications to the insurance limits, required coverages, or endorsements throughout the life of this contract, as deemed necessary. Such action will not require a formal Contract amendment but may be made by administrative action

## 6.10 Exceptions

In the event the Contractor or subcontractor(s) is/are a public entity, then the Insurance Requirements shall not apply. Such public entity shall provide a certificate of self-insurance. If the Contractor or subcontractor(s) is/are a State of Arizona agency, board, commission, or university, none of the above shall apply.

## 7.0 Warranties

No modifications to uniform terms and conditions section.

## 8.0 State's Contractual Remedies

No modifications to uniform terms and conditions section

## 9.0 Contract Termination

No modifications to uniform terms and conditions section

## 10.0 Contract Claims

No modifications to uniform terms and conditions section.

## 11.0 General Provisions for Commodities

### 11.1 Applicability

Article 11 applies to the extent the Work is or includes Materials.

### 11.2 Off-Contract Materials

Contractor shall ensure that the design and/or procedures for the Materials ordering method prevents Orders for off-contract items or excluded items. Notwithstanding that State might have its own internal administrative rules regarding off-contract or excluded item ordering, and endeavors to prevent such orders from occurring, Contractor is responsible for not accepting any such Orders; State may, at its discretion, return any such items under subparagraph 11.17 or cancel any such Order under subparagraph 11.18, in either case being without obligation and at Contractor's expense. As used above, "off-contract item" refers to any product not included in the scope of the Contract and for which no price or compensation has been established contractually, and "excluded item" refers to any product expressly stated in the Contract as being excluded from the Contract.

### 11.3 Compensation for Late Deliveries

Contractor shall have clear, published policies in place regarding late delivery, order cancelation, discounts, or rebates given to compensate for late deliveries, etc., and make them readily available to those Eligible Agencies that are likely to need them.



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- 11.4 Indicate Shipping Costs on Order** If shipping cost is additional to the contracted price or rate for an item, the Contractor shall identify the shipping cost it intends to add for shipping, as a separate line item on the price quote provided to ASDB. The Contractor shall also provide the required substantiating documentation for the shipping cost with the price quote. If ASDB approves paying a shipping cost, ASDB will list the agreed upon shipping cost as a line item on their Order, when it is issued. If there is no additional shipping cost, the Contractor shall indicate on the price quote that shipping is included in the Order price.
- 11.5 Current Products** Contractor shall keep all products being offered under the Contract: (a) in current and ongoing production; (b) in its advertised product lines; (c) as models or types that are actively functioning in other paying customer environments; and (d) in conformance to the requirements of the Contract.
- 11.6 Maintain Comprehensive Selection** Contractor shall provide at all times the comprehensive selection of products for which a price is established in the Pricing Document.
- 11.7 Additional Products** State, at its discretion, may modify the scope of the Contract by Contract Amendment to include additional products or product categories so long as they are within the general scope of the ones originally covered by the Contract. Once the Contract Amendment has been fully executed, Contractor shall then update all applicable catalogs and price lists and make them available to all affected entities at no additional cost. Either party may make the request to add products to the Contract; regardless of who makes the request, the parties shall negotiate in good faith a fair price for any additional products, but State may elect not to add some or all of the products in question if no agreement is reached on pricing in a timely manner. Contractor’s request or proposal in response to State’s request must include: (a) documentation demonstrating that the additional products meet or exceed the specifications for the original products while remaining in the same product groups as the original ones; and (b) documentation demonstrating that the proposed price for the additional products is both fair and reasonable and at the same level of discount relative to market price as were the original ones. Demonstration of (b) typically requires showing how prices at which sales are currently or were last made to a significant number of buyers compare to the prices or discounts (as applicable) being proposed for the additional products.
- 11.8 Discontinued Products** If a product or groups of products covered by the Contract are discontinued by the manufacturer, Contractor shall notify State within 5 (five) business days after receiving the manufacturer’s notification. State, at its discretion, will either allow Contractor to provide substitutes for the discontinued products or delete the products from the scope of the Contract, both of which will be accomplished by Contract Amendment. Contractor shall then update all applicable catalogs and price lists and make them available to all affected entities at no additional cost. The parties shall negotiate in good faith a fair price for any substitute product, but State may elect to delete the products from the scope of the Contract if no agreement is reached on substitute pricing in a timely manner. When notifying State of the discontinuance, Contractor shall provide: (a) manufacturer’s announcement or documentation stating that the products have been discontinued, with identification by model/part number; (b) documentation demonstrating that the substitute products meet or exceed the specifications for the discontinued products while remaining in the same product groups as were the discontinued ones; and (c) documentation demonstrating that the proposed price for the substitute products is both fair and reasonable and at the same level of discount relative to market price as were the discontinued ones (with demonstration being as described in subparagraph 11.7).
- 11.9 Forced Substitutions** Forced substitutions will not be permitted; Contractor shall obtain State’s prior written consent before making any discretionary substitution for any product covered by the Contract.



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## 11.10 Recalls

In the event of a recall notice, technical service bulletin, or other important notification affecting a product offered under the Contract (collectively, "recalls" hereinafter), Contractor shall send timely notice to State for each applicable Order referencing the affected Order and product. Notwithstanding whatever protection Contractor might have under A.R.S. § 12-684 with respect to a manufacturer, Contractor shall handle recalls entirely and without obligation on State's part, other than to permit removal of installed products, retrieval of stored products, etc., as necessary to implement the recall.

## 11.11 Delivery

11.11.1 PRICING. Unless stated otherwise in the Pricing Document, all Materials prices set forth therein are FCA (seller's dock) Incoterms®2010, with "seller's dock" meaning the last place of manufacturing, assembly, integration, final packing, or warehousing before departure to designated point of delivery to State. For reference, the foregoing is to be construed as equivalent to "F.O.B. Origin, Contractor's Facility" under [FAR 52.247-30](#).

11.11.2 LIABILITY. Unless stated otherwise in the Pricing Document or an Order, Contractor's liability for all Materials is DDP (State-designated receiving point per Order) Incoterms®2010, but with unloading at destination included. For reference, the foregoing is to be construed as equivalent to "F.O.B. Destination, Within Consignee's Premises" under [FAR 52.247-35](#).

11.11.3 PAYMENT. Unless stated otherwise in the Pricing Document or an Order, State shall reimburse Contractor the costs of the difference between DDP (State-designated receiving point per Order) and FCA (seller's dock) with no mark-up, which Contractor shall itemize and invoice separately.

## 11.12 Delivery Time

Unless stated otherwise in the Pricing Document generally or in the applicable Order particularly, Contractor shall make delivery of the Equipment, start-up supplies and consumables within 2 (two) weeks or earlier after receiving each Order. **Start-up supplies shall be enough to last through the initial 90-day warranty period.** For orders that include five (5) or more devices, delivery of the equipment shall be within thirty (30) days.

## 11.13 Delivery Locations

Contractor shall offer deliveries to every location served under the scope of the Contract, specifically:

- 11.13.1 If the Contract is for a single State agency in a single area, then Contractor shall deliver to any agency location in that area;
- 11.13.2 if the Contract is for a single State agency in all its locations, then Contractor shall deliver to any of that agency's location in Arizona;
- 11.13.3 if the Contract is for statewide use but excludes certain areas, then Contractor shall deliver to any Eligible Agency location that is not in the excluded areas; and
- 11.13.4 if the Contract is for unrestricted statewide use, then:
- 11.13.5 Contractor shall deliver to any Eligible Agency anywhere in Arizona;
- 11.13.6 if the Pricing Document indicates defined delivery areas and prices, those always apply unless the Order expressly states otherwise and Contractor accepts it.

## 11.14 Conditions at Delivery Location

Contractor shall verify receiving hours and conditions (i.e. height/weight restrictions, access control, etc.) with the relevant purchaser for the receiving site before scheduling or making a delivery. State will neither allow extra charges for wait time, comebacks, or the like nor excuse late delivery if Contractor has failed to make the verification or comply with the applicable conditions. Contractor shall make each delivery to the specific location indicated in the Order, which Contractor acknowledges might be inside an industrial building, institutional building, low-rise office building, or high-rise office building instead of a normal receiving dock. Contractor might be required to make deliveries to locations inside a secured perimeter at certain institutional facilities such as prisons where prior clearances are required for each delivery and driver individually. Contractor shall contact each such facility directly to confirm its most-current security clearance procedures, allowable hours



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for deliveries, visitor dress code, and other applicable rules. State will neither allow extra charges for wait time, comebacks, or the like nor excuse late delivery if Contractor has failed to make the confirmation or comply with the applicable conditions.

Contractor shall at all times keep the premises and the areas in which the work is performed free from accumulation of waste materials or rubbish as well as tools, installation equipment, machinery and surplus materials during the installation process. The Contractor shall remove from the installation site all crates, wrappings and other flammable waste materials.

**11.15 Secure Location Deliveries**

The Contractor will be responsible for contacting the Secure Location, i.e., Arizona Department of Corrections, for security clearance, hours of operation, dress code, and other related rules when scheduling a delivery or service call. Lack of familiarity with the locations or policies will not relieve a Contractor of their responsibilities in fulfillment of the delivery, installation, maintenance/service and all other contractual requirements.

**11.16 Materials Acceptance**

State has the right to make acceptance of Materials subject to a complete inspection on delivery and installation, if installation is Contractor's responsibility. State may apply as acceptance criteria conformity to the Contract, workmanship and quality, correctness of constituent materials, and any other matter for which the Contract or applicable laws state a requirement, whether stated directly or by reference to another document, standard, reference specification, etc. Contractor shall remove any rejected Materials from the delivery location, or from any immediate environs to which it might have been reasonably necessary to move it, carry it off the delivery premises, and subsequently deliver an equal number or quantity of conforming items. State will not owe Contractor any payment for rejected Materials, and State may, at its discretion, withhold or make partial payment for any rejected Materials that have been returned to Contractor in those instances where State has agreed to permit repair instead of demanding replacement.

**11.17 Correcting Defects**

Contractor shall, at no additional cost and without entitlement to extension of any delivery deadline or specified time for performance, remove or exchange and replace any defective or non-conforming delivered or installed Materials.

11.17.1 Contractor shall be solely responsible for the cost of any associated cutting and patching, temporary protection measures, packing and crating, hoisting and loading, transportation, unpacking, inspection, repacking, reshipping, and reinstallation if installation is within the scope of the Contract.

11.17.2 If Contractor fails to do so in a timely manner, State will be entitled to exercise its remedies under paragraph 8.5 [Right of Offset] of the Uniform Terms and Conditions.

11.17.3 Whether State will permit Contractor to repair in place or demands that Contractor remove and replace is at State's discretion in each instance, provided that, State shall not apply that discretion punitively if repair in place is practicable and doing so would not create safety hazards, put property at risk, unreasonably interfere with operations, create public nuisance, or give rise to any other reasonable concern on State's part.

**11.18 Returns**

State may, at its discretion, return for full credit and with no restocking charges any delivered Materials unused in the original packaging, including any instruction manuals or other incidental item that accompanied the original shipment, within 30 (thirty) days after receipt. If State elects to return delivered Materials, then State shall pay all freight, delivery, and transit insurance costs to return the products to the place from which Contractor shipped them, provided that, if State returns delivered Materials because they are defective or non-conforming or for any other reason having to do with Contractor fault or error, then State will not be responsible for paying freight, delivery, or transit insurance costs to return the products and may, at its discretion, either have those billed directly to



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Contractor or offset them under paragraph 8.5 [*Right of Offset*] of the Uniform Terms and Conditions.

**11.19 Relocation of Equipment**

The State may request the relocation of Equipment, either within a Facility or to another designated Entity. Upon notification by the State, the Contractor shall prepare the Equipment for transport, pick-up, delivery, and provide all labor for the installation of the relocated Equipment. The Contractor may charge a flat fee for this service.

**11.20 Order Cancellation**

State may cancel Orders within a reasonable period after issuance and at its discretion. The same method as that used for ordering will be used for cancellation. If State cancels an Order, then State shall:

- 11.20.1 pay Contractor for any portion of the Materials and Services from that Order that have been properly delivered or performed as of the cancellation effective date plus 1 (one) additional business day;
- 11.20.2 reimburse Contractor for:
- 11.20.3 its actual, documented costs incurred in fulfilling the Order up to the cancellation effective date plus 1 (one) additional business day; and
- 11.20.4 the cost of any obligations it incurred as of the cancellation effective date plus 1 (one) additional business day that demonstrably cannot be canceled, or that have pre-established cancellation penalties specified in the relevant Subcontracts, to the extent the penalties are reasonable and customary for the work in question; and
- 11.20.5 contractor shall not charge or be entitled to charge State for any new costs it incurs after receiving the cancelation notice plus 1 (one) business day or for any lost profits or opportunity.

By way of reminder, State is not liable for any products that were produced, shipped, or delivered or any services that were performed before Contractor had acknowledged the corresponding Order.

**11.21 Cancellation of Rental Agreements**

Notwithstanding the provisions of Availability of Funds for the Current State Fiscal Year and Availability of Funds for the Next State Fiscal Funding Year, the State will provide thirty (30) day written notice of cancellation. The cancellation notice from the State shall include the following:

- 11.21.1 Equipment location referencing, State Name, Building Location and Room Number;
- 11.21.2 Equipment Model and Serial Number;
- 11.21.3 Meter Reading; and
- 11.21.4 Date the Equipment will be available for removal.

**11.22 Product Safety**

Materials as-shipped must comply with applicable safety regulations and standards. Unless expressly stated otherwise in the Scope of Work, State is not responsible for making any Materials safe or compliant following acceptance and is relying exclusively on Contractor to deliver only products that are already safe and compliant.

**11.23 Hazardous Materials**

Contractor shall timely provide State with any "Safety Data Sheets" (SDS) and any other hazard communication documentation required under the US Department of Labor's Occupational Safety and Health Administration (OSHA) "Hazard Communication Standard" (often referred to as the "HazCom 2012 Final Rule") that is reasonably necessary for State to comply with regulations when it or its other contractors install, handle, operate, repair, maintain or remove any Materials. Note that, in the past, those documents might have been referred to as "Material Safety Data Sheets" or "Product Safety Data Sheets", but State (and this Contract) use only the more up-to-date "SDS" reference. Contractor shall ensure that all its relevant personnel understand the nature of and hazards associated with, to the extent it they are Contractor's responsibility under the Contract, the design, shipping, handling, delivery, installation, repair and maintenance of any portion of the



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Work that is, contains or will become upon use a hazardous material, with “hazardous material” being any material or substance that is: (1) identified now or in the future as being hazardous, toxic or dangerous under applicable laws; or (2) subject to statutory or regulatory requirement governing special handling, disposal or cleanup.

- 11.24 Loaner Equipment** Equipment including all hardware accessories furnished under this Contract shall be capable of continuous operation. In those instances where the Equipment or any accessories become inoperable for a period of seventy-two (72) consecutive working hours, the Contractor shall, at the State’s option, provide a loaner copier or accessory of equal capability at no additional cost. Loaner Equipment is defined as Equipment that will be installed on a temporary basis while the malfunctioning Equipment is repaired or until Equipment is replaced and installed. All Loaner Equipment will be replaced within thirty (3) days with the original equipment or a new replacement.
- 11.25 Trail or Demonstration Equipment** Trial or Demonstration Equipment may be provided under this Contract. Any trail or demonstration period shall not exceed thirty (30) calendar days. No trial or demonstration machine may be converted to a lease, rental or purchase, unless the Equipment was new, prior to the current placement as a trail or demonstration machine. Trail or Demonstration Equipment installation, set-up, and removal shall be provided by the Contractor at no cost, and shall include all initial set-up, supplies, except paper and staples.
- 11.26 EPA Energy Star Products** MB 2324, Chapter 114, A.R.S. 34-451 requires that the State of Arizona purchase Energy Star products or products certified by the Federal Energy Management Program as energy efficient for all product classifications available. If an Energy Star product or certified product is available, documentation of the Energy Star status or certification shall be submitted with the Equipment.
- 11.27 Trade-ins** Trade-Ins are encouraged for all State Agencies, Boards and Commissions. Trade-ins shall be in accordance with the rules established by Surplus Property. Reference the Surplus Property Reference Manual for procedures to be followed. Reference is found at <https://doa.az.gov/state-surplus-property-reference-manual>. Cooperative Members shall follow rules that are established by each of their respective governances.

## 12.0 General Provisions for Services (Labor, Time and/or Effort)

- 12.1 Applicability** Article 12 applies to the extent the Work is or includes Services.
- 12.2 Comprehensive Services Offering** Contractor shall provide the comprehensive range of services for which a price is established in the Pricing Document for ordering by Eligible Agencies, and Co-Op Buyers if co-op buying applies.
- 12.3 Additional Services** State at its discretion may modify the scope of the Contract by Contract Amendment to include additional services or service categories that are within the general scope of the ones originally covered by the Contract if it determines that doing so is in its best interest. Once the Contract Amendment is fully executed, Contractor shall then update all applicable price lists and make them available to all affected entities at no additional cost. Either party may make the request to add services to the Contract; regardless of who makes the request, the parties shall negotiate in good faith a fair price for any additional services, but State may elect not to add some or all of the services in question if no agreement is reached on pricing in a timely manner. Contractor’s request or proposal in response to State’s request must include documentation demonstrating that the proposed price for the additional services is both fair and reasonable and comparable to the original ones.
- 12.4 Off-Contract Services** Contractor shall ensure that the design and/or procedures for the Services ordering method prevents Orders for off-contract or excluded services. Notwithstanding that State might have its own internal administrative rules regarding off contract or excluded service ordering, and endeavors to prevent such orders from occurring, Contractor is responsible for not accepting any



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such Orders. State may, at its discretion, cancel any such Order without obligation. As used above, "off-contract service" refers to any service not included in the scope of the Contract and for which no price or compensation has been established contractually, and "excluded service" refers to any service expressly excluded from the scope of the Contract.

**12.5 Employees of the Contractor**

All employees of the Contractor employed in the performance of work under the Contract shall be considered employees of the Contractor at all times, and not employees of the State. The Contractor shall comply with the Social Security Act, Workman's Compensation laws and Unemployment laws of the State of Arizona and all State, local and Federal legislation relevant to the Contractor's business.

**12.6 Removal of Personnel**

Notwithstanding that Contractor is in every circumstance responsible for hiring, assigning, directing, managing, training, disciplining, and rewarding its personnel, State may at its discretion and without the obligation to demonstrate cause instruct Contractor to remove any of its personnel from State's facilities or from further assignment under the Contract. In such cases, Contractor shall promptly replace them with other personnel having equivalent qualifications, experience, and capabilities.

**12.7 Transitions**

During commencement, Contractor shall attend transition meetings with any outgoing vendors to coordinate and ease the transition so that the effect on State's operations is kept to a minimum. State may elect to have outgoing vendors complete some or all of their work or orders in progress to ease the transition as is safest and most efficient in each instance, even if that scope is covered under the Contract. Conversely, State anticipates having a continued need for the same materials and services upon expiration or earlier termination of the Contract. Accordingly, Contractor shall work closely with any new (incoming) vendor and State to ensure as smooth and complete a transfer as is practicable. State's representative shall coordinate all transition activities and facilitate joint development of a comprehensive transition plan by both Contractor and the incoming vendor. As with the incoming transition. State may permit Contractor (outgoing) to complete work or orders in progress to ease the transition as is safest and most efficient in each instance.

**12.8 Accuracy of Work**

Contractor is responsible for the accuracy of the Services, and shall promptly make all necessary revisions or corrections resulting from errors and omissions on its part without additional compensation. Acceptance by State will not relieve Contractor of responsibility for correction of any errors discovered subsequently or necessary clarification of any ambiguities.

**12.9 Requirements at Services Location**

Contractor personnel shall perform their assigned portions of the Services at the specific location indicated in the Order (if applicable). Contractor acknowledges that the location might be inside an industrial building, institutional building, or one of various office types and classes. Additionally, if performing the Services requires Contractor personnel to work inside a secured perimeter at certain institutional facilities such as prisons where prior clearances are required, Contractor shall contact the facility directly to confirm its most-current security clearance procedures, allowable hours for work, visitor dress code, and other applicable rules. State will neither allow extra charges for wait time, comebacks, or the like nor excuse late performance if Contractor has failed to make the confirmation or comply with the applicable conditions.

**12.10 Services Acceptance**

State has the right to make acceptance of Services subject to acceptance criteria. State may apply as acceptance criteria conformity to the Contract, accuracy, completeness, or other indicators of quality or other matter for which the Contract or law states a requirement, whether stated directly or by reference to another document, standard, reference specification, etc. State will not owe Contractor any payment for un-accepted Services; and State may, at its discretion, withhold or make partial payment for any rejected Services if Contractor is still in the process of re-performing or otherwise curing the grounds for State's rejection.

**12.11 Corrective Action Required**

Notwithstanding any other guarantees, general warranties, or particular warranties Contractor has given under the Contract, if Contractor fails to perform any material portion of the Services,



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including failing to complete any contractual deliverable, or if its performance fails to meet agreed-upon service levels or service standards set out in or referred to in the Contract, then Contractor shall perform a root-cause analysis to identify the source of the failure and use all commercially reasonable efforts to correct the failure and meet the Contract requirements as promptly as is practicable.

- 12.11.1 Contractor shall provide to State a report detailing the identified cause and setting out its detailed corrective action plan promptly after the date the failure occurred (or the date when the failure first became apparent, if it was not apparent immediately after occurrence).
- 12.11.2 State may demand to review and approve Contractor’s analysis and plans, and Contractor shall make any corrections State instructs and adopt State’s recommendations so far as is commercially practicable, provided that State may insist on any measures it determines within reason to be necessary for safety or protecting property and the environment.
- 12.11.3 Contractor shall take the necessary action to avoid any like failure in the future, if doing so is appropriate and practicable under the circumstances.

<b>12.12 Service Hours</b>	Scheduled/Preventative Maintenance or Emergency/Corrective Maintenance shall be performed during normal working hours, 8:00a.m. through 5:00 P.M. MST, Monday through Friday, except for State observed holidays.
<b>12.13 Emergency/After Hours Service Calls</b>	The Contractor shall make services available on an emergency basis (unscheduled/corrective) during normal business hours, as well as after normal working hours and during State observed holidays. Emergency or After hours Service Calls may be provided at a separate service call rate per hour. Either categorization service rate shall not charge for parts and supplies, covered under an established Maintenance/Service.
<b>12.14 Scheduled Preventative Maintenance</b>	<p>Scheduled/Preventative Maintenance shall be based on the specific needs of the individual machines and in accordance with the Manufacturer’s recommendation for optimum equipment performance. The Contractor shall schedule regular preventive maintenance services by appointment with thirty (30) days advanced notice, or by establishment of a standard schedule. Scheduled/Preventative Maintenance is not considered as downtime. These calls shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>12.14.1 Routine Cleaning;</li> <li>12.14.2 Lubrication;</li> <li>12.14.3 Any Necessary Adjustments; and</li> <li>12.14.4 Replacement of unserviceable parts.</li> </ul>
<b>12.15 On-Site Response Times for Service Calls</b>	<p>On-site response times shall be as follows:</p> <ul style="list-style-type: none"> <li>12.15.1 Urban – On-site response shall not exceed four (4) hours;</li> <li>12.15.2 Rural – On-site response shall not exceed six (6) hours. Service Technician shall provide a telephone call, or e-mail to the Location within two (2) hours of initial service call to the Contractor; and</li> <li>12.15.3 Remote – On-site response shall not exceed eight (8) hours. Service Technician shall provide a call, or e-mail to the location within two (2) hours of the initial service call to the Contractor.</li> </ul> <p>Service calls to the Contractor after 3:00 p.p. MST, shall be serviced the next business day. The Service Technician shall report to the services site, no later than 9:00 a.m. MST, or at a time expressly agreed upon by the State.</p>



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**12.16 Availability of Repair Parts**

The Contractor shall guarantee the availability of repair parts for a minimum of five (5) years subsequent to the acceptance of the Equipment. All branded Equipment components, spare parts, application software, and ancillary equipment purchased and supplied, shall be OEM components. Used and remanufactured components shall not be provided. The Contractor shall ensure that these items are operable and installed in accordance with Manufacturer’s specifications.

## 13.0 Data and Information Handling

**13.1 Applicability**

Article 13 applies to the extent the Work includes handling of any (1) State’s proprietary and sensitive data or (2) confidential or access-restricted information obtained from State or from others at State’s behest.

**13.2 Data Protection and Confidentiality of Information**

Contractor warrants that it will establish and maintain procedures and controls acceptable to State for ensuring that State’s proprietary and sensitive data is protected from unauthorized access and information obtained from State or others in performance of its contractual duties is not mishandled, misused, or inappropriately released or disclosed. For purposes of this paragraph, all data created by Contractor in any way related to the Contract, provided to Contractor by State, or prepared by others for State are proprietary to State, and all information by those same avenues is State’s confidential information. To comply with the foregoing warrant:

1. Contractor shall: (a) notify State immediately of any unauthorized access or inappropriate disclosures, whether stemming from an external security breach, internal breach, system failure, or procedural lapse; (b) cooperate with State to identify the source or cause of and respond to each unauthorized access or inappropriate disclosure; and (c) notify State promptly of any security threat that could result in unauthorized access or inappropriate disclosures; and
2. Contractor shall not: (a) release any such data or allow it to be released or divulge any such information to anyone other than its employees or officers as needed for each person’s individual performance of his or her duties under the Contract, unless State has agreed otherwise in advance and in writing; or (b) respond to any requests it receives from a third party for such data or information, and instead route all such requests to State’s designated representative.

**13.3 Personally Identifiable Information.**

Without limiting the generality of paragraph 13.2, Contractor warrants that it will protect any personally identifiable information (“PII”) belonging to State’s employees’ or other contractors or members of the general public that it receives from State or otherwise acquires in its performance under the Contract.

For purposes of this paragraph:

1. PII has the meaning given in the [federal] Office of Management and Budget (OMB) *Memorandum M-07-16 Safeguarding Against and Responding to the Breach of Personally Identifiable Information*; and
2. “protect” means taking measures to safeguard personally identifiable information and prevent its breach that are functionally equivalent to those called for in that OMB memorandum and elaborated on in the [federal] General Services Administration (GSA) *Directive CIO P 2180.1 GSA Rules of Behavior for Handling Personally Identifiable Information*.

NOTE (1): For convenience of reference only, the OMB memorandum is available at:

<https://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2007/m07-16.pdf>

NOTE (2): For convenience of reference only, the GSA directive is available at:

<http://www.gsa.gov/portal/directive/d0/content/658222>



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### 13.4 Protected Health Information

Contractor warrants that, to the extent performance under the Contract involves individually identifiable health information (referred to hereinafter as protected health information (“PHI”) and electronic PHI (“ePHI”) as defined in the Privacy Rule referred to below), it:

1. is familiar with and will comply with the applicable aspects of the following collective regulatory requirements regarding patient information privacy protection: (a) the “Privacy Rule” in CFR 45 Part 160 and Part 164 pursuant to the Health Insurance Portability and Accountability Act (“HIPAA”) of 1996; (b) Arizona laws, rules, and regulations applicable to PHI/ePHI that are not preempted by CFR 45-160(B) or the Employee Retirement Income Security Act of 1974 (“ERISA”) as amended; and (c) State’s current and published PHI/ePHI privacy and security policies and procedures;
2. will cooperate with State in the course of performing under the Contract so that both State and Contractor stay in compliance with the requirements in (1) above; and
3. will sign any documents that are reasonably necessary to keep both State and Contractor in compliance with the requirements in (1) above, in particular “Business Associate Agreements” in accordance with the Privacy Rule.

NOTE: For convenience of reference only, the Privacy Rule is available at:

<http://www.hhs.gov/hipaa/for-professionals/privacy/index.html>

## 14.0 Information Technology Work

### 14.1 Applicability

Article 14 applies to any Invitation for Bids, Request for Proposals, or Request for Quotations for "Information Technology," as defined in A.R.S. § 41-3501(6) 6: “. . . computerized and auxiliary automated information processing, telecommunications and related technology, including hardware, software, vendor support and related services, equipment and projects” if and to the extent that the Work is or includes Information Technology.

### 14.2 Background Checks

Each of Contractor’s personnel who is an applicant for an information technology position must undergo the security clearance and background check procedure, which includes fingerprinting, as required by A.R.S § 41-710. Contractor shall obtain and pay for the security clearance and background check. Contractor personnel who will have administrator privileges on a State network must additionally provide identify and address verification and undergo State-specified training for unescorted access, confidentiality, privacy, and data security.

### 14.3 Information Access

- 14.3.1 SYSTEM MEASURES. Contractor shall employ appropriate system management and maintenance, fraud prevention and detection, and encryption application and tools to any systems or networks containing or transmitting State’s proprietary data or confidential information.
- 14.3.2 INDIVIDUAL MEASURES. Contractor personnel shall comply with applicable State policies and procedures regarding data access, privacy, and security, including prohibitions on remote access and obtaining and maintaining access IDs and passwords. Contractor is responsible to State for ensuring that any State access IDs and passwords are used only by the person to whom they were issued. Contractor shall ensure that personnel are only provided the minimum only such level of access necessary to perform his or duties. Contractor shall on request provide a current register of the access IDs and passwords and corresponding access levels currently assigned to its personnel.
- 14.3.3 ACCESS CONTROL. Contractor is responsible to State for ensuring that hardware, software, data, information, and that has been provided by State or belongs to or is in the custody of State and is accessed or accessible by Contractor personnel is only used in connection with carrying out the Work, and is never commercially exploited in any manner whatsoever not expressly permitted under the Contract. State may restrict access by Contractor personnel, or instruct Contractor to restrict access their access, if in its determination the requirements of this subparagraph are not being met.



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## 14.4 Pass-Through Indemnity

14.4.1 INDEMNITY FROM THIRD PARTY. For computer hardware or software included in the Work as discrete units that were manufactured or developed solely by a third party, Contractor may satisfy its indemnification obligations under the Contract by, to the extent permissible by law, passing through to State such indemnity as it receives from the third-party source (each a "Pass-Through Indemnity") and cooperating with State in enforcing that indemnity. If the third party fails to honor its Pass-Through Indemnity, or if a Pass-Through Indemnity is insufficient to indemnify State Indemnitees to the extent and degree Contractor is required to do by the Uniform Terms and Conditions, then Contractor shall indemnify, defend and hold harmless State Indemnitees to the extent the Pass-Through Indemnity does not.

14.4.2 NOTIFY OF CLAIMS. State shall notify Contractor promptly of any claim to which a Pass-Through Indemnity might apply. Contractor, with reasonable consultation from State, shall control of the defense of any action on any claim to which a Pass-Through Indemnity applies, including negotiations for settlement or compromise, provided that:

- (a) State reserves the right to elect to participate in the action at its own expense;
- (b) State reserves the right to approve or reject any settlement or compromise on reasonable grounds and if done so timely; and
- (c) State shall in any case cooperate in the defense and any related settlement negotiations.

## 14.5 Systems and Controls

In consideration for State having agreed to permit Pass-Through Indemnities in lieu of direct indemnity, Contractor agrees to establish and keep in place systems and controls appropriate to ensure that State funds under this Contract are not knowingly used for the acquisition, operation, or maintenance of Materials or Services in violation of intellectual property laws or a third party's intellectual property rights.

## 14.6 Redress of Infringement.

14.6.1 REPLACE, LICENSE, OR MODIFY. If Contractor becomes aware that any Materials or Services infringe, or are likely to be infringing on, any third party's intellectual property rights, then Contractor shall at its sole cost and expense and in consultation with State either:

- (a) replace any infringing items with non-infringing ones;
- (b) obtain for State the right to continue using the infringing items; or
- (c) modify the infringing item so that they become non-infringing, so long as they continue to function as specified following the modification.

14.6.2 CANCELLATION OPTION. In every case under 14.6.1, if none of those options can reasonably be accomplished, or if the continued use of the infringing items is impracticable, State may cancel the relevant Order or terminate the Contract and Contractor shall take back the infringing items. If State does cancel the Order or terminate the Contract, Contractor shall refund to State:

- (a) for any software created for State under the Contract, the amount State paid to Contractor for creating it;
- (b) for all other Materials, the net book value of the product provided according to generally accepted accounting principles; and
- (c) for Services, the amount paid by State or an amount equal to 12 (twelve) months of charges, whichever is less.

14.6.3 EXCEPTIONS. Contractor will not be liable for any claim of infringement based solely on any of the following by a State Indemnitee:

- (a) modification or use of Materials other than as contemplated by the Contract or expressly authorized or proposed by a Contractor Indemnitor;



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- (b) operation of Materials with any operating software other than that supplied by Contractor or authorized or proposed by a Contractor Indemnitor; or
- (c) combination or use with other products in a manner not contemplated by the Contract or expressly authorized or proposed by a Contractor Indemnitor.

## 14.7 First Party Liability Limitation

- 14.7.1 LIMIT. Subject to the provisos that follow below and unless stated otherwise in the Special Terms and Conditions, State’s and Contractor’s respective first party liability arising from or related to the Contract is limited to the greater of \$1,000,000 (one million dollars) or 3 (three) times the purchase price of the specific Materials or Services giving rise to the claim.
- 14.7.2 PROVISOs. This paragraph 14.7 limits liability for first party direct, indirect, incidental, special, punitive, and consequential damages relating to the Work regardless of the legal theory under which the liability is asserted. This paragraph 14.7 does not limit liability arising from any:
- (a) Indemnified Claim against which Contractor has indemnified State Indemnitees under paragraph **Error! Reference source not found.**;
  - (b) claim against which Contractor has indemnified State Indemnitees under paragraph 6.3; or
  - (c) provision of the Contract calling for liquidated damages or specifying amounts or percentages as being at-risk or subject to deduction for performance deficiencies.
- 14.7.2 PURCHASE PRICE DETERMINATION. If the Contract is for a single-agency and a single Order (or if no Order applies), then “purchase price” in subparagraph 14.7.1 above means the aggregate Contract price current at the time of Contract expiration or earlier termination, including all change orders or other forms of Contract Amendment having an effect on the aggregate price through that date. In all other cases, “purchase price” above means the total price of the Order for the specific equipment, software, or services giving rise to the claim, and therefore a separate limit will apply to each Order.
- 14.7.3 NO EFFECT ON INSURANCE. This paragraph does not modify the required coverage limits, terms, and conditions of, or any insured’s ability to claim against, any insurance that Contractor is required by the Contract to provide, and Contractor shall obtain express endorsements that it does not.

## 14.8 Information Technology Warranty

- 14.8.1 SPECIFIED DESIGN. Where the Scope of Work for information technology Work provides a detailed design specification or sets out specific performance requirements, Contractor warrants that the Work will provide all functionality material to the intended use stated in the Contract, provided that, the foregoing warranty does not extend to any portions of the Materials that are:
- (a) modified or altered by anyone not authorized by Contractor to do so;
  - (b) maintained in a way inconsistent to any applicable manufacturer recommendations; or
  - (c) operated in a manner not within its intended use or environment.
- 14.8.2 COTS SOFTWARE. With respect to Materials provided under the Contract that are commercial-off-the-shelf (COTS) software, Contractor warrants that:
- (a) to the extent possible, it will test the software before delivery using commercially available virus detection software conforming to current industry standards;
  - (b) the COTS software will, to the best of its knowledge, at the time of delivery be free of viruses, backdoors, worms, spyware, malware, and other malicious code that could hamper performance, collect unlawfully any personally identifiable information, or prevent products from performing as required by the Contract; and



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(c) it will provide a new or clean install of any COTS software that State has reason to believe contains harmful code.

14.8.3 PAYMENT HAS NO EFFECT. The warranties in this paragraph are not affected by State's inspection, testing, or payment.

### 14.9 Specific Remedies

Unless expressly stated otherwise elsewhere in the Contract, State's remedy for breach of warranty under paragraph 14.8 includes, at State's discretion, re-performance, repair, replacement, or refund of any amounts paid by State for the nonconforming Work, plus (in every case) Contractor's payment of State's additional, documented, and reasonable costs to procure materials or services equivalent in function, capability, and performance at that first called for. For clarification of intent, the foregoing obligations are limited by the limitation of liability in paragraph 14.7. If none of the foregoing options can reasonably be effected, or if the use of the materials by State is made impractical by the nonconformance, then State may seek any remedy available to it under law.

### 14.10 Section 508 Compliance

Unless specifically authorized in the Contract, any electronic or information technology offered to the State of Arizona under this Contract shall comply with A.R.S. § 18-131 and § 18-132 and Section 508 of the Rehabilitation Act of 1973, which requires that employees and members of the public shall have access to and use of information technology that is comparable to the access and use by employees and members of the public who are not individuals with disabilities.

### 14.11 Cloud Applications

The following are required for Contractor of any "cloud" solution that hosts State data outside of the State's network, or transmits and/or receives State data.

1. Submit a completed Arizona Baseline Infrastructure Security Controls assessment spreadsheet as found at: <https://aset.az.gov/resources/policies-standards-and-procedures>, and mitigate or install compensating controls for any issues of concern identified by State. Contractor is required to provide any requested documentation supporting the review of the assessment. The assessment shall be re-validated on a minimum annual basis.
2. State reserves the right to conduct Penetration tests or hire a third party to conduct penetration tests of the Contractor's application. Contractor will be alerted in advance and arrangements made for an agreeable time. Contractor shall respond to all serious flaws discovered by providing an acceptable timeframe to resolve the issue and/or implement a compensating control.
3. Contractor must submit copy of system logs from cloud system to State of AZ security team on a regular basis to be added to the State SIEM (Security Information Event Monitor) or IDS (Intrusion Detection System).

Contractor must employ a government-rated cloud compartment to better protect sensitive or regulated State data.

End of Section 2-C



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## SECTION 2-D: Uniform Terms and Conditions

Version 2018 (2/1/2018)

### 1.0 Definition of Terms

- 1.1 Acceptance** "Acceptance" means the document headed "Offer and Acceptance Form" bearing the State contract number once Procurement Officer has signed it to signify (1) State's formal acceptance of the Accepted Offer and (2) the formation of the Contract.
- 1.2 Accepted Offer** If State did not request a Revised Offer, then "Vendor Offer" means the Initial Offer.  
If State did request a Revised Offer but not a Best and Final Offer, then "Accepted Offer" means the latest Revised Offer.  
If State requested a Best and Final Offer, then "Accepted Offer" means the latest Best and Final Offer.
- 1.3 Arizona Procurement Code; A.R.S.; A.A.C.** The "Arizona Procurement Code, "A.R.S.," and "A.A.C." refers to Arizona Revised Statutes ("A.R.S.") § 41-2501, *et seq.*, and the rules promulgated thereunder, Arizona Administrative Code ("A.A.C.") R2-7-101, *et seq.*
- 1.4 Arizona TPT** "Arizona TPT" means Arizona Transaction Privilege Tax. For information, refer to the Arizona Department of Revenue (DOR) website at:  
<https://www.azdor.gov/business/transactionprivilegetax.aspx>.
- 1.5 Attachment** "Attachment" means any item that:
4. the Solicitation required Offeror to submit as part of the relevant Offer (e.g., Initial Offer, Revised Offer, or BAFO);
  5. was attached to an Offer when submitted; and
  6. was included in the Accepted Offer.
- 1.6 Contract** "Contract" means the combination of the Solicitation, including the Uniform and Special Instructions to Offerors, the Uniform and Special Terms and Conditions, and the Specifications and Statement or Scope of Work; the Offer and any Best and Final Offers; and any Solicitation Amendments or Contract Amendments or authorized Purchase Orders.
- 1.7 Contract Amendment** "Contract Amendment" means a document signed by Procurement Officer that has been issued for the purpose of making changes to the Contract after execution. Only the Procurement Officer responsible for this Contract has the authority to modify or amend this Contract. In ProcureAZ, the term "Change Order" has the same meaning as "Contract Amendment".
- 1.8 Contract Terms and Conditions** "Contract Terms and Conditions" means the Special Terms and Conditions and these Uniform Terms and Conditions taken collectively.
- 1.9 Contractor** "Contractor" means the Person identified on the Accepted Offer who has entered into the Contract with State.
- 1.10 Contractor Indemnitor** "Contractor Indemnitor" means Contractor or any of its owners, officers, directors, agents, employees, volunteers or Subcontractors.



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- 1.11 eProcurement System (currently ProcureAZ)** “eProcurement System” means State’s official electronic procurement system, established pursuant to A.A.C. R2-7-201 as set forth in the Arizona Department of Administration State Procurement Office policy. This eProcurement System may be subject to change. The State’s current eProcurement system is “ProcureAZ.” The current version of the ADOA policy regarding the State’s eProcurement System is *Technical Bulletin No. 020, ProcureAZ – The Official State eProcurement System*.

NOTE (1): Technical Bulletin No. 020 is available online at:  
<https://spo.az.gov/administration-policy/state-procurement-resource/procurement-regulations>

NOTE (2): The URL for ProcureAZ itself is:  
<https://procure.az.gov/>
- 1.12 Gratuity** “Gratuity” means a payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value is received.
- 1.13 Indemnified Basic Claims** “Indemnified Basic Claims” means any and all claims, actions, liabilities, damages, losses, or expenses, including court costs, attorney fees, and costs of claim processing, investigation and litigation, for bodily injury or personal injury, including death, or loss or damage to any real or tangible or intangible personal property, collectively. See paragraph 6.2.
- 1.14 Instructions to Offerors** “Instructions to Offerors” is Section 3-a of Part 3 of the Solicitation Documents.
- 1.15 Materials** “Materials” has the meaning given in A.R.S. § 41-2503(7). Materials includes software, except that if software is sold or provided as a service, then to the extent it consists of encoded information or computer instructions it is included in “Materials” and to the extent it is a service it described in “Services” below.
- 1.16 Offer: Initial Offer; Revised Offer; Best and Final Offer (BAFO)**

“Initial Offer” means, per A.A.C. R2-7-101(33), Offeror’s proposal submitted to State in response to the Solicitation, as initially submitted.

“Revised Offer” means any revised versions of the Initial Offer that Offeror has submitted to State at State’s request as permitted under A.A.C. R2-7-C314 and R2-7-C315.

“Best and Final Offer” (“BAFO”) means, per A.A.C. R2-7-101(8), the Revised Offer submitted after negotiations have been completed that contain Offeror’s most favorable terms for price, service, and products to be delivered.

Reference to “an Offer, “the Offer,” or “your Offer” means any of the Initial Offer, a Revised Offer, or the Best and Final Offer.
- 1.17 Pricing Document** “Pricing Document” means Section 2-B of Part 2 of the Solicitation Documents, provided that, if there is no such Section in the Contract, then “Pricing Document” is to be construed as referring to whatever item in the Contract contains the contracted pricing and payment provisions.
- 1.18 Procurement Officer** “Procurement Officer” means the person, or his or her designee, who has been duly authorized by the State to enter into and administer the Contract and to make written determinations with respect to the Contract. Procurement Officer is as identified on the Acceptance unless subsequently changed by Contract Amendment.
- 1.19 Purchase Order** “Purchase Order” means the instrument by which State authorizes Contractor to perform some or all of the Work. Whether the Contract will have one Purchase Order or many Purchase Orders depends the scope of the Contract and how State will use it. The Special Terms and Conditions provide that information. Any of the following is to be construed as being a “Purchase Order”:

7. “Release” or “Release Purchase Order” in ProcureAZ;



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- 8. "task order", "service order," or "job order" when a Release Purchase Order for Services has already been committed in ProcureAZ; or
- 9. "purchase order" for buying by Co-Op Buyers, if co-op buying applies.

- 1.20 Services** "Services" has the meaning given in A.R.S. § 41-2503(35), Services include the service aspects of software described in the definition of "Materials" above.
- 1.21 Specification** "Specification" has the meaning given in A.R.S. § 41-2561. Specifications (if any are included in the Contract), are indexed in the Scope of Work and could be bound separately from the other documents forming the Contract.
- 1.22 State** With respect to the Contract generally, "State" means the State of Arizona and its department, agency, university, commission, or board that has executed the Contract. With respect to administration or rights, remedies, obligations and duties under the Contract for a given Purchase Order, "State" means each of Eligible Agency or Co-Op Buyer who has issued the Purchase Order.
- 1.23 State Fiscal Year** "State Fiscal Year" means the period beginning with July 1 and ending June 30.
- 1.24 State Indemnitees** "State Indemnitees" means, collectively, the State of Arizona, its departments, agencies, universities, commissions, and boards and, and their respective officers, agents, and employees.
- 1.25 Subcontract** "Subcontract" means any Contract, express or implied, between the Contractor and another party or between a subcontractor and another party, delegating, in whole or in part, the making or furnishing of any material or any service required for the performance of the Contract.
- 1.26 Subcontractor** "Subcontractor" has the meaning given in A.R.S. § 41-2503(38).
- 1.27 Work** "Work" means the totality of the provision of Materials and the Services and all the acts of administration, creation, production, and performance necessary to fulfill and incidental to fulfilling all of Contractor's obligations and duties under the Contract in conformance with the Contract and applicable laws.

## 2.0 Contract Interpretation

- 2.1 Arizona Law** The Contract is governed by, and is to be interpreted in accordance with, the laws of the State of Arizona, including, but not limited to the Arizona Procurement Code, without consideration of conflict of laws principles.
- 2.2 Implied Terms** Each provision of law and any terms required by law to be in this Contract are a part of this Contract as if fully stated in it.
- 2.3 Contract Order of Precedence**

COMPLEMENTARY DOCUMENTS. All of the documents forming the Contract are complementary and all provisions are to be interpreted as a single, united Contract. If certain work, requirements, obligations, or duties are set out only in one but not in another, Contractor shall carry out the Work as though the relevant work, requirements, obligations, or duties had been fully described in all, consistent with the other documents forming the Contract and as is reasonably inferable from them as being necessary to produce complete results.

CONFLICTS. In case of any inconsistency, conflict, or ambiguity among the documents forming the Contract and their provisions, the Contract documents and their provisions are to prevail in the following order, descending from most dominate to most subordinate, provided that, among categories of documents or provisions within the same sub-section below, the document or provision with the latest date prevails. Information being identified in one document but not in another is not to be considered a conflict or inconsistency.

  - (a) Contract Amendments;
  - (b) the Solicitation Documents, in the order:
    - (1) Special Terms and Conditions;
    - (2) Exhibits to the Special Terms and Conditions;



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- (3) Uniform Terms and Conditions;
- (4) Scope of Work;
- (5) Exhibits to the Scope of Work;
- (6) Pricing Document;
- (7) Exhibits to the Pricing Document;
- (8) Specifications; and
- (9) any other documents referenced or included in the Solicitation;
- (c) Orders, in reverse chronological order; and
- (d) Accepted Offer.

- 2.4 Severability** The provisions of this Contract are severable to the extent allowed under Arizona Contract Law. Any term or condition deemed or adjusted illegal or invalid is thereby stricken from the Contract and will not affect any other term or condition of the Contract..
- 2.5 Complete Integration** The Contract, including any documents incorporated into the Contract by reference and any authorized Contract Amendments and Orders, is intended by the parties as a final and complete expression of their agreement. There are no prior, contemporaneous, or additional agreements, either oral or in writing, pertaining to the Contract. No course of prior dealings between the parties shall supplement or explain any terms used in this document and no other understanding either oral or in writing can independently bind the State to changes to the Contract.
- 2.6 Independent Contractor** Contractor is an independent contractor and shall act in an independent capacity in performance under the Contract. Neither party is or is to be construed as being to be the employee or agent of the other party, and no action, inaction, event, or circumstance will be grounds for deeming it to be so.
- 2.7 No Waiver of Rights** Either party's failure to insist on strict performance of any term or condition of the Contract is not, and is not to be construed as being, nor will it be deemed, a waiver of that term or condition or a bar to, or diminishment of the right of, subsequent enforcement of any term or condition.

## 3.0 Contract Administration and Operation

- 3.1 Books and Records; Audit**
  - 3.1.1 **RETAIN RECORDS.** By A.R.S. § 41-2548(B), Contractor shall retain and shall contractually require each Subcontractor to retain books and records relating for any cost and pricing data submitted in satisfaction of § 41-2543 for the period specified in the statute.
  - 3.1.2 **RIGHT TO AUDIT.** The retained books and records are subject to audit by State during that period. By A.R.S. § § 35-214 and-2548(B), Contractor shall retain and shall contractually require each Subcontractor to retain books and records relating to performance under the Contract for the period specified in the statute and those retained books and records are subject to audit by State during that period.
  - 3.1.3 **AUDITING.** Contractor or Subcontractor shall either make all such books and records under subparagraphs 3.1.1 and 3.1.2 available to State at all reasonable times or produce the records at a designated State office on State's demand, the choice of which being at State's discretion. For the purpose of this paragraph, "reasonable times" are during normal business hours and in such a manner so as to not unreasonably interfere with normal business activities. Any person who obstructs or impairs an audit being conducted or about to be conducted in relation to and Contract or Subcontract with the State may be found guilty of a Class 5 Felony under A.R.S. § 35-215.
- 3.2 Non-Discrimination** The Contractor shall comply with State Executive Order No. 2009-09 and all other applicable Federal and State laws, rules and regulations, including the Americans with Disabilities Act.



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### 3.3 Contractor Licenses

Contractor shall maintain current all federal, state and local licenses and permits required for the operation of its business in general, for its operations under the Contract, and for the Work itself.

### 3.4 Inspection and Testing

By A.R.S. § 41-2547, State may at reasonable times inspect the part of Contractor's or Subcontractors' plant or places of business related to performance under the Contract. Accordingly, Contractor agrees to permit (for itself) and ensure (for Subcontractors) access for inspection at any reasonable time to its facilities, processes, and services. State may inspect or test, at its own cost, any finished goods, work-in-progress, components, or unfinished materials that are be supplied under the Contract or that will be incorporated into something to be supplied under the Contract. If the inspection or testing shows non-conformance or defects, then Contractor will owe State reimbursement or payment of all costs it incurred in carrying out or contracting for the inspection and testing, as well as for any re-inspection or re-testing that might be necessary. Neither inspection of facilities nor testing of goods, work, components, or unfinished materials will of itself constitute acceptance by State of those things.

### 3.5 Notices and Correspondence

3.5.1 TO CONTRACTOR. State shall:

- (a) address all Contract correspondence other than formal notices to the email address indicated as "Default for Type" for "General Mailing Address" in Contractor's corresponding ProcureAZ Vendor Profile; and
- (b) address notices to Contractor to the "Contractor Name and Title" at the "Mailing Address" indicated in the Contract

3.5.2 TO STATE. Contractor shall :

- (a) address all Contract correspondence, other than notices, to the email address indicated in "Contact Instructions" in the ProcureAZ Summary for State; and
- (b) address any required notices to State to Procurement Officer identified as "Purchaser" in the ProcureAZ Summary at the following mailing address:

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3.5.3 CHANGES. State may change the designated Procurement Officer, update contact information, or change the applicable mailing address by Contract Amendment.

### 3.6 Signing of Contract Amendments

Contractor's counter-signature – or "approval" in ProcureAZ, in the case of a Change Order – is not required to give effect if the Contract Amendment only covers either:

- 10. extension of the term of the Contract within the maximum aggregate term;
- 11. revision to Procurement Officer appointment or contact information; or
- 12. modifications of a clerical nature that have no effect on terms, conditions, price, scope, or other material aspect of the Contract.

In every case other than those listed in (1), (2), and (3) above, both parties' signature – or "approval" in ProcureAZ, in the case of a Change Order – are required to give it effect.

### 3.7 Click-Through Terms and Conditions

If either party uses a web based ordering system, an electronic purchase order system, an electronic purchase order acknowledgement, a form of an electronic acceptance, or any software based ordering system with respect to the Contract (each an "Electronic Ordering System"), the parties acknowledge and agree that an Electronic Ordering System is for ease of administration only, and Contractor hereby acknowledges and agrees that the persons using Electronic Ordering Systems on behalf of State do not have any actual or apparent authority to create legally binding obligations that vary from the terms and conditions of the Contract. Accordingly, where an authorized State user is required to "click through" or otherwise accept or be made subject to any terms and conditions in using an Electronic Ordering Systems, any such terms and conditions are deemed void upon presentation. Additionally, where an authorized State user is required to accept or be made subject to any terms and conditions in accessing or employing any Materials or Services, those terms and conditions will also be void.



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### 3.8 Ownership of Intellectual Property

3.8.1 RIGHTS IN WORK PRODUCT. All intellectual property originated or prepared by Contractor pursuant to the Contract, including but not limited to, inventions, discoveries, intellectual copyrights, trademarks, trade names, trade secrets, technical communications, records reports, computer programs and other documentation or improvements thereto, including Contractor’s administrative communications and records relating to the Contract, are considered work product and Contractor’s property, provided that, State has Government Purpose Rights to that work product as and when it was delivered to State.

- (a) “Government Purpose Rights” are:
  - i. the unlimited, perpetual, irrevocable, royalty free, non-exclusive, worldwide right to use, modify, reproduce, release, perform, display, sublicense, disclose and create derivatives from that work product without restriction for any activity in which State is a party;
  - ii. the right to release or disclose that work product to third parties for any State government purpose; and
  - iii. the right to authorize those to whom it rightfully releases or discloses that work product to use, modify, release, create derivative works from the work product for any State government purpose; such recipients being understood to include the federal government, the governments of other states, and various local governments.

(b) “Government Purpose Rights” do not include any right to use, modify, reproduce, perform, release, display, create derivative works from, or disclose that work product for any commercial purpose or to authorize others to do so.

3.8.2 JOINT DEVELOPMENTS. The parties may each use equally any ideas, concepts, know-how, or techniques developed jointly during the course of the Contract, and may do so at their respective discretion, without obligation of notice or accounting to the other party.

3.8.3 PRE-EXISTING MATERIAL. All pre-existing software and other materials developed or otherwise obtained by or for Contractor or its affiliates independently of the Contract or applicable Purchase Orders are not part of the work product to which rights are granted State under subparagraph 3.8.1 above, and will remain the exclusive property of Contractor, provided that any derivative works of such pre-existing material or elements thereof that are created pursuant to the Contract are part of that work product.

### 3.9 Subcontracts

3.9.1 INITIAL LIST. At the time of Contract execution, Contractor may have listed prospective Subcontractors in Attachment 3-C to the Vendor Offer [*Proposed Subcontractors*]. If a Subcontractor is on this initial list in a Vendor Offer, then the Contractor has the Procurement Officer’s advance consent to enter into a Subcontract with each listed candidate.

3.9.2 ADDITIONAL NAMES. Contractor shall not enter into a Subcontract without first obtaining Procurement Officer’s written consent with any prospective Subcontractor that (a) was not listed on Attachment 3-C at time of Contract execution or (b) is for any Materials or Services categories other than the ones for which they were previously consented. For either case (a) or (b), Contractor shall submit a written request sufficiently in advance of the need date for those materials or services so that performance under the Contract is not impaired. Procurement Officer may request any additional information he or she determines is necessary to assess the submittal, and may withhold consent pending it.

3.9.3 FLOW-DOWN. Contractor shall incorporate the provisions, terms, and conditions of the Contract into every Subcontract by inclusion or by reference, as appropriate. When making any post-execution consent requests, Contractor shall include its warrant that it will do the same for the pending Subcontracts covered by the request. Entering into



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Subcontracts will not relieve Contractor of any of its obligations or duties under the Contract, including, among other things, the duty to supervise and coordinate the work of Subcontractors. Nothing contained in any Subcontract will create or is to be construed as creating any contractual relationship between State and the Subcontractor.

- 3.10 E-Verify Requirements** In accordance with A.R.S. § 41-4401, Contractor warrants compliance with all Federal immigration laws and regulations relating to employees and warrants its compliance with Section A.R.S. § 23-214, Subsection A. Contractor acknowledges and agrees that under A.R.S. § 41-4401, State retains the legal right to inspect papers of any Contractor employee who works under the Contract to ensure compliance with the foregoing warranty and understands that a breach of the foregoing warranty under shall be deemed a material breach of the Contract that is subject to penalties up to and including termination of the Contract.
- 3.11 Offshore Performance of Certain Work Prohibited** Contractor shall only perform those portions of the Services that directly serve State or its clients and involve access to secure or sensitive data or personal client data within the defined territories of the United States. Unless specifically stated otherwise in the Scope of Work, this paragraph does not apply to indirect or overhead services, redundant back-up services, or services that are incidental to performance under the Contract. This provision applies to work performed by Subcontractors at all tiers.
- 3.12 Purchase Orders**
  - 3.12.1 PURCHASE ORDER SUFFICIENCY. A Purchase Order issued by an authorized person that cites the correct State contract number will suffice to authorize Contractor to provide the Materials and perform the Services covered by that Purchase Order.
  - 3.12.2 PURCHASE ORDER TERMS. All Purchase Orders are subject to the Contract Terms and Conditions; a Purchase Order cannot modify the Contract Terms and Conditions.
  - 3.12.3 PURCHASE ORDERS ARE OBLIGATORY. Until the expiration or earlier termination of the Contract, State may issue and Contractor shall accept Purchase Orders that make proper reference to the Contract and are permissible hereunder, provided that, Contractor is not obliged to accept any Purchase Order that is not consistent with the then-current pricing, lead times, specifications, or payment provisions of the Contract. Contractor shall fulfill and complete any Purchase Orders that are begun but not yet completed as of expiration or earlier termination of the Contract unless State instructs otherwise at the time.
  - 3.12.4 SPECIAL CASE. In the special case where both the following conditions are true, Procurement Officer's signature on the Acceptance is Contractor's authorization to perform and therefore no Purchase Order is required: (a) the Contract is identified as being a "single-agency/single-project" contract and (b) the Contract was created in ProcureAZ as something other than a "Master/ Blanket" type.
  - 3.12.5 NO MINIMUMS OR COMMITMENTS. (a) Contractor shall not impose any minimum dollar amount, item count, services volume, or services duration on Purchase Orders; (b) State makes no commitment of any kind concerning the quantity or monetary value of activity actually initiated or completed during the term of the Contract; (c) Contractor shall only deliver or perform as authorized by Purchase Orders; and (d) State is not limited as to the number of Purchase Orders it may issue for the Contract. For clarity of intent, the foregoing applies equally whether an Eligible Agency issues the Purchase Order or, if applicable, a Co-Op Buyer issues it.
  - 3.12.6 NON-CONTRACTED MATERIALS OR SERVICES. Any attempt to knowingly represent for sales, marketing, or related purposes that goods or services not specifically awarded are under a State contract is a violation of the Contract and law.
- 3.13 Other Contractors** State may undertake with its own forces or award other contracts to the same or other vendors for additional or related work. In such cases, Contractor shall cooperate fully with State's employees and such other vendors and carefully coordinate, fit, connect, accommodate, adjust, or sequence its work to the related work by others. Where the Contract requires handing-off Contractor's work to others, Contractor shall cooperate as State instructs regarding the necessary transfer of its work product, services, or records to State or the other vendors.



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Contractor shall not commit or permit any act that interferes with the State's or other vendors' performance of their work.

**3.14 Work on State Premises**

3.14.1 COMPLIANCE WITH RULES. Contractor is responsible for ensuring that its personnel comply with State's rules, regulations, policies, documented practices, and documented operating procedures while delivering or installing Materials or performing Services on State's grounds or in its facilities. Contractor shall comply with State security requirements in order to deliver, install, or perform at that particular location, without entitlement to any additional compensation or additional time for performance if those particular requirements are not expressly stated in the Contract.

3.14.2 PROTECTION OF GROUNDS AND FACILITIES. Contractor shall deliver or install the Materials and perform the Services without damaging any State grounds or facilities. Contractor shall promptly repair or replace any damage it caused and at its own expense, subject to whatever instructions and restrictions State needs to make to prevent inconvenience or disruption of operations. If Contractor fails to make the necessary repairs or replacements in a timely manner, State will be entitled to exercise its remedies under paragraph 8.5 [Right of Offset].

**3.15 Advertising, Publishing and Promotion of Contract**

Contractor shall not advertise, promote, or otherwise use information concerning the Contractor commercial benefit without the prior written approval of Procurement Officer, which approval Procurement Officer may withhold at his or her discretion.

## 4.0 Costs and Payments

**4.1 Payments**

4.1.1 PAYMENT DEADLINE. State shall make payments in compliance with Arizona Revised Statutes Titles 35 and 41. Unless stated otherwise in the Pricing Document, State shall make payment in full for Materials that have been delivered and accepted and Services that have been performed and accepted within the time specified in A.R.S. § 35-342 after both of the following become true: (a) all of the Materials being invoiced have been delivered or installed (as applicable) and accepted and all of the Services being invoiced have been performed and accepted; and (b) Contractor has provided a complete and accurate invoice in the form and manner called for in the Pricing Document, provided that, State will not make or be liable for any payments to Contractor until Contractor has registered properly in ProcureAZ and provided a current IRS Form W-9 or an equivalent form to the State unless excused by law from providing one.

4.1.2 PAYMENTS ONLY TO CONTRACTOR. Unless compelled otherwise by operation of law or order of a court of competent jurisdiction, State will only make payment to Contractor under the federal tax identifier indicated on the Vendor Offer.

**4.2 Applicable Taxes**

4.2.1 CONTRACTOR TO PAY ALL TAXES. State is subject to Arizona TPT. Therefore, Arizona TPT applies to all sales under the Contract and Arizona TPT is Contractor's responsibility (as seller) to remit. Contractor's failure to collect Arizona TPT or any other applicable sales or use taxes from an Eligible Agency or Co-Op Buyer (as buyer) will not relieve Contractor of any obligation to remit sales or use taxes that are due under the Contract or laws. Unless stated otherwise in the Pricing Document, all prices therein include Arizona TPT as well as every other manner of transaction privilege or sales/use tax that is due to a municipality or another state or its political subdivisions. Contractor shall pay all federal, state, and local taxes applicable to its operations and personnel.

4.2.2 TAX INDEMNITY. Contractor shall hold State harmless from any responsibility for taxes or contributions, including any applicable damages and interest, that are due to federal, state, and local authorities with respect to the Work and the Contract, as well any related costs; the foregoing expressly includes Arizona TPT, unemployment compensation insurance, social security, and workers' compensation insurance.

**4.3 Availability of Funds for the Next State fiscal year**

Funds may not presently be available for performance under this Contract beyond the current state fiscal year. No legal liability on the part of the State for any payment may arise under this



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#### 4.4 Availability of Funds for the current State fiscal year

Contract beyond the current state fiscal year until funds are made available for performance of this Contract.

Should the State Legislature enter back into session and reduce the appropriations or for any reason and these goods or services are not funded, the State may take any of the following actions:

- 4.4.1. Accept a decrease in price offered by the contractor;
- 4.4.2. Cancel the Contract; or
- 4.4.3. Cancel the contract and re-solicit the requirements

### 5.0 Contract Changes

#### 5.1 Amendments

This Contract is issued under the authority of the Procurement Officer who signed this Contract. The Contract may be modified only through a Contract Amendment within the scope of the Contract. Changes to the Contract, including the addition of work or materials, the revision of payment terms, or the substitution of work or materials, directed by a person who is not specifically authorized by the procurement officer in writing or made unilaterally by the Contractor are violations of the Contract and of applicable law. Such changes, including unauthorized written Contract Amendments shall be void and without effect, and the Contractor shall not be entitled to any claim under this Contract based on those changes.

#### 5.2 Assignment and Delegation

- 5.2.1 IN WHOLE. Contractor shall not assign or delegate its duties under the Contract, in whole or in part, without Procurement Officer's prior written consent; Procurement Officer may withhold at his or her discretion. If Contractor's proposed assignment or delegation stems from a split, sale, acquisition, or other non-merger change in control, then no such consent will be given in any event without the assignee or delegate giving State satisfactory and equivalent evidence or assurance of its financial soundness, competency, capacity, and qualification to perform as that which Contractor possessed when State first awarded it the Contract.
- 5.2.2 IN PART. Subject to paragraph 3.9 (*Subcontracts*) with respect to subcontracting, Contractor may assign particular rights or delegate particular duties under the Contract, but shall obtain Procurement Officer's written consent before doing so. Procurement Officer shall not unreasonably withhold consent so long as the proposed assignment or delegation does not attempt to modify the Contract in any way or to alter or impair State's rights or remedies under the Contract or laws.

### 6.0 Risk and Liability

#### 6.1 Risk of Loss

Contractor shall bear all risk of loss to Materials if, and as, those duties are within the scope of the Work, until they have been accepted as conforming by State in the manner specified in the Purchase Order, or as specified generally elsewhere in the Contract if the Purchase Order does not provide particulars. Risk of loss for nonconforming Materials will remain with Contractor notwithstanding acceptance to the extent the loss stems from the nonconformance.

#### 6.2 Basic Indemnification

6.2.1 CONTRACTOR/VENDOR (NOT PUBLIC AGENCY). To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless State Indemnitees from Indemnified Basic Claims that: (a) are caused or alleged to be caused in whole or in part by the negligent or willful acts or omissions of a Contractor Indemnitor; (b) arise out of or are recovered under worker compensation laws; and/or (c) arise out of a Contractor Indemnitor's failure to conform to any federal, state, or local law, statute, ordinance, rule, regulation, or court decree. The parties specifically intend that the Contractor Indemnitors shall indemnify the relevant State Indemnitees from and against Indemnified Basic Claims in all instances except where the Indemnified Basic Claim arises solely from those State Indemnitees' own negligent or willful acts or omissions. Wherever the indemnification under this subparagraph applies, Contractor is responsible for primary loss investigation, defense, and judgment costs for an on behalf of the other Contractor Indemnitors with respect to State Indemnitees, and accordingly Contractor is also responsible for any cooperation, contribution, or subordination



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between or amongst the Contractor Indemnitors. In consideration of the award of the Contract by a State Indemnitee, Contractor hereby waives all rights of subrogation against State Indemnities for losses arising from the Work.

If Contractor is a public agency, this paragraph does not apply and subparagraph 6.2.1 below applies instead.

6.2.2 PUBLIC AGENCY. Each party (as 'indemnitor') agrees to indemnify, defend, and hold harmless the other party (as 'indemnitee') from and against any and all claims, losses, liability, costs, or expenses (including reasonable attorney's fees) (hereinafter collectively referred to as 'claims') arising out of bodily injury of any person (including death) or property damage but only to the extent that such claims which result in vicarious/derivative liability to the indemnitee, are caused by the act, omission, negligence, misconduct, or other fault of the indemnitor, its officers, officials, agents, employees, or volunteers.

6.2.3 If Contractor is not a public agency, this paragraph does not apply and subparagraph above applies instead.

### 6.3 Patent and Copyright Indemnification

CONTRACTOR/VENDOR (NOT PUBLIC AGENCY). With respect to Materials or Services provided or proposed by a Contractor Indemnitor for performance under the Contract, Contractor shall indemnify, defend and hold harmless State Indemnitees against any third-party claims for liability, costs, and expenses, including, but not limited to reasonable attorney fees, for infringement or violation of any patent, trademark, copyright, or trade secret by the Materials and the Services. With respect to the defense and payment of claims under this subparagraph:

- 13. State shall provide reasonable and timely notification to Contractor of any claim for which Contractor may be liable under this paragraph;
- 14. Contractor, with reasonable consultation from State, shall have control of the defense of any action on an indemnified claim including all negotiations for its settlement or compromise;
- 15. State may elect to participate in such action at its own expense; and
- 16. State may approve or disapprove any settlement or compromise, provided that, (i) State shall not unreasonably withhold or delay such approval or disapproval and (ii) State shall cooperate in the defense and in any related settlement negotiations.

If Contractor is a public agency, this paragraph 6.3 does not apply.

### 6.4 Force Majeure

6.4.1 DEFINITION. For this paragraph, "force majeure" means an occurrence that is (a) beyond the control of the affected party, (b) occurred without the party's fault or negligence, and (c) something the party was unable to prevent by exercising reasonable diligence. Without limiting the generality of the foregoing, force majeure expressly includes acts of God, acts of the public enemy, war, riots, strikes, mobilization, labor disputes, civil disorders, fire, flood, lockouts, injunctions-intervention-acts, failures or refusals to act by government authorities, and, subject to paragraph 7.10 (*Performance in Public Health Emergency*), declared public health emergencies. Force majeure expressly does not include late delivery caused by congestion at a manufacturer's plant or elsewhere, an oversold condition of the market, late performance by a Subcontractor unless the delay arises out of an occurrence of force majeure, or inability of either Contractor or any Subcontractor to acquire or maintain any required insurance, bonds, licenses, or permits.

6.4.2 RELIEF FROM PERFORMANCE. Except for payment of sums due, the parties are not liable to each other if an occurrence of force majeure prevents its performance under the Contract. If either party is delayed at any time in the progress of their respective performance under the Contract by an occurrence of force majeure, the delayed party shall notify the other no later than the following working day after the occurrence, or as soon as it could reasonably have been expected to recognize that the occurrence had effect in cases where the effects were not readily apparent. In any event, the notice must make specific reference to this paragraph specifying the causes of the delay in the notice and, if the effects of the occurrence are on-going, provide an initial notification



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and thereafter the delayed party shall provide regular updates until such time as the effects are fully known. To the extent it is able, the delayed party shall cause the delay to cease promptly and notify the other party when it has done so. The parties shall extend the time of completion by Contract Amendment for a period equal to the time that the results or effects of the delay prevented the delayed party from performing.

6.4.3 EXCUSABLE DELAY IS NOT DEFAULT. Failure in performance by either party will not constitute default hereunder or give rise to any claim for damages or loss of anticipated profits if and to the extent that such failure was or is being caused by an occurrence of force majeure.

6.4.4 DEFAULT DIMINISHES RELIEF. Entitlement to relief from the effects of an occurrence of force majeure is diminished to the extent that the delay did or will result from the affected party's default unrelated to the occurrence, in which case and to that extent the other party's normal remedies and the affected party's obligations would apply undiminished.

**6.5 Third Party Antitrust Violations**

Contractor assigns to State any claim for overcharges resulting from antitrust violations to the extent that those violations concern materials or services supplied by third parties to Contractor toward fulfillment of the Contract.

## 7.0 Warranties

**7.1 Liens**

The Contractor warrants that the materials supplied under this Contract are free of liens and shall remain free of liens.

**7.2 Conformity to Requirements**

Contractor warrants that, unless expressly provided otherwise elsewhere in the Contract, the Materials and Services will for 1 (one) year after acceptance and in each instance: (1) conform to the requirements of the Contract, which by way of reminder include without limitation all descriptions, specifications, and drawings identified in the Scope of Work and any Contractor affirmations included as part of the Contract; (2) be free from defects of material and workmanship; (3) conform to or perform in a manner consistent with current industry standards; and (4) be fit for the intended purpose or use described in the Contract. Mere delivery or performance does not substitute for express acceptance by State. Where inspection, testing, or other acceptance assessment of Materials or Services cannot be done until after installation, the forgoing warranty will not begin until State's acceptance.

**7.3 Quality**

Unless otherwise modified elsewhere in these terms and conditions, the Contractor warrants that, for 1 (one) year after acceptance by the State of the materials, they shall be:

7.3.1. Of a quality to pass without objection in the trade under the Contract description;

7.3.2. Fit for the intended purposes for which the materials are used;

7.3.3. Within the variations permitted by the Contract and are of even kind, quantity, and quality within each unit and among all units;

7.3.4. Adequately contained, packaged and marked as the Contract may require; and

7.3.5. Conform to the written promises or affirmations of fact made by the Contractor.

**7.4 Inspection/Testing**

The warranties set forth in subparagraphs 7.1 through 7.3 of this paragraph are not affected by inspection or testing of or payment for the materials by the State.

**7.5 Compliance with Laws**

The materials and services supplied under this Contract shall comply with all applicable Federal, state and local laws, and the Contractor shall maintain all applicable license and permit requirements.

**7.6 Survival of Rights and Obligations after Contract Expiration or Termination**

7.6.1. Contractor's Representations and Warranties. All representations and warranties made by the Contractor under this Contract shall survive the expiration or termination hereof. In addition, the parties hereto acknowledge that pursuant to A.R.S. § 12-510, except as provided in A.R.S. § 12-529, the State is not subject to or barred by any limitations of actions prescribed in A.R.S., Title 12, Chapter 5.



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7.6.2. Purchase Orders. The Contractor shall, in accordance with all terms and conditions of the Contract, fully perform and shall be obligated to comply with all purchase orders received by the Contractor prior to the expiration or termination hereof, unless otherwise directed in writing by the Procurement Officer, including, without limitation, all purchase orders received prior to but not fully performed and satisfied at the expiration or termination of this Contract.

**7.7 Contractor Personnel**

Contractor warrants that its personnel will perform their duties under the Contract in a professional manner, applying the requisite skills and knowledge, consistent with industry standards, and in accordance with the requirements of the Contract. Contractor further warrants that its key personnel will maintain any certifications relevant to their work, and Contractor shall provide individual evidence of certification to State's authorized representatives upon request.

**7.8 Intellectual Property**

Contractor warrants that the Materials and Services do not and will not infringe or violate any patent, trademark, copyright, trade secret, or other intellectual property rights or laws, except only to the extent the Specifications do not permit use of any other product and Contractor is not and cannot reasonably be expected to be aware of the infringement or violation.

**7.9 Operational Continuity**

Contractor warrants that it will perform without relief notwithstanding being sold or acquired; no such event will operate to mitigate or alter any of Contractor's duties hereunder absent a consented delegation under paragraph 5.2 (*Assignment and Delegation*) that expressly recognizes the event.

**7.10 Performance in Public Health Emergency**

Contractor warrants that it will:

- 17. have in effect promptly after commencement a plan for continuing performance in the event of a declared public health emergency that addresses, at a minimum: (a) identification of response personnel by name; (b) key succession and performance responses in the event of sudden and significant decrease in workforce; and (c) alternative avenues to keep sufficient product on hand or in the supply chain; and
- 18. provide a copy of its current plan to State within 3 (three) business days after State's written request. If Contractor claims relief under paragraph 6.4 (*Force Majeure*) for an occurrence of force majeure that is a declared public health emergency, then that relief will be conditioned on Contractor having first implemented its plan and exhausted all reasonable opportunity for that plan implementation to overcome the effects of that occurrence, or mitigate those effects to the extent that overcoming entirely is not practicable.

For clarification of intent, being obliged to implement the plan is not of itself an occurrence of force majeure, and Contractor will not be entitled to any additional compensation or extension of time by virtue of having to implement it. Furthermore, failure to have or implement an appropriate plan will be a material breach of contract.

**7.11 Lobbying**

**7.11.1 PROHIBITION.**

- (a) Contractor warrants that:
  - i. it will not engage in lobbying activities, as defined in 40 CFR part 34 and A.R.S. § 41-1231, et seq., using monies awarded under the Contract, provided that, the foregoing does not intend to constrain Contractor's use of its own monies or property, including without limitation any net proceeds duly realized under the Contract or any value thereafter derived from those proceeds; and
  - ii. upon award of the Contract, it will disclose all lobbying activities to State to the extent they are an actual or potential conflict of interest or where such activities could create an appearance of impropriety.
- (b) Contractor shall implement and maintain adequate controls to assure compliance with (a) above.
- (c) Contractor shall obtain an equivalent warranty from all Subcontractors and shall include an equivalent no-lobbying provision in all Subcontracts.



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7.11.2 EXCEPTION. This paragraph does not apply to the extent that the Services are defined in the Contract as being lobbying for State's benefit or on State's behalf.

## 8.0 State's Contractual Remedies

- 8.1 Right to Assurance** If the State in good faith has reason to believe that the Contractor does not intend to, or is unable to perform or continue performing under this Contract, the Procurement Officer may demand in writing that the Contractor give a written assurance of intent to perform. Failure by the Contractor to provide written assurance within the number of Days specified in the demand may, at the State's option, be the basis for terminating the Contract under the Uniform Terms and Conditions or other rights and remedies available by law or provided by the contract.
- 8.2 Stop Work Order**
  - 8.2.1. The State may, at any time, by written order to the Contractor (the "Stop Work Order"), require the Contractor to stop all or any part, of the work called for by this Contract for period(s) of days indicated by the State in the Stop Work Order. The order shall be specifically identified as a Stop Work Order issued under this clause. Upon receipt of the Stop Work Order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the Stop Work Order during the period of work stoppage.
  - 8.2.2. If a Stop Work Order issued under this clause is canceled or the period of the order or any extension expires, the Contractor shall resume work. If the Procurement Officer determines that an equitable adjustment is necessary, he or she shall make an equitable adjustment in the delivery schedule or Contract price, or both, and the Contract shall be amended in writing accordingly.
- 8.3 Non-exclusive Remedies** The rights and the remedies of the State under this Contract are not exclusive.
- 8.4 Nonconforming Tender** Materials or services supplied under this Contract shall fully comply with the Contract. The delivery of materials or services or a portion of the materials or services that do not fully comply constitutes a breach of contract. On delivery of nonconforming materials or services, the State may terminate the Contract for default under applicable termination clauses in the Contract, exercise any of its rights and remedies under the Uniform Commercial Code, or pursue any other right or remedy available to it.
- 8.5 Right of Offset** The State shall be entitled to offset against any sums due the Contractor, any expenses or costs incurred by the State, or damages assessed by the State concerning the Contractor's non-conforming performance or failure to perform the Contract, including expenses, costs and damages described in the Uniform Terms and Conditions.

## 9.0 Contract Termination

- 9.1 Cancellation for Conflict of Interests** Pursuant to A.R.S. § 38-511, the State may cancel this Contract within three (3) years after Contract execution without penalty or further obligation if any person significantly involved in initiating, negotiating, securing, drafting or creating the Contract on behalf of the State is or becomes at any time while the Contract or an extension of the Contract is in effect an employee of or a consultant to any other party to this Contract with respect to the subject matter of the Contract. The cancellation shall be effective when the Contractor receives written notice of the cancellation unless the notice specifies a later time. If the Contractor is a political subdivision of the State, it may also cancel this Contract as provided in A.R.S. § 38-511.
- 9.2 Gratuities** The State may, by written notice, terminate this Contract, in whole or in part, if the State determines that employment or a Gratuity was offered or made by the Contractor or a representative of the Contractor to any officer or employee of the State for the purpose of influencing the outcome of the procurement or securing the Contract, an amendment to the Contract, or favorable treatment concerning the Contract, including the making of any determination or decision about contract performance. The State, in addition to any other rights or remedies, shall be entitled to recover exemplary damages in the amount of three times the value of the Gratuity offered by the Contractor.



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**9.3 Suspension or Debarment**

The State may, by written notice to the Contractor, immediately terminate this Contract if the State determines that the Contractor has been debarred, suspended or otherwise lawfully prohibited from participating in any public procurement activity, including but not limited to, being disapproved as a subcontractor of any public procurement unit or other governmental body. Submittal of an offer or execution of a contract shall attest that the contractor is not currently suspended or debarred. If the contractor becomes suspended or debarred, the contractor shall immediately notify the State.

**9.4 Termination for Convenience**

The State reserves the right to terminate the Contract, in whole or in part at any time when in the best interest of the State, without penalty or recourse. Upon receipt of the written notice, the Contractor shall stop all work, as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the State. In the event of termination under this paragraph, all documents, data and reports prepared by the Contractor under the Contract shall become the property of and be delivered to the State upon demand. The Contractor shall be entitled to receive just and equitable compensation for work in progress, work completed and materials accepted before the effective date of the termination.

**9.5 Termination for Default**

9.5.1. In addition to the rights reserved in the contract, the State may terminate the Contract in whole or in part due to the failure of the Contractor to comply with any term or condition of the Contract, to acquire and maintain all required insurance policies, bonds, licenses and permits, or to make satisfactory progress in performing the Contract. The Procurement Officer shall provide written notice of the termination and the reasons for it to the Contractor.

9.5.2. Upon termination under this paragraph, all goods, materials, documents, data and reports prepared by the Contractor under the Contract shall become the property of and be delivered to the State on demand.

9.5.3. The State may, upon termination of this Contract, procure, on terms and in the manner that it deems appropriate, materials or services to replace those under this Contract. The Contractor shall be liable to the State for any excess costs incurred by the State in procuring materials or services in substitution for those due from the Contractor.

**9.6 Continuation of Performance Through Termination**

The Contractor shall continue to perform, in accordance with the requirements of the Contract, up to the date of termination, as directed in the termination notice.

## 10.0 Contract Claims

**10.1 Claim Resolution**

Notwithstanding any law to the contrary, all contract claims or controversies under the Contract are to be resolved according to the Arizona Procurement Code, including judicial review under A.R.S. § 12-1518.

**10.2 Arbitration**

The parties to this Contract agree to resolve all disputes arising out of or relating to this Contract through arbitration, after exhausting applicable administrative review, to the extent required by A.R.S. § 12-1518, except as may be required by other applicable statutes (Title 41).

End of Section 2-D  
End of Part 2



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## Part 3 of the Solicitation

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## Section 3-A: Instructions to Offerors

### 1.0 Definition of Terms

As used in these Instructions to Offerors, the terms listed below are defined as follows:

- 1.1 Arizona Procurement Code; A.R.S.; A.A.C.** “Arizona Procurement Code” means, collectively, Title 41 Chapter 23, *et. sequitur*, in the Arizona Revised Statutes (abbreviated “A.R.S.”) and administrative rules R2-7-101 *et. sequitur* in the Arizona Administrative Code (abbreviated “A.A.C.”).  
NOTE: There are frequent references to the Arizona Procurement Code throughout the Solicitation Documents, therefore, you will need to be familiar with its provisions to be able to understand the Solicitation Documents fully.  
The Arizona Department of Administration State Procurement Office provides a reference compilation of the Arizona Procurement Code on its website:  
<https://spo.az.gov/administration-policy/state-procurement-resource/procurement-regulations>  
The Arizona State Legislature provides the official A.R.S. online at:  
<http://www.azleg.gov/ArizonaRevisedStatutes.asp>  
The Office of the Arizona Secretary of State provides the official A.A.C. online at:  
<http://www.azsos.gov/rules/arizona-administrative-code>
- 1.2 Clarifications** “Clarifications” means, per A.A.C. R2-7-C313, communications between the Procurement Officer and Offeror for the purpose of providing a greater mutual understanding of the Offer. Clarifications may include demonstrations, questions and answers, or elaborations on previously-submitted information.
- 1.3 Contract** “Contract” is defined in paragraph 1.2 of the Uniform Terms and Conditions.
- 1.4 Contract Amendment** “Contract Amendment” is defined in paragraph 1.3 of the Uniform Terms and Conditions.
- 1.5 Contract Terms and Conditions** “Contract Terms and Conditions” is defined in paragraph 1.8 of the Special Terms and Conditions.
- 1.6 Contractor** “Contractor” is defined in paragraph 1.4 of the Uniform Terms and Conditions.
- 1.7 Evaluation** “Evaluation” means, per A.A.C. R2-7-316, the process whereby the Procurement Officer will determine which Responsive offers, revised offers, and best and final offers are the most advantageous to State taking into consideration the evaluation factors set forth in the Solicitation Documents.
- 1.8 Negotiation** “Negotiation” means, per A.A.C. R2-7-101(32), an exchange or series of exchanges between State and an offeror for the purposes set forth in A.A.C. R2-7-C314.
- 1.9 Not Susceptible for Award** “Not Susceptible for Award” means, per A.A.C. R2-7-C311, that the relevant offer has been determined by the Procurement Officer to fail one or more of the tests and comparisons set forth therein. NOTE: A determination of Not Susceptible for Award and a determination of Responsive are mutually exclusive.



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- 1.10 Offer:**  
**Initial Offer;**  
**Revised Offer;**  
**Best and Final Offer**  
**(BAFO)**
- “Initial Offer” means, per A.A.C. R2-7-101(33), Offeror’s proposal submitted to State in response to the Solicitation, as initially submitted.
- “Revised Offer” means any revised versions of the Initial Offer that Offeror has submitted to State at State’s request as permitted under A.A.C. R2-7-C314 and R2-7-C315.
- “Best and Final Offer” (“BAFO”) means, per A.A.C. R2-7-101(8), the Revised Offer submitted after negotiations have been completed that contain Offeror’s most favorable terms for price, service, and products to be delivered.
- Reference to “an Offer,” “the Offer,” or “your Offer” means any of the Initial Offer, a Revised Offer, or the Best and Final Offer.
- 1.11 Offeror**
- “Offeror” is the Person submitting an Offer; instructions addressed to “you” and references to “your” items are to be construed as being synonymous with “Offeror” and “Offeror’s” throughout these Instructions to Offerors.
- 1.12 Pricing Document**
- “Pricing Document” means Section 2-B of the Solicitation Documents. Also known as Pricing Document as defined in the Special Terms and Conditions.
- 1.13 ProcureAZ**
- “ProcureAZ” is defined in paragraph 1.16 of the Special Terms and Conditions.
- 1.14 Procurement Officer**
- “Procurement Officer” means the person, or his or her designee, who has been duly authorized by State to administer the Solicitation and make written determinations with respect to the Solicitation. The Procurement Officer is identified in ProcureAZ.
- 1.15 Solicitation**
- “Solicitation” means this procurement solicitation, which State is issuing as either:
- (a) an invitation for bids (“IFB”) under A.R.S. § 41-2533;
  - (b) a request for proposals (“RFP”) under A.R.S. § 41-2534;
  - (c) a request for quotations (“RFQ”) under A.R.S. § 41-2535; or
  - (d) a request for qualifications under A.R.S. §41-2558.
- Refer to the Solicitation Summary for which of the foregoing is this Solicitation.
- 1.16 Solicitation Amendment**
- “Solicitation Amendment” means, per A.A.C. R2-7-303, a change to the Solicitation that has been issued by Procurement Officer.
- 1.17 Solicitation Summary**
- “Solicitation Summary” means Section 1 of the Solicitation Documents.
- 1.18 State**
- “State” is defined in paragraph 1.11 of the Uniform Terms and Conditions.
- 1.19 Subcontract**
- “Subcontract” is defined in paragraph 1.13 of the Uniform Terms and Conditions.
- 1.20 Subcontractor**
- “Subcontractor” is defined in paragraph 1.19 of the Uniform Terms and Conditions.

## 2.0 Solicitation Inquiries

- 2.1 Duty to Examine**
- Examine the entire Solicitation, obtain clarification in writing for any questions or concerns by submitting inquiries, then examine your Offer thoroughly and carefully for completeness and accuracy before submitting it. Lack of care in preparing an Offer will not be grounds for modifying or withdrawing it after the due date and time.



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- 2.2 State Contact Person**

Direct all inquiries related to the Solicitation to Procurement Officer, including requests for or inquiries regarding standards referenced in the Solicitation. Apart from the ProcureAZ Help Desk, do not contact any State personnel other than Procurement Officer concerning the Solicitation while it is in progress, through and including award.
- 2.3 Submission of Inquiries**

Submit all inquiries related to the Solicitation in ProcureAZ; the Procurement Officer will not respond to inquiries received in any other manner.

  - (a) Submit technical inquiries about submitting proposals in ProcureAZ to the ProcureAZ Help Desk:
    - by phone at (602) 542-7600, option 1; or
    - by email to [procure@azdoa.gov](mailto:procure@azdoa.gov).
  - (b) Submit all other inquiries about the Solicitation using the online form under the **“Q&A” tab for the Solicitation in ProcureAZ**. Always refer to the appropriate Solicitation document by page and paragraph number. Except for technical inquiries about submitting proposals, State is not responsible for responding to any inquiries submitted **less than 3 (three) business days before the offer due date and time**.
- 2.4 Timeliness**

Any inquiry or exception to the solicitation shall be submitted as soon as possible and should be submitted at least seven days before the Offer due date and time for review and determination by the State. Failure to do so may result in the inquiry not being considered for a Solicitation Amendment.
- 2.5 Verbal or Email Responses**

An Offeror shall not rely on verbal responses to inquiries. A verbal reply to an inquiry does not constitute a modification of the solicitation.
- 2.6 Solicitation Amendments**

Only a Solicitation Amendment issued in ProcureAZ can change the Solicitation.
- 2.7 Pre-Offer Conference**

A Pre-Offer Conference will be held at the time and place indicated in the solicitation’s ‘Pre-Bid Conference’ field as found within the State’s e-Procurement system, ProcureAZ (<https://procure.az.gov>); attendance is not required. The purpose of the conference will be to clarify the contents of the solicitation in order to prevent any misunderstanding of the State of Arizona’s position. Any doubt as to the requirements of the solicitation or any apparent omission or discrepancy should be presented to the State at the conference. The State of Arizona will then determine the appropriate action necessary, if any, and issue a written amendment to the solicitation if required. Oral statements or instructions will not constitute an amendment to the solicitation.

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, or this document in an alternative format, by contacting the State Procurement Office. Requests should be made as early as possible to allow sufficient time to arrange for accommodation.



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## 3.0 Offer Preparation

- 3.1 Online Documents** The Solicitation Documents are only provided online in ProcureAZ; State will not provide any printed copies or other formats.
- 3.2 Electronic Submissions** When submitting an Offer, only include files that are Microsoft Word documents, Excel workbooks, or PowerPoint presentations and Adobe Acrobat documents. Obtain advance approval before submitting files in any other format.
- 3.3 Deviations in Offer** When submitting an Offer, flag clearly any deviations from the Specifications or other Solicitation technical requirements documents. Any un-flagged deviation will be deemed void upon submission.
- NOTE: Deviations are technical exceptions of a significant but not material nature, typically having to do with part/model numbers, details of attachments, mountings, clearances, internal configurations, etc., and are not to be confused with the material exceptions covered in paragraph 3.5.
- 3.4 Evidence of Intent** Every one of your Offers must contain Attachment 1 [Offer and Acceptance Form] with a signature by your duly authorized officer, executive, principal, or agent. The signature will be deemed to signify your intent to be bound by that Offer and the terms of the Solicitation, and your representation that the information you have provided in that Offer is true and accurate.
- 3.5 Exceptions to Solicitation Documents** If you are submitting an Offer conditioned on exceptions to the Solicitation Documents, indicate "NO" on Attachment 5-B [Conformance Statement] **and also indicate that exceptions are being taken under the "Terms & Conditions" tab for the Solicitation in ProcureAZ.** Any exceptions taken elsewhere in an Offer or any of your preprinted or standard terms will be void in that Offer and without force or effect in any resulting contract.
- 3.6 Insurance and Bonds** Provide the evidence of insurance availability, evidence of insurance in place, evidence of bonding capacity, bonds in hand, or other security that are called for in Attachment 5-C [Insurance and Bonding Evidence].
- If you intend to withhold or redact any element of your evidence of insurance policy compliance required by Section 6.2 of the Special Terms and Conditions [Contractor Insurance Requirements] on the grounds that it is confidential information, then **you must claim it as such and submit the necessary substantiated justification with each Offer using Attachment 5-A [Designation of Confidential Information]**.
- Unless Procurement Officer has determined that your evidence documentation, or some or all your insurance program, is confidential information under paragraph 4.7, refusing after contract award to provide the complete, un-redacted copies of policies as called for in that exhibit will be a material breach of the Contract.
- 3.7 Identification of Taxes in Offer** State is subject to Arizona Transaction Privilege Tax as well as certain local sales/use taxes, as described in the Contract Terms and Conditions.
- 3.8 Excise Tax** State is exempt from certain federal excise tax on manufactured goods; State will provide the necessary exemption certificates as evidence to the extent exemption applies to the Work.



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### 3.9 Tax Identification

You must provide to State your federal employer identification number or social security number for the purposes of reporting monies paid under the Contract to appropriate taxing authorities. The submission is mandatory under 26 U.S.C. § 6041A. If the identifier provided is a social security number, State shall only use it for tax reporting purposes and only share it with appropriate government officials.

### 3.10 Disclosure

If you are submitting an Offer despite having been debarred, suspended or otherwise lawfully precluded from participating in any public procurement activity, including being disapproved as a subcontractor with any federal, state or local government, or if any such preclusion from participation from any public procurement activity is currently pending, then you must provide with that Offer the name and address of the governmental unit, the effective date, duration, and circumstances of the suspension, debarment, or other preclusion, and your justification for State to consider the Offer despite the suspension, debarment, or other preclusion. Include in your disclosure any suspension, debarment, or other preclusion that is pending, but indicate that it is pending.

### 3.11 Federal Immigration Laws

By signing an Offer, you will be deemed to have represented that both you and all your proposed subcontractors are in compliance with federal immigration laws and regulations relating to the immigration status of their personnel. State may, at its discretion, demand evidence of compliance during Evaluation, which you must provide promptly. Not providing the evidence will be grounds for Procurement Officer to determine that the Offer is Not Susceptible for Award.

### 3.12 Cost of Offer Preparation

State will not reimburse to you or any of your prospective subcontractors, suppliers, or consultants any costs associated with responding to the Solicitation.

### 3.13 Offshore Performance of Work Prohibited

Any services that are described in the specifications or scope of work that directly serve the State of Arizona or its clients and involve access to secure or sensitive data or personal client data shall be performed within the defined territories of the United States. Unless specifically stated otherwise in the specifications, this paragraph does not apply to indirect or 'overhead' services, redundant back-up services or services that are incidental to the performance of the contract. This provision applies to work performed by subcontractors at all tiers. Offerors shall declare all anticipated offshore services in the proposal.

## 4.0 Submission of Offer

### 4.1 Required Offer Content

**Submit all of the Initial Offer content called for in Section 3-B: Offer Forms (Attachments). To be Responsive, each Revised Offer or a Best and Final Offer must contain all of the Attachments indicated in the applicable Procurement Officer request for Revised Offer or request for Best and Final Offer. If Procurement Officer does not request that a Revised Offer or Best and Final Offer include revision of an Attachment from its initial or previously-revised form, as applicable, then (1) Offeror shall not submit any revision of that Attachment with the Revised Offer or a Best and Final Offer, and Procurement Officer will disregard any such unrequested revision and (2) that Attachment be valid in its initial or previously-revised form, as applicable, for the duration of the Revised Offer or Best and Final Offer validity period.**

### 4.2 Attachment Forms

If an Attachment indicates that a "Form" is being provided for an Attachment, then the Solicitation includes the required form and format for submitting the Attachment. No other form or format will be accepted, and your Offer can be determined to be Not Susceptible for Award if you submit an unofficial form.



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If, however, the Solicitation Documents indicate that you are allowed to attach additional documents regarding a particular question or line item, then doing so will be acceptable so long as the filled-out Attachment clearly states “See Attachment X Supplement (#1 of 2)”, etc., and the additional document is clearly marked as “Attachment X Supplement (#1 of 2),” etc.

NOTE (1): Each Form has a blank space to list your Attachment Supplements.

NOTE (2): You must upload each such “additional” document as an individual file and name the file to match the document title.

NOTE (3): Attachment Forms cannot be filled-in directly in ProcureAZ; they must be downloaded, edited, and then uploaded (referred to as “attachments” in ProcureAZ) as part of each Offer.

NOTE (4): Do not include non-specific marketing materials in an Offer. If something is not specifically called for, then including it will not be helpful during Evaluation, and might in fact be grounds for down-grading if it does not address your experience and capacity to carry out the work for this Solicitation.

#### 4.3 Pricing

If there are specific “Items” (line items) for the Solicitation in ProcureAZ, then submit pricing for the Offer directly in ProcureAZ for each such Item.

If a Pricing Document has been provided as an Attachment Form, then submit pricing for the Offer in the indicated blanks in that Attachment.

If no specific pricing input or form has been provided with the Solicitation, then submit pricing for the Offer in the form and format specified in [Attachment 4 \[Pricing Document\]](#). If nothing is specified or if no Attachment 4 is included in the Solicitation documents, then submit pricing for the Offer in a form and format of your choosing that coherently and comprehensively presents the pricing being offered.

#### 4.4 Submission

**Submit each Offer online in ProcureAZ at <https://procure.az.gov> before the “Bid Opening Date” indicated for the “Solicitation No.” at the top of these Instructions to Offerors.** State will not consider a proposal submitted by any other method other than ProcureAZ, and it will be deemed void upon submission. By A.A.C. R2-7-C307, State will not consider later offers. State will give no extension or grace period for delays or incomplete proposals caused by internet connectivity problems, file uploading difficulties, or misunderstanding of the requirements or procedures for online submission in ProcureAZ. If your proposal is not submitted correctly, completely, and in conformance to these Instructions herein, then Procurement Officer may determine it Not Susceptible for Award.

NOTE: Using ProcureAZ requires a certain level of technical competency; select your staff to submit proposals and handle other Solicitation general matters in ProcureAZ carefully, since the ProcureAZ Help Desk cannot do any of the required actions for you.

#### 4.5 Solicitation Amendments

Acknowledge each Solicitation Amendment in ProcureAZ. By A.A.C. R2-7-C303(C), you must acknowledge every Solicitation Amendment issued as of the due date and time for an Offer to be Responsive. If you have submitted your proposal early, you must be alert for subsequent Solicitation Amendments – if one is issued after your submission but before offer due date and time, then the Procurement Officer may determine the Offer to be Not Responsive if you have not acknowledged it.

#### 4.6 Amending or Withdrawing

You cannot amend or withdraw a submitted proposal after the offer due date and time unless expressly permitted under applicable law.



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#### 4.7 Confidential Information

If you believe that a portion of your Offer (or a protest or other correspondence) contains a trade secret or other manner of your proprietary information, you must:

- (a) indicate on Attachment 5-A [Designation of Confidential Information] that your proposal contains such claimed confidential information; and
- (b) designate clearly throughout the Offer each instance of that trade secret or other proprietary information in the other portions of your proposal using the term "confidential."

Simply indicating that the proposal contains confidential information is not sufficient to claim the protections under A.A.C. R2-7-C317 – Attachment 5-A must be accompanied by a detailed explanation as to why **each item or category of items** in the proposal should be designated confidential information.

Procurement Officer shall review your claim of confidentiality and provide a written determination; until a written determination has been made, Procurement Officer shall not disclose the claimed information to anyone who does not have a legitimate State interest. If Procurement Officer denies the claim of confidentiality, you may appeal the determination to the State Procurement Administrator within the time specified in the determination.

NOTE: Contract terms and conditions, pricing, and information generally available to the public are not and will not be designated confidential information.

#### 4.8 Public Record

Once submitted and opened by Procurement Officer, your Offer is a public record and must be retained by State for 6 (six) years. All offers will be available for public inspection in ProcureAZ after the resulting contracts have been awarded, except for any portions that were determined to be confidential information.

Procurement Officer shall make the names of Persons who submitted offers available in ProcureAZ promptly after the opening date.

#### 4.9 Offeror Certification

By signing the Offer and Acceptance Form (or other official contract form specified by Procurement Officer), you will be deemed to have certified that:

- (a) you did not engage in collusion or other anti-competitive practices in connection with the preparation or submission of your Offer; and
- (b) you do not discriminate against any employee or applicant for employment or person to whom you provide services because of race, color, religion, sex, national origin, or disability, and that you comply with an applicable federal, state, and local laws and executive orders regarding employment.

## 5.0 Responsibility; Responsiveness and Acceptability

#### 5.1 Responsibility

In accordance with A.R.S. 41-2534(G), A.A.C. R27-C312 and R2-7-C316, the State shall consider the following in determining Offeror's responsibility, as well, as the responsiveness and acceptability of their proposals. The State will consider, but is not limited to, the following in determining an Offeror's responsibility as well as susceptibility to Contract Award:

- (a) Whether the Offeror has had a contract within the last five (5) years that was terminated for cause due to breach or similar failure to comply with the terms of the contract;



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- (b) Whether the Offeror’s record of performance includes factual evidence of failure to satisfy the terms of the Offeror’s agreements with any party to a contract. Factual evidence may consist of documented vendor performance reports, customer complaints and/or negative references;
- (c) Whether the Offeror is legally qualified to contract with the State and the Offeror’s financial, business, personnel, or other resources, including subcontractors;
- (d) Legally qualified includes if the vendor or if key personnel have been debarred, suspended or otherwise lawfully prohibited from participating in any public procurement activity, including but not limited to, being disapproved as a subcontractor of any public procurement unit or other governmental body.
- (e) Whether the Offeror promptly supplied all requested information concerning its responsibility;
- (f) Whether the Offer was sufficient to permit evaluation by the State, in accordance with the evaluation criteria identified in this Solicitation or other necessary offer components. Necessary offer components include: attachments, documents or forms to be submitted with the offer, an indication of the intent to be bound, reasonable or acceptable approach to perform the Scope of Work, signed Solicitation Amendments, references to include experience verification, adequacy of financial/business/personal or other resources to include a performance bond and stability including subcontractors and any other data specifically requested in the Solicitation;
- (g) Whether the Offer was in conformance with the requirements contained in the Scope of Work, Terms and Conditions, and Instructions for the Solicitation and its Amendments, including the documents incorporated by reference;
- (h) Whether the Offer limits the rights of the State;
- (i) Whether the Offer includes or is subject to unreasonable conditions, to include conditions upon the State or necessary for successful Contract performance. The State shall be the sole determiner as to the reasonableness of a condition;
- (j) Whether the Offer materially changes the contents set forth in the Solicitation, which includes the Scope of Work, Terms and Conditions, or Instructions; and,
- (k) Whether the Offeror provides misleading or inaccurate information.

## 5.2 Responsiveness and Acceptability

Proposals that do not contain information sufficient to evaluate the proposal in accordance with the factors identified in the solicitation or other necessary proposal components may not be considered responsive and/or acceptable. Necessary components include an indication of the Offeror’s intent to be bound, price proposal, solicitation amendments, bond and reference data as required.

Proposal Content. The Offeror shall make a firm commitment to provide services as required and proposed.

- The material contained in the Offer shall be relevant to the service requirements stated in the solicitation.
- It is to be submitted in a sequence that reflects the scope of work section of this document.
- It is to include information relevant to the designated evaluation criteria.
- Failure to include the requested information may have a negative impact on the evaluation of the Offeror’s proposal.



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### 5.3 Eligibility for Evaluation and Negotiation

If Procurement Officer determines an offeror is Not Responsible, then he or she is not permitted by A.A.C. R2-7-C314 to give further consideration to its offer or include it in any Negotiation or make Evaluation of its offer. If, however, Procurement Officer determines that an offer is Responsive (i.e., there is no applicable determination of Not Susceptible for Award), then he or she is obliged by A.A.C. R2-7-C314 to make Evaluation of it and include the offeror in the immediate round of Negotiation (if there is any Negotiation).

If Procurement Officer determines subsequently that your Revised Offer is Not Susceptible for Award by virtue of comparison to other revised offers per A.A.C. R2-7-C314(A)(3), then he or she will not include you in any further Negotiation. For clarity of intent, the foregoing means that Procurement Officer may reduce the number of offers that are "susceptible for award" with each successive round of Negotiation, since the purpose of Negotiation is to achieve best value for State.

## 6.0 Evaluation of Offers

### 6.1 Offer Validity Period

By submitting an Offer, you agree to hold it open for the validity period specified in the Solicitation Summary. If no validity period is specified therein, then you shall hold your Offer open for 180 (one hundred eighty) days. The specified or default validity period (whichever applies) re-starts upon submission of each Revised Offer or a Best and Final Offer.

### 6.2 Clarifications

Upon receipt and opening of proposals submitted in response to this solicitation, the State may request oral or written clarifications, including demonstrations or questions and answers, for the sole purpose of information gathering or for eliminating minor informalities or correcting nonjudgmental mistakes in proposals. Clarifications shall not otherwise afford Offerors the opportunity to alter or change their proposal.

### 6.3 Oral Presentations

The State may request oral presentations. If requested, the Offeror shall be available for oral presentations with no more than ten (10) business days advance notice. Participants in the oral presentations should include the Offeror's key persons. Such oral presentations shall not otherwise afford an Offeror the opportunity to alter or change its Offer.

### 6.4 Cost or Pricing Data

Submit any cost or pricing data promptly that Procurement Officer requests under A.R.S. § 41-2543 per A.A.C. R2-7-702(B)(2). Procurement Officer may make the following preconditions for eligibility and award:

- (a) submission of appropriate cost or pricing data under A.A.C. R2-7-704;
- (b) determination that the submitted cost or pricing data demonstrates that pricing is fair and reasonable under A.A.C. R2-7-702(A); and
- (c) determination that the data is not defective under A.A.C. R2-7-705.

### 6.5 Evaluation Criteria

In accordance with the Arizona Procurement code A.R.S. § 41-2534, awards shall be made to the responsible Offeror(s) whose proposal is determined in writing to be the most advantageous to the State based upon the evaluation criteria listed below. The evaluation factors are listed in their relative order of importance.

- 6.5.1 Methodology;
- 6.5.2 Capacity of Offeror, Experience; and
- 6.5.3 Cost



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- 6.6 Negotiations**

In accordance with A.R.S. § 41-2534, after the initial receipt of proposals, the Procurement Officer may conduct discussions with those Offerors who submit proposals determined by the State to be reasonably susceptible of being selected for award.

Procurement Officer will request a best and final offer from any offerors with whom negotiation has been conducted, provided that, State may make award made without any Negotiation and therefore every offeror is forewarned to always submit its offer complete and on the most favorable terms initially, and not to assume any opportunity for Negotiation.
- 6.7 Financial Stability**

You must be able to substantiate your financial stability to State’s satisfaction as a precondition of any contract award. Procurement Officer may demand documentation such as current and audited financial statements, including income and balance sheets, directly from you or may obtain reports from independent financial rating services. Not providing the evidence will be grounds for Procurement Officer determining your Offer is Not Susceptible for Award.
- 6.8 Consideration of Exceptions**

Procurement Officer may determine that your Offer is Not Susceptible for Award if it is conditioned on an exception to a material aspect of the Solicitation. Even if Procurement Officer determines that an exception is one that does not merit Not Susceptible for Award determination, he or she may down-grade your Offer in Evaluation if the exception is significant.
- 6.9 Consideration of Deviations**

Procurement Officer may down-grade your Offer in Evaluation if it contains deviations that, in his or her determination, materially reduce the value to State of affected Materials or Services across the life-cycle thereof.
- 6.10 Consideration of Prompt Payment Discount**

Procurement Officer may credit any proposed prompt payment discounts for the purpose of evaluating offer prices.
- 6.11 Consideration of Taxes**

Procurement Officer shall not include Arizona Transaction Privilege Tax and other sales/use taxes for the purpose of evaluating offer prices.
- 6.12 Consideration of Cost**

Regardless of the relative order assigned to cost in the Solicitation Summary, cost is an essential consideration in every award State makes; State’s intent is always to obtain the best pricing available and it strives to make its evaluations be a straightforward comparison of best value between the responsible and responsive proposals as far as possible to the extent permissible under the Arizona Procurement Code.
- 6.13 Unit Price Prevails**

In the case of discrepancy in your Offer between a unit price or rate and an extension of that unit price or rate, the unit price or rate will prevail.
- 6.14 Waiver and Rejection**

Notwithstanding any other provision of the Solicitation Documents, State reserves the right to waive any minor informality, reject any or all offers or portions thereof or cancel the Solicitation.



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### 7.0 Award of Contract

- 7.1 Best Advantage to State** Under A.A.C. R2-7-C317, contracts will be awarded to the responsible offeror whose offer is determined to be most advantageous to the State based on the stated evaluation criteria.
- 7.2 Number of Types of Awards** State may make multiple awards or to award contracts by individual line items or alternates, by group of line items or alternates, or to make an aggregate award, or regional awards, whichever is determined to be most advantageous to State.
- 7.3 Contract Inception** Your Offer does not constitute a contract nor does it confer any right on you to the award of a contract. A contract is not created until your Offer has been accepted for State by Procurement Officer's signature on the Offer and Acceptance Form. Notice of award or of intent to award will not constitute State's acceptance of your Offer.
- 7.4 Contract Document Consolidation** State may, at its option, consolidate the resulting contract documents after contract award. Examples of such consolidation are reorganizing Solicitation Documents and those components of the Accepted Offer not pertaining to the contract's operation and excluding any components of the Accepted Offer that were not awarded. Contract document consolidation will not, however, include or be construed to include any materially change the Solicitation or the Contract.

### 8.0 Solicitation or Award Protests

Any protest must comply with and be resolved according to Arizona Revised Statutes Title 41, Chapter 23, Article 9, and rules adopted thereunder. Protests must be in writing and be filed with both Procurement Officer and the State Procurement Administrator. Protest of the Solicitation must be received before the offer due date and time. Protest of a proposed award or of an award must be received within 10 (ten) days after Procurement Officer makes the procurement file available for public inspection. In either case, the protest must include:

1. the name, address, email address and telephone number of the interested party;
2. signature of the interested party or its representative;
3. identification of the purchasing agency and the solicitation or contract number;
4. a detailed statement of the legal and factual grounds of the protest including copies of relevant documents; and
5. the form of relief being requested.

End of Section 3-A



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Section 3-B: Offer Forms (Attachments)

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## Attachment 1 Offer and Acceptance Form

**SUBMISSION OF OFFER:** Undersigned hereby offers and agrees to provide **Multi-functional Devices, including Supplies and Maintenance** in compliance with the Solicitation indicated above and our Offer indicated by the latest dated version below:

Initial Offer:	1.	<input checked="" type="checkbox"/>						
		date	initial					
Revised Offers:	2.	<input checked="" type="checkbox"/>		3.	<input checked="" type="checkbox"/>		4.	<input checked="" type="checkbox"/>
		date #1	initial	date #1	initial	date #1	initial	
	5.	<input checked="" type="checkbox"/>		6.	<input checked="" type="checkbox"/>		7.	<input checked="" type="checkbox"/>
		date #4	initial	date #5	initial	date #6	initial	
Best and Final Offer:	8.	<input checked="" type="checkbox"/>						
		date	initial					

Offeror company name

Signature of person authorized to sign Offer Initials

Address

Printed name and title

City | State | ZIP

Contact name and title

Federal tax identifier (EIN or SSN)

Contact Email Address  Contact phone number

**CERTIFICATION:** By signature in the above, Offeror certifies that it:

- will not discriminate against any employee or applicant for employment in violation of Federal Executive Order 11246, [Arizona] State Executive Order 2009-9 or A.R.S. §§ 41-1461 through 1465;
- has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted offer. Failure to provide a valid signature affirming the stipulations required by this clause will result in rejection of the Offer. Signing the Offer with a false statement will void the Offer, any resulting contract, and may be subject to legal penalties under law;
- complies with A.R.S. § 41-3532 when offering electronics or information technology products, services, or maintenance; and
- is not debarred from, or otherwise prohibited from participating in any contract awarded by federal, state, or local government.

**ACCEPTANCE OF OFFER:** State hereby accepts the initial Offer, Revised Offer, or Best and Final Offer identified by number **ADSP018-00008023** at the top of this form, and which was dated **date** (the Accepted Offer). Offeror is now bound (as Contractor) to carry out the Work under the attached Contract, of which the Accepted Offer forms a part. Contractor is cautioned not to commence any billable work or to provide any material or perform any service under the Contract until Contractor receives the applicable Order or written notice to proceed from Procurement Officer.

State's Contract No. is: **ADSP0##-#####**

The effective date of the Contract is: **date**

Contract awarded **date**

Procurement Officer signature

Procurement Officer, Cori Masters



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### Attachment 2-A Experience and Capacity Questionnaire

STATE MAY DETERMINE YOUR PROPOSAL IS NON-RESPONSIVE IF YOU DO NOT ANSWER ALL QUESTIONS FULLY.

The Offeror shall provide a narrative response to each question that demonstrates their understanding of the Scope of Work requirements and describes your company's overall method of approach for providing the service stated in this solicitation. If there is a question that is not applicable to the services required by the Scope of Work, you may mark it N/A.

#### EXPERIENCE AND CAPACITY QUESTIONS:

**Question 1: Integrity of Company Structure - Disclosure**

Provide a statement providing full disclosure of any public sector contracts terminated for convenience or cause in the past 5 years.

**Offeror Response:**

**Question 2: Integrity of Company Structure - Disclosure**

Provide a statement documenting all open or pending litigation initiated by the Offeror or where the Offeror is a dependent or party in litigation that may have a material impact on Offeror's ability to deliver the contracted services.

**Offeror Response:**

**Question 3: Integrity of Company Structure - Disclosure**

Explain any involvement in any lawsuit the Offeror has had in the last three (3) years. Specifically identify any lawsuits that are currently in litigation or pending litigation and/or any class action lawsuits. Offeror shall disclose any court, administrative judgements, and/or orders issued against the company within the last three (3) years prior to submission to this Proposal.

**Offeror Response:**

**Question 4: Integrity of Company Structure - Disclosure**

Provide a statement whether or not there are any pending Securities Exchange Commission investigations involving the Offeror, and if such are pending or in progress, an explanation providing relevant details and an attached opinion of counsel as to whether the pending investigation(s) may impair the Offeror's performance in a Contract under this RFP.

**Offeror Response:**

**Question 5: Integrity of Company Structure - Disclosure**



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Provide a statement whether or not, in the last ten (10) years, the Offeror or a principal has filed (or had filed against it) any bankruptcy or insolvency proceeding, whether voluntary or involuntary, or undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors, and if so, an explanation providing relevant details.

**Offeror Response:**

**Question 6: Integrity of Company Structure**

Provide your company's formal disaster recovery plan.

**Offeror Response:**

**Question 7: Integrity of Company Structure and Financial Reporting**

Submit a notarized statement from a Certified Public Accountant demonstrating the company's financial stability for the two (2) most recently completed fiscal years. If the statements being provided by the Offeror are that of a parent or holding company, additional certification must be provided for the entity/organization directly responding to this solicitation.

**Offeror Response:**

**Question 8: Integrity of Company Structure and Financial Reporting**

Submit a statement indicating that the CEO and/or CFO has taken personal responsibility for the thoroughness and correctness of any/all financial information supplied with this proposal. The particular areas of interest in considering corporate responsibility include the following items: separation of audit functions from corporate boards and board members, if any, the manner in which the organization assures board integrity, and the separation of audit functions and consulting services.

**Offeror Response:**

**Question 9: Integrity of Company Structure and Financial Reporting**

Prove the last three (3) years of audited financial statements (including the income statement and balance sheets). Reminder, mark confidential if the information is not public.

**Offeror Response:**

**Question 10: Length of time delivering these type of services**

State how long your company has been delivering the services and technologies proposed in this RFP. Provide specific clients and detailed examples. Include a description of major issues that have been encountered relative to these services and how you resolved them.

**Offeror Response:**

**Question 11: Organizational Structure**



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Briefly detail any organizational or operational changes your firm had undertaken in the past three (3) years, including any acquisitions or mergers, any divestitures of significant operating components or other significant changes that have been completed or are contemplated.

**Offeror Response:**

**Question 12: Proposal**

Describe factors or reasons we should consider Offeror more favorably than your competitors (e.g. additional value, added or ancillary services the firm provides).

**Offeror Response:**

**Question 13: Public Sector Experience**

Do you currently have contracts with any of the State of Arizona agencies or any other States? If so, please provide the agency name, contract number, and a brief description of the contract's scope of services.

**Offeror Response:**

**Question 14: Software Compatibility**

Please list all Advanced Scanning Interface Software (both Class 1 and 2) that your proposed hardware supports.

**Offeror Response:**



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## EXPERIENCE REFERENCES:

The State intends to conduct reference checks for account referenced provided by Offerors. It may, at its sole discretion, contact additional clients not presented as references.

Offerors shall provide at least three (3) client references for assignments that replicate or mirror the requirements of this RFP. At least one (1) of the projects referenced must be Arizona government related. ***All assignments shall be for assignments received and completed within the last five (5) years.***

1	Client Company/Address	Contact	Begin Date	End Date
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Phone Number	Email Address		
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Project Scope and deliverables, include number of resources engaged in project, timeline of project(major milestones)				
<input checked="" type="checkbox"/>				
List job positions provided and technologies utilized to supplement services.				
<input checked="" type="checkbox"/>				

2	Client Company/Address	Contact	Begin Date	End Date
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Phone Number	Email Address		
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Project Scope and deliverables, include number of resources engaged in project, timeline of project(major milestones)				
<input checked="" type="checkbox"/>				
List job positions provided and technologies utilized to supplement services.				
<input checked="" type="checkbox"/>				



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<b>3</b>	Client Company/Address	Contact	Begin Date	End Date
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Phone Number	Email Address		
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Project Scope and deliverables, include number of resources engaged in project, timeline of project(major milestones)				
<input checked="" type="checkbox"/>				
List job positions provided and technologies utilized to supplement services.				
<input checked="" type="checkbox"/>				

<b>4</b>	Client Company/Address	Contact	Begin Date	End Date
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Phone Number	Email Address		
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Project Scope and deliverables, include number of resources engaged in project, timeline of project(major milestones)				
<input checked="" type="checkbox"/>				
List job positions provided and technologies utilized to supplement services.				
<input checked="" type="checkbox"/>				

**ATTACHMENT 2-A SUPPLEMENTS:**

(Insert as required and list here or type "None" on first line)

	Title	Document Date	No. of pages	Purpose in Offer
1.	Enter or type "None"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.	Enter or delete row if not needed			
3.	Enter or delete row if not needed			
4.	Enter or delete row if not needed			
5.	Enter or delete row if not needed			
6.	Enter or delete row if not needed			
7.	Enter or delete row if not needed			

End of Attachment 2-A



# Request for Proposal

Solicitation No.  
ADSP018-00008023

Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

## Attachment 2-B Organization Profile

STATE MAY DETERMINE YOUR PROPOSAL IS NON-RESPONSIVE IF YOU DO NOT ANSWER ALL QUESTIONS FULLY.

### ORGANIZATION PROFILE

<b>Firm Name</b>	<input checked="" type="checkbox"/>	<b>Year established</b>	<input checked="" type="checkbox"/>	
<b>Principal address</b> (street, city, state)	<input checked="" type="checkbox"/>			
<b>Entity type:</b>	<input checked="" type="checkbox"/>	<b>Structure:</b>	<input checked="" type="checkbox"/>	
<b>Branch or Division:</b>	<input checked="" type="checkbox"/>	<b>Parent:</b>	<input checked="" type="checkbox"/>	
Years of experience providing goods similar in type and quantity as required by this Solicitation.			<input checked="" type="checkbox"/>	
Years of experience performing services similar in size and scope as required by this Solicitation.			<input checked="" type="checkbox"/>	
Years the organization has conducted business in Arizona.			<input checked="" type="checkbox"/>	
Contract Representatives to Contact				
	Name	Title	Telephone Number	E-Mail Address
8.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Licenses/Certifications				
	Description	Issuer	Number	Expiration
11.				
12.				
13.				
14.				
15.				
16.				
17.				



# Request for Proposal

Solicitation No.  
ADSP018-00008023

Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

Financial Information (attach financial statements with income/balance sheets as Supplements)				
	Rating/Issuer	Score/Rank	Date	
18.				
19.				
20.				
Capacity				
	Location	Work Performed	Number Staff	Capacity
21.				
22.				
23.				
24.				
25.				

**ATTACHMENT 2-B SUPPLEMENTS:**

(Offeror to insert as required and list here or type "None" on first line)

	Title	Document Date	No. of pages	Purpose in Offer
26.	Enter or type "None"	x	x	x
27.	Enter or delete row if not needed			
28.	Enter or delete row if not needed			
29.	Enter or delete row if not needed			
30.	Enter or delete row if not needed			
31.	Enter or delete row if not needed			
32.	Enter or delete row if not needed			

End of Attachment 2-B



# Request for Proposal

Solicitation No.  
ADSP018-00008023

Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

## Attachment 3-A Method Proposal (Method of Approach)

Please provide your proposal as attachments and note the documents and purpose below.

### ATTACHMENT 3-A SUPPLEMENTS:

(Offeror to insert as required and list here or type "None" on first line)

	Title	Document Date	No. of pages	Purpose in Offer
33.	Enter or type "None"	x	x	x
34.	Enter or delete row if not needed			
35.	Enter or delete row if not needed			
36.	Enter or delete row if not needed			
37.	Enter or delete row if not needed			
38.	Enter or delete row if not needed			
39.	Enter or delete row if not needed			

End of Attachment 3-A



# Request for Proposal

Solicitation No.  
ADSP018-00008023

Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

## Attachment 3-C Proposed Subcontractors

Check "NO" if you WILL NOT subcontract any portion of the Work and will therefore be carrying out all of the Work with your own personnel.

NO, the Offeror will not subcontract any portion of the Work.

If you WILL subcontract any portion of the Work, check "YES" below and list name of persons or companies you propose to use as subcontractors.

1. Fill in the information for every significant subcontractor – indicate the type of work the subcontractor will perform under the Contract, and their approximate percentage of the total Contract work.
2. Provide copies of relevant certifications each one possesses in the Attachment Supplements section.
3. Provide description of quality assurance methods and quality control measures that you will use to ensure that Subcontractor work meets the Contract requirements.
4. State may demand additional information about proposed subcontractors as a precondition of award.

YES, the Offeror will use the Subcontractors listed below:

	Name and contact information	Small Business	Work to be performed	%
40.	Name	select		
41.	Name	select		
42.	Name	select		
43.	Name	select		
44.	Name	select		
45.	Name	select		
46.	Name	select		
47.	Name	select		
48.	Name	select		
49.	Name	select		

### ATTACHMENT 3-C SUPPLEMENTS:

(Offeror to insert as required and list here or type "None" on first line)

	Title	Document Date	No. of pages	Purpose in Offer
50.	Enter or type "None for Sub #1"	x	x	x
51.	Enter or type "None for Sub #2"	x	x	x
52.	Enter or type "None for Sub #3"	x	x	x



# Request for Proposal

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Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

	Title	Document Date	No. of pages	Purpose in Offer
53.	Enter or type "None for Sub #4"	x	x	x
54.	Enter or type "None for Sub #5"	x	x	x
55.	Enter or type "None for Sub #6"	x	x	x
56.	Enter or type "None for Sub #7"	x	x	x
57.	Enter or type "None for Sub #8"	x	x	x
58.	Enter or type "None for Sub #9"	x	x	x
59.	Enter or type "None for Sub #10"	x	x	x

End of Attachment 3-C



# Request for Proposal

Solicitation No.  
ADSP018-00008023

Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

## Attachment 3-D Boycott of Israel Disclosure

All materials submitted as part of a response to a solicitation are subject to Arizona public records law and will be disclosed if there is an appropriate public records request at the time of or after the award of the contract. Recently legislation has been enacted to prohibit the state from contracting with companies currently engaged in a boycott of Israel. To ensure compliance with A.R.S. §35-393.01. This form must be completed and returned with the response to the solicitation and any supporting information to assist the State in making its determination of compliance.

As defined by A.R.S. §35-393.01:

1. "Boycott" means engaging in a refusal to deal, terminating business activities or performing other actions that are intended to limit commercial relations with Israel or with persons or entities doing business in Israel or in territories controlled by Israel, if those actions are taken either:
  - (a) In compliance with or adherence to calls for a boycott of Israel other than those boycotts to which 50 United States Code section 4607(c) applies.
  - (b) In a manner that discriminates on the basis of nationality, national origin or religion and that is not based on a valid business reason.
2. "Company" means a sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company or other entity or business association, and includes a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate.
3. "Direct holdings" means all publicly traded securities of a company that are held directly by the state treasurer or a retirement system in an actively managed account or fund in which the retirement system owns all shares or interests.
4. "Indirect holdings" means all securities of a company that are held in an account or fund, including a mutual fund, that is managed by one or more persons who are not employed by the state treasurer or a retirement system, if the state treasurer or retirement system owns shares or interests either:
  - (a) together with other investors that are not subject to this section.
  - (b) that are held in an index fund.
5. "Public entity" means this State, a political subdivision of this State or an agency, board, commission or department of this State or a political subdivision of this State.
6. "Public fund" means the state treasurer or a retirement system.
7. "Restricted companies" means companies that boycott Israel.
8. "Retirement system" means a retirement plan or system that is established by or pursuant to title 38.

**All offerors must select one of the following:**

\_\_\_\_\_ My company **does not** participate in, and agrees not to participate in during the term of the contract, a boycott of Israel in accordance with A.R.S. §35-393.01. I understand that my entire response will become public record in accordance with A.A.C. R2-7-C317.

\_\_\_\_\_ My company **does** participate in a boycott of Israel as defined by A.R.S. §35-393.01.

By submitting this response, proposer agrees to indemnify and hold the State, its agents and employees, harmless from any claims or causes of action relating to the State's action based upon reliance on the above representations, including the payment of all costs and attorney fees incurred by the State in defending such an action.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Signature of Person Authorized to Sign

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

End of Attachment 3-D



## Request for Proposal

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Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

**State Procurement Office**

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

Attachment 4

Pricing Sheet

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Please refer to ProcureAZ file "ADSP018-00008023 – Attachment 4". Offeror shall complete and upload spreadsheet as part of proposal.

End of Attachment 4



# Request for Proposal

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Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

## Attachment 7-A Confidential Information Designation

All materials submitted as part of a response to a solicitation are subject to Arizona public records law and will be disclosed if there is an appropriate public records request at the time of or after the award of the contract. Recognizing there may be materials included in a solicitation response that are proprietary or a trade secret, a process is set out in A.A.C. R2-7-103 (copy attached) that will allow qualifying materials to be designated as confidential and excluded from disclosure. For purposes of this process the definition of "trade secret" will be the same as that set out in A.A.C. R2-7-101(52).

Complete this form return it with your Offer along with the appropriate supporting information to assist State in making its determination as to whether any of the materials submitted as part of your Offer should be designated confidential because the material is proprietary or a trade secret and therefore not subject to disclosure.

STATE WILL NOT CONSIDER ANY MATERIAL IN YOUR OFFER "CONFIDENTIAL" UNLESS DESIGNATED ON THIS FORM.

Check one of the following – if neither is checked, State will assume that as equivalent to "DOES NOT":

<input type="radio"/>	This response DOES NOT contain proprietary or trade secret information. I understand that my entire response will become public record in accordance with A.A.C. R2-7-C317.
<input type="radio"/>	This response DOES contain trade secret information because it contains information that: <ol style="list-style-type: none"> <li>Is a formula, pattern, compilation, program, device, method, technique or process, AND</li> <li>Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; AND</li> <li>Is the subject of efforts by myself or my organization that are reasonable under the circumstances to maintain its secrecy.</li> </ol>

NOTE: Failure to attach an explanation may result in a determination that the information does not meet the statutory trade secret definition. All information that does not meet the definition of trade secret as defined by A.A.C. R2-7-101(52) will become public in accordance with A.A.C. R2-7-C317. State may make its own determination on materials in accordance with A.A.C. R2-7-103.

If State agrees with Offeror's designation of trade secret or confidentiality and the determination is challenged, the undersigned hereby agrees to cooperate and support the defense of the determination with all interested parties, including legal counsel or other necessary assistance.

By submitting this response, Offeror agrees that the entire Offer, including confidential, trade secret and proprietary information may be shared with an evaluation committee and technical advisors during the evaluation process. Offeror agrees to indemnify and hold State, its agents and employees, harmless from any claims or causes of action relating to State's withholding of information based upon reliance on the above representations, including the payment of all costs and attorney fees incurred by State in defending such an action.

<input checked="" type="checkbox"/>	Offeror Company Name	<input checked="" type="checkbox"/>	Signature of Authorized Person
<input checked="" type="checkbox"/>	Address	<input checked="" type="checkbox"/>	Printed Name



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Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

City

State

Zip

Title

### ATTACHMENT 7-A SUPPLEMENTS:

(Offeror to insert as required and list here or type "None" on first line)

	Title	Document Date	No. of pages	Purpose in Offer
1.	Enter or type "None"	x	x	x
2.	Enter or delete row if not needed			
3.	Enter or delete row if not needed			
4.	Enter or delete row if not needed			
5.	Enter or delete row if not needed			
6.	Enter or delete row if not needed			
7.	Enter or delete row if not needed			



## Request for Proposal

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Arizona Department of Administration

State Procurement Office

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Phoenix, AZ 85007

### *Copy of A.A.C. R2-7-103 [Confidential Information] as was current at time of Solicitation issuance*

PROVIDED FOR REFERENCE ONLY

- A. *If a person wants to assert that a person's offer, specification, or protest contains a trade secret or other proprietary information, a person shall include with the submission a statement supporting this assertion. A person shall clearly designate any trade secret and other proprietary information, using the term "confidential". Contract terms and conditions, pricing, and information generally available to the public are not considered confidential information under this Section.*
- B. *Until a final determination is made under subsection (C), an agency chief procurement officer shall not disclose information designated as confidential under subsection (A) except to those individuals deemed by an agency chief procurement officer to have a legitimate state interest.*
- C. *Upon receipt of a submission, an agency chief procurement officer shall make one of the following written determinations:*
- 1. The designated information is confidential and the agency chief procurement officer shall not disclose the information except to those individuals deemed by the agency chief procurement officer to have a legitimate state interest;*
  - 2. The designated information is not confidential; or*
  - 3. Additional information is required before a final confidentiality determination can be made.*
- D. *If an agency chief procurement officer determines that information submitted is not confidential, a person who made the submission shall be notified in writing. The notice shall include a time period for requesting a review of the determination by the state procurement administrator.*
- E. *An agency chief procurement officer may release information designated as confidential under subsection (A) if:*
- 1. A request for review is not received by the state procurement administrator within the time period specified in the notice; or*
  - 2. The state procurement administrator, after review, makes a written determination that the designated information is not confidential.*

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End of Attachment 7-A



# Request for Proposal

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Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

## Attachment 7-B Conformance Statements

STATE WILL NOT CONSIDER ANY EXCEPTIONS UNLESS DESIGNATED ON THIS FORM.

READ PARAGRAPH 6.8 OF THE INSTRUCTIONS TO OFFERORS BEFORE TAKING ANY EXCEPTIONS – TAKING EXCEPTIONS CAN BE GROUNDS FOR STATE REJECTING OR DOWN-GRADING YOUR OFFER IN EVALUATION.

### CONFORMANCE TO THE INSTRUCTIONS: (PART 1 OF THE SOLICITATION)

Check one of the following – if neither is checked, State will assume that as equivalent to “YES”:

- YES – Offeror acknowledges that it has read and understands the Solicitation Summary in Section 1-A of the Solicitation Documents and the Instructions to Offerors in Section 1-B of the Solicitation Documents and the and attests that its Offer complies with both.
- NO – Offeror acknowledges that it has read and understands the Solicitation Summary in Section 1-A of the Solicitation Documents and the Instructions to Offerors in Section 1-B of the Solicitation Documents, and attests that its Offer complies with both EXCEPT FOR the exceptions listed in **Attachment 7-B Supplement 1**.

### CONFORMANCE TO THE TECHNICAL DOCUMENTS: (PART 2 OF THE SOLICITATION)

Check one of the following – if neither is checked, State will assume that as equivalent to “YES”:

- YES – Offeror acknowledges that it has read and understands the Scope Document and the Pricing Document in Part 2 of the Solicitation Documents and attests that its Offer complies with both.
- NO – Offeror acknowledges that it has read and understands the Scope Document and the Pricing Document in Part 2 of the Solicitation Documents and attests that its Offer complies with both EXCEPT FOR the exceptions listed in **Attachment 7-B Supplement 2**.

### CONFORMANCE TO THE CONTRACT TERMS AND CONDITIONS: (PART 3 OF THE SOLICITATION)

Check one of the following – if neither is checked, State will assume that as equivalent to “YES”:

- YES – Offeror acknowledges that it has read and understands the Special Terms and Conditions and the Uniform Terms and Conditions, along with their respective Exhibits and Appendices, in Part 3 of the Solicitation Documents and attests that its Offer complies with both.
- NO – Offeror acknowledges that it has read and understand the Special Terms and Conditions and the Uniform Terms and Conditions, along with their respective Exhibits and Appendices in Part 3 of the Solicitation Documents and attests that its Offer complies with both EXCEPT FOR the exceptions listed in **Attachment 7-B Supplement 3**.



# Request for Proposal

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Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

**State Procurement Office**

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

ATTACHMENT 7-B Supplement No. 1:

## Exceptions to Instructions

Article / Paragraph or Exhibit Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
Section 1: Solicitation Details		
X	X	X
X	X	X
X	X	X
Section 3-B: Instructions to Offerors		
X	X	X
X	X	X
X	X	X

Company Name

Signature of Person Authorized to Sign



# Request for Proposal

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Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

**State Procurement Office**

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Phoenix, AZ 85007

ATTACHMENT 7-B Supplement No. 2:

## Exceptions to Technical and Commercial

Article / Paragraph or Exhibit Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
Section 2-A: Scope of Work (Technical Document)		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Section 2-B: Commercial Document		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Company Name

Signature of Person Authorized to Sign



# Request for Proposal

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Description:  
Multifunctional Devices, including Supplies and Maintenance

Arizona Department of Administration

State Procurement Office

100 N 15th Ave., Suite 402  
Phoenix, AZ 85007

ATTACHMENT 7-B Supplement No. 3:

## Exceptions to Contract Terms & Conditions

Article/ Paragraph or Exhibit Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
Section 2-C: Special Terms & Conditions		
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X

Article/ Paragraph or Appendix Reference	Proposed Changes / Alternate Language	Rationale for Proposed Change
Section 2-D: Uniform Terms & Conditions		
X	X	X
X	X	X
X	X	X

Company Name

Signature of Person Authorized to Sign

End of Attachment 7-B



**Request for Proposal**  
**Solicitation No.**  
**ADSP018-00008023**  
**Description:**  
**Multifunctional Devices, including Supplies and Maintenance**

Arizona Department of Administration  
**State Procurement Office**  
 100 N 15th Ave., Suite 402  
 Phoenix, AZ 85007

Attachment 10  
 Offer Checklist

STATE MAY DETERMINE YOUR PROPOSAL IS NON-RESPONSIVE IF YOU DO NOT SUBMIT ALL ATTACHMENTS.

	DOCUMENT	SUBMITTED
60.	Attachment 1: Offer and Acceptance Form	<input type="checkbox"/> YES <input type="checkbox"/> no
61.	Attachment 2-A: Experience and Capacity Questionnaire	<input type="checkbox"/> YES <input type="checkbox"/> no
62.	Attachment 2-B: Organization Profile	<input type="checkbox"/> YES <input type="checkbox"/> no
63.	Attachment 3-A: Method Proposal	<input type="checkbox"/> YES <input type="checkbox"/> no
64.	Attachment 3-C: Proposed Subcontractors	<input type="checkbox"/> YES <input type="checkbox"/> no
65.	Attachment 3-D: Israel Boycott Disclosure	<input type="checkbox"/> YES <input type="checkbox"/> no
66.	Attachment 4: Pricing Sheet	<input type="checkbox"/> YES <input type="checkbox"/> no
67.	Attachment 7-A: Confidential Information Designation	<input type="checkbox"/> YES <input type="checkbox"/> no
68.	Attachment 7-B: Conformance Statements	<input type="checkbox"/> YES <input type="checkbox"/> no
69.	Attachment 10: Offer Checklist	<input type="checkbox"/> YES <input type="checkbox"/> no

End of Attachment 10

End of Section 3-B

End of Part 3

	<h2>Solicitation Amendment</h2>	<p>Arizona Department of Administration State Procurement Office 100 N. 15<sup>th</sup> Avenue, Suite 402 Phoenix, AZ 85007</p>
	RFP: ADSP018-00008023, Multifunction Devices, Including Supplies and Maintenance	
	Amendment 1	

### Multifunction Devices, Including Supplies and Maintenance

1. Pre-Offer Conference Announcement added to Section 1: Solicitation Summary, Tem 3.0

The State WILL conduct a Pre-Offer Conference for this Solicitation at **100 N. 15<sup>th</sup> Ave, Phoenix AZ 85007 in the ADOA 1<sup>st</sup> Floor Conference Room on May 1<sup>st</sup>, 2018 from 9:30 a.m. Arizona Time – 11:00 a.m Arizona Time**; attendance is optional. Refer to paragraph 2.7 of the Instructions to Offerors for more information.

2. Modification to Section 2-D: Uniform Terms and Conditions:

Term 5.2.2, corrected Error! Reference source not found.9 [*Error! Reference source not found.*] with 3.9 (*Subcontracts*).

Term 6.4.1, corrected [*Error! Reference source not found*] with (*Performance in Public Health Emergency*).

Term 7.9 , corrected Error! Reference source not found.2 [*Error! Reference source not found.*] with 5.2 (*Assignment and Delegation*).

Term 7.10.2 corrected [*Error! Reference source not found*] with (*Force Majeure*).

**ALL OTHER REQUIREMENTS, SPECIFICATIONS, TERMS AND CONDITIONS REMAIN UNCHANGED  
ACKNOWLEDGEMENT AND AUTHORIZATION**

This change order shall be fully executed upon the approval electronically in ProcureAZ by an authorized representative of the Contractor and applied to the contract in ProcureAZ by the Procurement Officer or delegate.



## Solicitation Amendment

Solicitation: ADSPO18-00008023, Multifunction Devices, Including Supplies and Maintenance

Amendment 2

Arizona Department of  
Administration  
State Procurement Office  
100 N. 15<sup>th</sup> Avenue, Suite 402  
Phoenix, AZ 85007

### Multifunction Devices, Including Supplies and Maintenance

- The due date for Offers has been extended to 05/23/2018 at 3:00 P.M. and is reflected in ProcureAZ.

**ALL OTHER REQUIREMENTS, SPECIFICATIONS, TERMS AND CONDITIONS REMAIN UNCHANGED  
ACKNOWLEDGEMENT AND AUTHORIZATION**

This change order shall be fully executed upon the approval electronically in ProcureAZ by an authorized representative of the Contractor and applied to the contract in ProcureAZ by the Procurement Officer or delegate.

	<h2>Solicitation Amendment</h2>	<p>Arizona Department of Administration State Procurement Office 100 N. 15<sup>th</sup> Avenue, Suite 402 Phoenix, AZ 85007</p>
	<p>Solicitation: ADSPO18-00008023, Multifunctional Devices, Including Supplies and Maintenance</p>	
	<p>Amendment 3</p>	

### Multifunctional Devices, Including Supplies and Maintenance

- Section 2, Scope of Work 2-A, Term 4. Scope of Products and Services, removal of “specifically: EPS060122, ADSPO12-015669, ADSPO12-015733, ADSPO12-015699 and ADSPO12-015851.”

- Section 2, Scope of Work 2-A, Term 6.6 Meter Requirements is **replaced** with:

#### Reporting Requirements

The Contractor will be responsible for remotely or physically taking meter readings monthly at each Equipment site. The Contractor may provide an electronic method for providing periodic meter readings. These electronic methods may include online submission and or automated electronic submission to be performed by the equipment in place via an available network connection as approved by the Customer.

If the room or location where the Equipment is installed is not accessible at the time of the reading, then a verbal reading will be relayed to the Contractor. Copy volumes will be shown on a report and shall be supplied by the Contractor. The reporting will contain the following data:

- 6.6.1 Machine serial number;
- 6.6.2 Meter reading;
- 6.6.3 "Unusable Copies" count;
- 6.6.4 Number of copies used during service calls; and
- 6.6.5 Authorized Key Operator signature.

If the Customer does not have the ability or preference to not provide the Contractor access to the available network connection, the Contractor shall ensure other mechanisms shall be in place to provide this service.

Reporting will constitute the total copy volume for a single calendar month.

- Section 3, **Removal** of attachment 3-B, Key Personnel, this does not need to be submitted as part of the proposal
- Section 3, Attachment 1, Offer and Acceptance Form, **revised** language to “provide Multifunctional Devices, including Supplies and Maintenance”

**ALL OTHER REQUIREMENTS, SPECIFICATIONS, TERMS AND CONDITIONS REMAIN UNCHANGED  
ACKNOWLEDGEMENT AND AUTHORIZATION**

This change order shall be fully executed upon the approval electronically in ProcureAZ by an authorized representative of the Contractor and applied to the contract in ProcureAZ by the Procurement Officer or delegate.



## Solicitation Amendment

Solicitation: ADSPO18-00008023, Multifunctional Devices,  
Including Supplies and Maintenance

Amendment 3

Arizona Department of  
Administration  
State Procurement Office  
100 N. 15<sup>th</sup> Avenue, Suite 402  
Phoenix, AZ 85007

- Section 3, Attachment 8-A, **Removal** of Baseline Security Controls Requirement, this does not need to be provided as part of the Offer.
- Pricing Attachment 4 – **revised** to include Additional Options tab per Q&A request in ProcureAZ.

**ALL OTHER REQUIREMENTS, SPECIFICATIONS, TERMS AND CONDITIONS REMAIN UNCHANGED  
ACKNOWLEDGEMENT AND AUTHORIZATION**

This change order shall be fully executed upon the approval electronically in ProcureAZ by an authorized representative of the Contractor and applied to the contract in ProcureAZ by the Procurement Officer or delegate.

	<b>Solicitation Amendment</b>	<b>Arizona Department of Administration State Procurement Office 100 N. 15<sup>th</sup> Avenue, Suite 402 Phoenix, AZ 85007</b>
	Solicitation: ADSPO18-00008023, Multifunction Devices, Including Supplies and Maintenance	
	Amendment 4	

**Multifunction Devices, Including Supplies and Maintenance**

- The due date for Offers has been extended to 07/18/2018 at 3:00 P.M. and is reflected in ProcureAZ.

**ALL OTHER REQUIREMENTS, SPECIFICATIONS, TERMS AND CONDITIONS REMAIN UNCHANGED  
ACKNOWLEDGEMENT AND AUTHORIZATION**

**This change order shall be fully executed upon the approval electronically in ProcureAZ by an authorized representative of the Contractor and applied to the contract in ProcureAZ by the Procurement Officer or delegate.**



**CITY COUNCIL  
AGENDA BILL**

**AB 2454  
December 11, 2018  
Consent Items**

**Agenda Item:** 3g  
**Proposed Action & Subject:** Approval of appointment of Joan Dwyer as Magistrate Pro Tem for the Sedona Municipal Court.

<b>Department</b>	Municipal Court
<b>Time to Present</b>	N/A
<b>Total Time for Item</b>	
<b>Other Council Meetings</b>	None
<b>Exhibits</b>	N/A

City Attorney Approval	Reviewed 12/4/18 RLP	<b>Expenditure Required</b> \$ Varies <b>Amount Budgeted</b> \$ 5,000 Account No. 10-5520-01-6011 (Description) Temp Wages Finance Approval <input checked="" type="checkbox"/>
City Manager's Recommendation	N/A	

**SUMMARY STATEMENT**

**Background:** A magistrate pro tem is a judge who serves on an on-call basis when the presiding magistrate is not available due to illness, training, vacation, or when it is necessary for the presiding magistrate to recuse himself due to a conflict of interest.

Joan Dwyer has served as a pro tem judge for the Sedona Municipal Court in the past. Currently she is the presiding magistrate for the Town of Jerome Municipal Court and a pro tem justice of the peace for Yavapai County. Ms. Dwyer is a graduate of the St. Louis University School of Law, St. Louis, MO.

**Community Plan Consistent:**  Yes -  No -  Not Applicable

**Board/Commission Recommendation:**  Applicable -  Not Applicable

**Alternative(s):**

**MOTION**

**I move to:** approve the appointment of Joan Dwyer as Magistrate Pro Tem for the Sedona Municipal Court for a period to two years.

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**CITY COUNCIL  
AGENDA BILL**

**AB 2378  
December 11, 2018  
Regular Business**

**Agenda Item:** 8a  
**Proposed Action & Subject:** Discussion/possible direction regarding the Sedona in Motion transportation program.

**Department** Public Works Department  
**Time to Present** 30 minutes  
**Total Time for Item** 2 hours  
**Other Council Meetings** March 27, 2018, June 13, 2018, August 15, 2018  
**Exhibits** A. Forest Road Survey, Results, and Comments

City Attorney Approval	Reviewed 12/4/18 RLP	<b>Expenditure Required</b>
		\$ N/A
City Manager's Recommendation	Discuss and provide direction on SIM projects.	<b>Amount Budgeted</b>
		\$ N/A
		Account No. N/A (Description)
		Finance <input checked="" type="checkbox"/> Approval

**SUMMARY STATEMENT**

The January 2018, City of Sedona Transportation Master Plan (TMP) evaluated Citywide transportation needs and concluded with a set of recommended strategies to address congestion and mobility needs of residents, visitors, and commuters. These strategies have been developed into a system of capital improvement projects that collectively have been identified and promoted as the Sedona In Motion (SIM) program. The SIM program is a multi-modal transportation initiative embracing Sedona's community values for improved traffic flow, community connections, business and tourism connections, economic vitality and diversity, environmental stewardship, walkability, and sense of place. Since the last SIM update on August 15, 2018 we have made progress on many different projects that are outlined below.

**Public Participation:**

There are many ways for the public to participate in the development of SIM projects. Citizens can post comments to the SIM section of the City's website [here](#). Citizens can also submit written comments directly to City Council members on the City's website [here](#). Written comments are given equal consideration to those submitted in person during meetings.

Citizens wishing to make public comment are required to complete a comment card provided near the entrance of the Council Chambers. Public comments are generally taken after presentation and initial questions for the specific agenda item or topic. Once called upon, the

speaker will generally be limited to 3 minutes. The timing and time allowance for speakers can be further changed or limited based on the Mayor's discretion to ensure orderly progress of City business. Please note that while citizens can engage with Councilors in multiple ways at any point in time, Councilors are prohibited by law from discussing City business outside of a scheduled public meeting; meaning Council meetings are the only opportunity for Council as a body to deliberate. The projects are listed in the order that they will be presented to Council. It is anticipated that we will get through an update of SIM-4.

Public participation throughout the TMP and SIM project development has been a primary focus. Some figures of the outreach that has been done:

- More than 3,500 engaged via survey responses, public meetings, open houses, and news coverage from spring 2016, the start of the TMP to now, as we enter the SIM construction projects.
- Seven TMP and SIM online surveys with over 2,800 responses.
- Four TMP and SIM public meetings with over 250 people in attendance.

**Background:**

- SIM-6, Neighborhood Street Connections: Outreach meetings were held with Morning Sun Condos and Northview HOA's in late April regarding the first potential neighborhood connection between Northview Road and Sunset Drive. Their position was made clear that there was near unanimous opposition to this connection being made. Staff has also received communication from residents near other potential connection locations expressing similar opposition. Staff has been directed by Council to shift focus to other SIM projects. These neighborhood connections are off the table, unless partners can be identified, or neighborhoods begin asking for connections to be made. In that event, no project would be considered until extensive outreach with affected neighborhoods was conducted.
- SIM-5, Major Roadway Connections: For the Forest Road Connection, a feasibility study/conceptual design has been completed. At the direction of Council, a survey was performed to identify how Uptown residents would utilize the connection if constructed. The survey launched on October 22<sup>nd</sup> and closed on November 19<sup>th</sup>. Approximately 1050 letters with surveys were mailed out to mailing addresses, site addresses, and PO boxes. We mailed all the owners, along with the site resident if different than the owner mailing address. The purpose of this was to not exclude any homeowner or renter from taking the survey. Each letter had a password that expired after one use to ensure only one survey per household was counted. Additionally, there are 660 residential parcels with 124 vacant parcels in Uptown. Overall, we had 334 completed surveys.
  - About 78 percent of survey takers were supportive of this project, and 18 percent were not supportive.
  - Survey takers were mostly either strongly supportive or strongly opposed.
  - Almost 85 percent of survey takers said they would use the extension if constructed.
  - Almost 74 percent of survey takers support the project even if acquisition and/or condemnation may be needed.
  - Conversely, about 24 percent of survey takers did not support the project if acquisition and/or condemnation may be needed.

The Hyatt HOA has expressed opposition to the project, especially Option 3.

If Council directs staff to move forward with the project, we would come back to Council with important criteria for each of the potential routes, like cost and number of affected properties, to formalize the preferred route.

For the Portal/Ranger/Brewer Road Connection project, we have initiated key stakeholder meetings to identify public-private project opportunities. A consultant is under contract to identify preferred alignments and prepare final design. The preliminary design is 30% complete.

- SIM-11, Bicycle and Pedestrian Improvements: These projects focus on improvements that can make walking and bicycling safer, more convenient, and more comfortable. The improvements we are currently pursuing begin the path toward a more bike-friendly and walkable Sedona.

The improvements listed in the TMP were not comprehensive, and we continue to explore opportunities for improvements under this strategy. Public Works staff has worked with Community Development staff to identify early projects and focus areas. A local consultant is working on design for projects in several high priority areas. Design was completed recently for a segment of shared use path at Sunset Park. This is scheduled to be constructed in the later part of December 2018 and January 2019.

Under this strategy City staff is considering applying for a permit with ADOT to install green lanes in West Sedona. Although these types of improvements are in place in many state and local jurisdictions throughout the country, this would be the first application of green lanes within ADOT jurisdiction. The improvement would be similar to what's shown in the image below; however, our application to ADOT would include applying the green pavement marking in turn lane transition areas only, one location is shown below just east of Rodeo Rd on SR 89A.



- SIM-12, Traveler Information: ADOT has informed the City that they will begin displaying travel times to Sedona on the I-17 corridor in the month of December. Staff continues to be part of the discussion to ensure that the information provided accomplishes the objectives of the City.

Projects for ongoing travel time and origin-destination data, and interactive camera installations are in progress.

- SIM-7, Enhanced Transit Service – Tourism Focused: This project has received a \$160,000 grant through federal transit planning and \$10,000 funding from Coconino County. A contract with LSC Transportation Consultants out of Colorado Springs was approved by Council at the June 26th meeting. Stakeholder interviews, a public open house, online survey, and intercept surveys were conducted in September and October. Interim Report #1 has been published on the City’s website. The Technical Advisory Committee will meet, and 2 stakeholder meetings will be held on January 10 to discuss service options. There will then be subsequent public input in February.
- SIM-4, SR 179 Improvements: The first phase of this strategy provides for the addition of a separated right-turn lane to SR 179 South and the addition of a separated right-turn lane to Uptown at the “Y” roundabout. An IGA with ADOT formalizing the City’s 50% funding contribution toward the project was approved at the October 23 council meeting. Execution of the IGA is pending a final review by ADOT’s Right-of-Way group. Once executed, the first step will be to set up a meeting with adjacent property owners and stakeholders to get their input about the project.

Another component of Strategy 4 is the pedestrian crossing at Tlaquepaque. The Project is currently in the planning stage of development. Staff is working with a consultant to conduct an alternative analysis study of pedestrian crossing options. The four options being considered are an underpass, an overpass, an indirect multi-use path beneath the existing Oak Creek bridge, and maintaining the current at-grade crossing with additional pedestrian control. The project team is currently in the process of developing base mapping of the project area, evaluating the various crossing alternatives and preparing hydraulic modeling of Oak Creek to assess floodplain impacts of the various crossing alternatives. The study is approximately 20% complete.

- SIM-1, Uptown Roadway Improvements: The Design Concept Report has been completed. 60% design plans have been completed and are being reviewed by staff. A meeting was held with stakeholders on November 15, to discuss the 60% plans. A median concept survey was recently completed, and 27 submissions were received. Staff are reviewing the submissions and will forward a short list of concepts to the design consultant. They will prepare 3 refined options for the City that will be presented to council in January. Our Economic Development Director is also generating a package of business support options for Uptown merchants during construction. Staff is also working on advertising for a contractor that will provide pre-construction services for value engineering, and construction timeline/sequencing. We will be having another public meeting and stakeholders meeting in February to get input on the 90 percent design and begin to focus on construction timing and sequencing.
- SIM-3, Parking & Wayfinding: The next phase of vehicular wayfinding has begun for branded vehicular wayfinding throughout the entire City to indicate points of interest including parks and trailheads. A second round of comments has been received from ADOT. A preliminary study of one-way streets in Uptown for Van Deren, Wilson, and Smith Roads has also been completed. An outreach effort with residents in this area will be initiated in the coming months before this project would move forward. Design of pedestrian kiosks in Uptown is nearly complete, and are expected to be installed in the coming months.

In all, there are currently 10 consultant contracts in process for the SIM program.

**Community Plan Consistent:** Yes - No - Not Applicable

The Sedona In Motion program in general supports the six Vision Themes of the Sedona Community Plan.

- Environmental Stewardship: Conserves natural resources associated with wasteful vehicle operations due to congested travel time.
- Community Connections: Supports community connections through its emphases on public participation and involvement during design development and indirectly by improving mobility between gathering place in Uptown Sedona.
- Improved Traffic Flow: Reduces congestion and travel times and improves vehicle and pedestrian safety.
- Walkability: Reduces vehicle and pedestrian conflicts improving walkability and safety.
- Economic Diversity: Improves local resident and visitor access through multimodal transportation options and connections.
- Sense of Place: 1% of project expenditures will go towards the development of arts, cultural, or heritage. Projects will be built consistent with local codes and with intention on preserving or complimenting the natural and scenic beauty of Sedona.

**Board/Commission Recommendation:**  **Applicable** -  **Not Applicable**

**Alternative(s):** N/A.

#### **MOTION**

**I move to:** for discussion/possible direction only.

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102 Roadrunner Drive  
Sedona, Arizona 86336  
[www.SedonaAZ.gov](http://www.SedonaAZ.gov)



October 2018

Dear Uptown resident,

We need your valuable feedback!

You are invited to take an **important survey** on the proposed Forest Road extension project. As part of Sedona in Motion, the city's effort to bring to life the recent Transportation Master Plan, the city is looking into the feasibility of extending Forest Road down to SR 89A west of the post office.

Because resident input is so important to us, we would like to know exclusively from Uptown residents whether or not you would use the route if constructed.

You can take this short, **5 – 10 minute** survey either online at [www.SedonaAZ.gov/ForestRoadSurvey](http://www.SedonaAZ.gov/ForestRoadSurvey) or via the enclosed paper survey. If you take the paper version of the survey, you may return it by mail in the enclosed postage-paid envelope. You will have three weeks to take the survey, with the survey period ending on November 19<sup>th</sup>, 2018, and only one survey per household may be submitted.

To take the online version of the survey, enter this one-time use, case sensitive password:

- **Password: -----**

Your participation in this survey is vital to this project and your feedback will help us make critical decisions.

If you have any questions about the survey, please call Lauren Browne, citizen engagement coordinator for the city of Sedona at 928-203-5068 or email her at [LBrowne@SedonaAZ.gov](mailto:LBrowne@SedonaAZ.gov). For more information on Sedona in Motion projects, visit [www.SedonaAZ.gov/SIM](http://www.SedonaAZ.gov/SIM).

Thanks for your help!

Sincerely,

City of Sedona

# Forest Road Survey

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Sedona in Motion is the effort of bringing the Transportation Master Plan to life. As part of this effort, the City is looking at the feasibility of extending Forest Road down to SR 89A west of the post office.

Some benefits of the project include:

- It provides an alternative route for Uptown residents, especially when the "Y" and Brewer Road roundabouts, and Cooks Hill are congested.
- It provides an alternate route in emergencies.
- It could provide a sidewalk and/or bike path.

Some impacts of the project include:

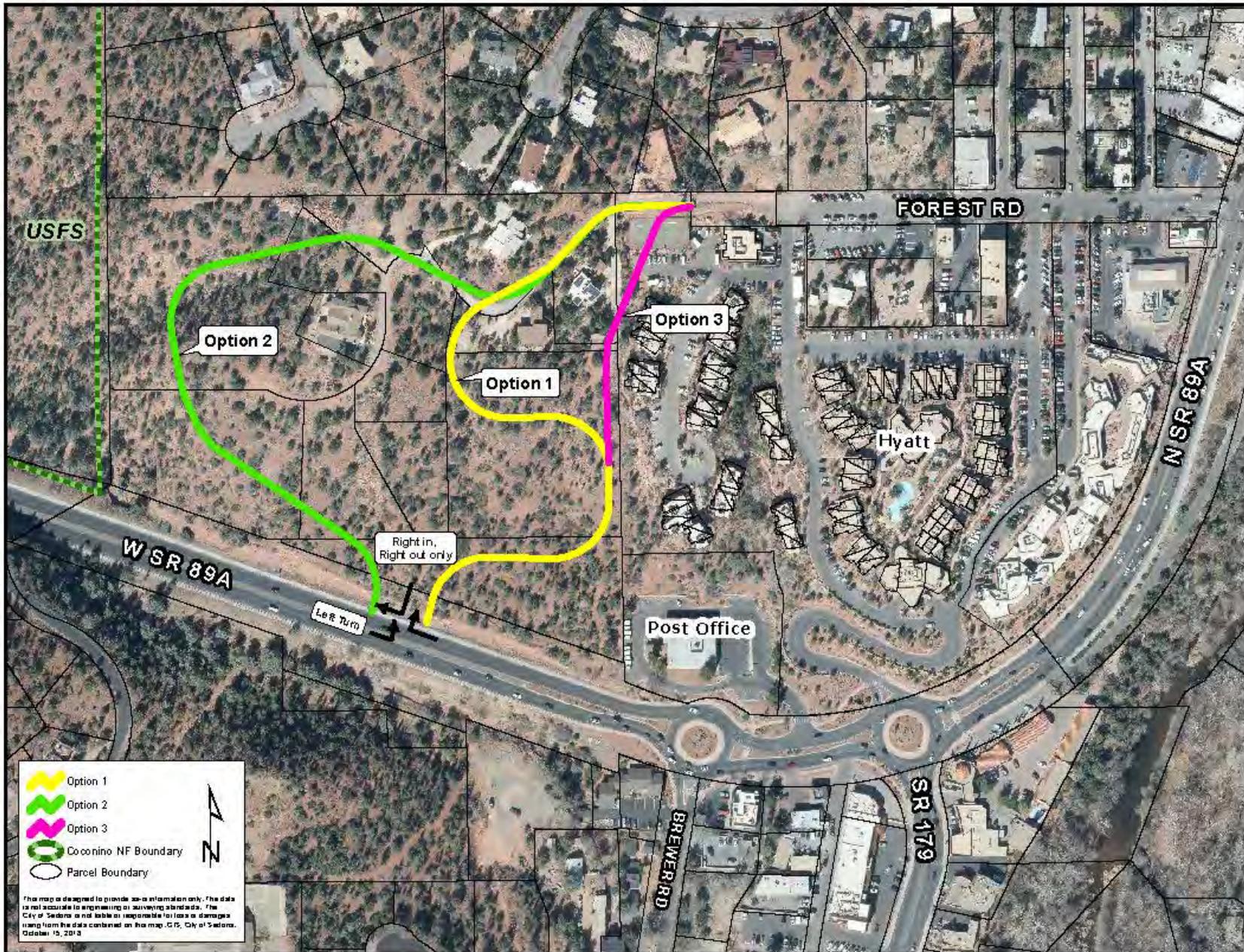
- There are affected property owners who have expressed opposition.
- Condemnation of portions of private property but not homes, could be needed.

Current estimates of the project are between \$2 - 3 million of the anticipated \$35 million that is being allocated over the next ten years toward transportation projects.

None of the questions in this survey are required and you can answer or skip as many questions as you would like. Thank you for taking the time to be part of the citizen engagement process on this project!



The following 3 routes are being assessed through private land (not through Forest Service land) for feasibility and impacts:



**1) Please answer the following question to the degree to which you agree:**

	<b>strongly agree</b>	<b>agree</b>	<b>disagree</b>	<b>strongly disagree</b>	<b>don't know</b>
I support the project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**2) Please answer yes or no to the following questions:**

	<b>yes</b>	<b>no</b>
Would you use the extension?	<input type="radio"/>	<input type="radio"/>
Would you use the extension regularly?	<input type="radio"/>	<input type="radio"/>
Would you use the extension during congested times?	<input type="radio"/>	<input type="radio"/>
Would you use the extension from Uptown, heading toward West Sedona?	<input type="radio"/>	<input type="radio"/>
Would you use the extension from West Sedona, heading toward Uptown?	<input type="radio"/>	<input type="radio"/>

**3) This project may require acquisition and/or condemnation. Acquisition is a traditional purchase or trade for property, negotiated with a willing seller. Condemnation is an authorized acquisition of property for public purpose in exchange for fair market value regardless of the willingness of the seller. How likely are you to support this project knowing that acquisition or condemnation of portions of property, but not homes, may be needed?**

- very likely
- somewhat likely
- somewhat unlikely
- very unlikely
- don't know

**4) For the purpose of this question, assuming the project were to proceed, rank the following priorities, with 1 being the highest and 3 being the lowest:**

narrow the roadway and forego a sidewalk and bike lane to minimize effects to immediately adjacent property owners

maximize multi-modal amenities like bike lanes and sidewalks

beautify the project with screening elements like landscaping and native plantings

**5) Are there any other comments you would like to provide on this potential extension?**

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**Thank you for taking our survey. Your response is very important to us. To find out more information on Sedona in Motion projects and sign up for updates visit [www.sedonaaz.gov/SIM](http://www.sedonaaz.gov/SIM).**



# Report for Forest Road Extension Survey

## Response Counts

Completion Rate:	100%	<div style="width: 100%; height: 15px; background-color: #6a3d9a;"></div>
Complete		<div style="width: 80%; height: 15px; background-color: #6a3d9a;"></div> 334

Totals: 334

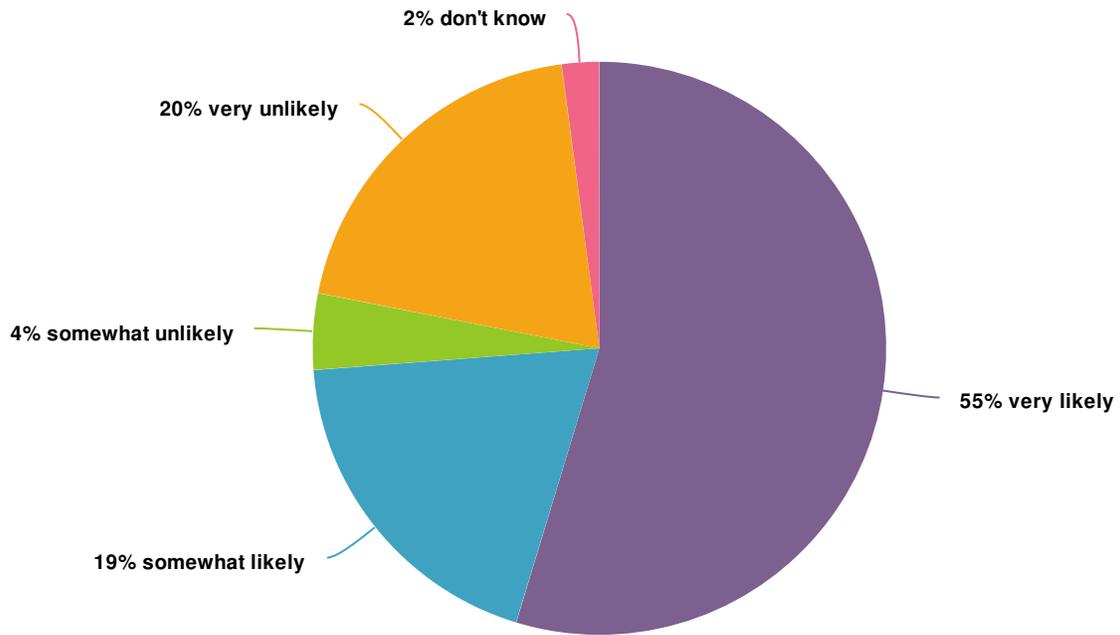
1. Please answer the following question to the degree to which you agree:

	strongly agree	agree	disagree	strongly disagree	don't know	Responses
I support the project	167	62	11	42	11	293
Count	57.0%	21.2%	3.8%	14.3%	3.8%	
Row %						
Totals						
Total Responses						293

2. Please answer yes or no to the following questions:

	yes	no	don't know	Responses
Would you use the extension? Count Row %	247 84.9%	41 14.1%	3 1.0%	291
Would you use the extension regularly? Count Row %	208 72.7%	74 25.9%	4 1.4%	286
Would you use the extension during congested times? Count Row %	249 85.9%	39 13.4%	2 0.7%	290
Would you use the extension from Uptown, heading toward West Sedona? Count Row %	234 81.5%	50 17.4%	3 1.0%	287
Would you use the extension from West Sedona, heading toward Uptown? Count Row %	232 80.3%	54 18.7%	3 1.0%	289
Totals Total Responses				291

3. This project may require acquisition and/or condemnation. Acquisition is a traditional purchase or trade for property, negotiated with a willing seller. Condemnation is an authorized acquisition of property for public purpose in exchange for fair market value regardless of the willingness of the seller. How likely are you to support this project knowing that acquisition or condemnation of portions of property, but not homes, may be needed?



Value	Percent	Responses
very likely	54.7%	180
somewhat likely	19.1%	63
somewhat unlikely	4.3%	14
very unlikely	19.8%	65
don't know	2.1%	7
		<b>Totals: 329</b>

4. For the purpose of this question, assuming the project were to proceed, rank the following priorities, with 1 being the highest and 3 being the lowest:

Item	Overall Rank	Rank Distribution	Score	No. of Rankings
narrow the roadway and forego a sidewalk and bike lane to minimize effects to immediately adjacent property owners	1		558	270
maximize multi-modal amenities like bike lanes and sidewalks	2		518	264
beautify the project with screening elements like landscaping and native plantings	3		495	243



5. Are there any other comments you would like to provide on this potential extension?



**ResponseID    Response**

13                    Left turn would have to feel safe as the area indicated is usually traveled at 40 mph

## ResponseID Response

- 15 We were really excited to see this proposal last year in the original SIM presentations. It will have a MAJOR positive impact on our quality of life, particularly during busy tourist times (which are getting more frequent!). By allowing us to bypass the Y and Brewer Circle it will help alleviate congestion for others that need to use those routes while allowing Uptown Locals easier "in and out" access to our neighborhood. We STRONGLY support this project!!!
- 20 option 3 appears most efficient for a roadway. would option 2 provide the opportunity to create affordable housing land if the city condemnation of lots and the topography of the land acquired allows for attractive, affordable housing density!! location seems appealing for affordable housing. I favor option 2 if the development possibility exists. otherwise, option 3.
- 22 I like Option 3 the best
- 23 I've been a property owner in Uptown since 1996 and look forward to being able to eliminate passing through the "Y" to get to and from my home. I was the one who suggested to eliminate the one-lane on 89A just east of the Y. Thank you for listening to my request many years ago.
- 24 This is a bad idea. It will do little to alter traffic congestion from the west because there is no left turn lane and the left turn, in any event, is very close to the roundabout. Traffic from the north is seldom backed up once it gets past Forest Road.
- 28 We strongly support this proposal as it improves Sedona for both residents and visitors.
- 29 I prefer route 3 which seems to be more direct and with least impact on private properties. Being shorter, I'd presume it is also less expensive.
- 32 The project presentation rises more questions than it answers. There are commercial properties along this route. Building a road will create opportunities for new commercial developments. What will they be , will this enhance uptown attraction and make it better place for foot traffic with nice views? This is what many tourists like to do: park and stride, not drive in circles ! If we provide a village feeling to uptown we can make a more livable place for residents elderly and others. Thanks.
- 34 This is a "must have" project for uptown residents. We need another exit option. When the roundabouts are blocked by heavy traffic we are trapped. Emergency vehicles cannot get to us in a timely manner!
- 36 Great idea. Something has to be done!

## ResponseID Response

38 \*cost is important - we believe the current \$1.3M estimate is understated primarily due to the acquisition and/or condemnation risk. \*are there any public health and safety needs that this connector would address - if yes please be specific - please quote the fire chief and/or police chief \*is commercial use (e.g. jeep tours) to be allowed? if yes then casual light usage theme is unlikely during peak seasons \*will this route be available via smart phone app e.g. google maps - We suspect yes but wanted to understand if there was some sort of exclusion technique the city is aware of \*what will it look like when viewed coming east down cooks hill? \*when the city publishes the results of question #2 we think it is critical that those results be categorized under the question #1 categories. I suspect there are people against the connector but will answer they would use it if it was put in despite their disagreement. Thank you for conducting this survey.

43 sg test

44 sg test

47 I strongly support this project and believe it is needed not only to provide an alternate route for Uptown residents, but for emergency vehicle access as well. If the project affects property owners, compensate them fairly - and perhaps even generously - for this. Do not allow the naysayers to kill transportation improvements that have been supported at the ballot box.

49 I would opt for Option 3 because it looks like its more direct and looks like it would have the least impact on private property.

52 Option#3 makes the most sense to me.

54 I think this is a good idea and will reduce traffic congestion in uptown

56 Sedona needs a new road that is from 89A to 179 without going through the roundabouts. PLEASE

59 Move on the project. Enough surveys

60 great, great great idea. So glad to see our city at work to improve traffic flow. This is so important to Sedona. Thank you (everyone) for your vision on this matter. I have a resident for 26 years. I have seen a number of "connector" roads and in each time, despite some local opposition, the roads become popular to use.

62 Remove the roundabouts and install smart signal lights to allow 35 mph traffic to go from one end of town tot he opposite side of town without stopping. This types of traffic control is done throughout the USA. Traffic circles do not work when crowded and cars come to a stand still.

64 Option 3 seems to be the least intrusive.

65 If the people living on Forest are adversely affected I do not support this. If there are no directly adversely affected folks on Forest, i do support it

## ResponseID Response

67	Probably not use a Forest Road extension. Totally oppose a roundabout at Jordan.
68	Hurry!
69	Lived in Uptown 15 years. Seldom have problems coming in or out of neighborhood!! Major Uptown traffic improvements planned would solve traffic problems at circles and this project not necessary.
70	Bike lanes and sidewalks are not necessary because a bike is not affected by the congested traffic. They can ride around. There are very few people who walk from Uptown to West Sedona so this amenity of sidewalks is superfluous.
71	Focus your money on fixing the Uptown problem (where tourists are). I would lower the road through the Uptown business area with level cross walks and a plaza over the road (not pedestrian bridges). Look at the way Dupont Circle in Washington DC works. Create more parking on side streets. Close off last block of Jordan Road and create pedestrian plaza. Do not put roatary in Uptown at Jordan Road. John and Liz Danbury 592-8379
72	I would only support option 3. (note from transcriptionist: his answers are only in regarding option 3)
74	I do not see the need for the projected. I have seen no congested times. Only congestion is on 179 at Tlaquepaque back up to Sky Mountain.
75	Give this money to the schools. Gross use of taxpayer money as unnecessary project. Will lead recall on any Council member voting for this.
77	Who comes up with these very stupid ideas.
78	OPTION #3 is definitely the BEST OPTION to minimize impacts to the residential properties. The Forest Road extension is an EXCELLENT option for Uptown residents and employees to avoid the Y roundabout and Uptown traffic during congested periods. A Must Do.
80	This is one of several projects that is very much needed to relieve some of the congestion in uptown around the roundabouts .
82	DO SOMETHING!!!!!!!!!!!!!! I have been a homeowner in Uptown Sedona since 2009 and all you have ever done is do one study after another! I don't care if it is an unimproved road.....anything is better than now!
84	Bypass the roundabout at the why is not only a good idea, it's necessary! Added from paper survey: It looks like option 3 has the least impact on existing homes. Why is that?
85	The Planning Team with the City needs to acquire more sophisticated transportation modeling systems. to help us get through the growing traffic needs.

## ResponseID Response

87	Please keep costs to a minimum. Option 3 looks like the most feasible and leave invasive. Option 1 would be my second choice and option 2 my third choice.
88	Good luck lol. This is Sedona ha. How about public pool being opened year-round with a bubble for use.
89	Good idea. Please also consider an extension across 89A to Brewer Rd and on to 179 near Circle K. Would use on weekends. Can't see congestion from Forest Rd - Smith intersection.
90	The congestion at what used to be called "the Y" is due to heavy traffic around Tlaquepaque. That is where we need a traffic coordinator.
91	Could the Uptown Disneyland cowboy tourist strip be done away with somehow, replaced by anything? Useful commercial for town residents and discourage the tourist trade to the greatest possible extent? No?! I guess not.
92	This would be a big plus for everyone in the whole Uptown area.
94	Excellent project - long overdue. Thank you for addressing a critical need.
95	I would like to see this as one of the highest city priorities in the road projects to reduce congestion in Uptown. I went to the presentation and it wasn't even mentioned; I had to ask about it. Most of the options were to ease tourist congestion. This one if for the citizens of Sedona!
96	We believe this extension would be very beneficial to alleviate traffic problem in our area due to congestion. We are very much in favor of this project.
98	Thank you!
99	Great project - get it done!
100	My answers to question 2 are for Saturday and Sunday only.
101	Option 2 solves no traffic or neighborhood need. Idiotic. Options 1, 2 and 3 destroy neighborhoods and only pump traffic onto Forest while defacing landscape. Only conceivable value is if the project is signed "for residents only," which is legally dubious. Sedona, you can do better than this lame proposal!
102	This is a mistake which will do nothing to relieve traffic congestion on Hwy 179 from Hwy 89A (from Flagstaff) or from Hwy 179 to Flagstaff (89A). It will ruin pedestrian access from Uptown shops and neighborhoods trying to walk to the Hyatt shops. Additionally, auto traffic will be slow up Forest because of pedestrian traffic. Sedona is a "walkable" town. If you want to relieve traffic congestion on 89A build a pedestrian bridge (or two) over 89A in Uptown. Less expensive and more effective.

## ResponseID Response

- 104 The sooner this is done the better, I had a medical emergency and it was impossible to get through the congestion. I had to change strategies and go to flagstaff instead.
- 107 This project is to ease congestion at the expense of our neighborhood! We do NOT want to reroute traffic into our already "over-touristed" home area! No! Don't do it! We have lived here 60 years and hate what you are doing! It's not fair to dump all that traffic into our residential area!!!
- 108 Any extension to Forest Rd would bring in more traffic to our area. It would be used as a bypass eventually by traffic coming down 89A from Oak Creek. It would be a negative impact on our lots in Manzanita Lane. Option 3 would have the least impact to our neighborhood of the three options. Thank you.
- 109 The only version I would be willing to support is Option 3, as the least obtrusive.
- 110 I like option 2 the best
- 111 I believe the plan will very effectively relieve traffic coming from 179. However I do not know if it will relieve traffic coming from west Sedona because of the left turn required. This might require another rotary or a light. At the least a turning lane will be required. Added from paper survey: Thank you for your work on this urgent matter! My greatest fear is not being able to get to the hospital in a timely manner in a life or death situation from our Uptown residence. More concerning for all of our much older neighbors. As a short term fix, we hope it gets implemented ASAP. Long term, this fix will be overrun by the ever increasing numbers of tourists without the transportation infrastructure to support virtually nonstop growth.
- 115 Please do something to alleviate the traffic at the roundabouts in high season. Don't cowlow to the haters.
- 116 \*No more hotels - enough is enough. Our infrastructure can't handle it. \*Build a pedestrian bridge at Tlaquepaque -- the city has created a horrible traffic situation at that location. Drivers are constantly stopping to let pedestrians cross. \*Revisit Red Rock Crossing!!!!!! People need an alternative way to travel to the village. \*Add a sign at roundabout telling people not to block roundabout when they can't move onto 179 and let uptown people through!
- 117 PEDESTRIAN BRIDGE AT TLAQUEPAQUE REVISIT RED ROCK CROSSING; NOT FAIR TO DO THIS BUT NOT OPEN THAT UP. WE NEED TWO WAYS TO VOC. PUT SIGN IN ROUNDABOUT SAYING NOT TO BLOCK IT SO THAT 179 DRIVERS DON'T BLOCK UPTOWN DRIVERS FROM GOING THROUGH WHEN 179 IS BACKED UP.
- 119 Would strongly favor route choice that avoids condemnation.
- 121 Great idea!

## ResponseID Response

122	You are doing this survey I'm sure for "cover" to make the tough decision to proceed. "Public safety" must come first = there must be another route exiting Uptown. Friends in Uptown "NIMBYs" act like you want to demo their home and they live 2 plus blocks away!
123	Prefer the least disruption to property owners but think the extension is necessary.
124	This is very needed!
128	I have owned a home in Uptown for 30 years. This is the first project that would help the Uptown property owners. Option 3
131	1. Do it in a way consistent with Sedona beauty. 2. 20 year Sedona vacation renters. 3. Option 3 looks shortest. But choice consistent with 1 above. 4. Ease of access at 89A critical.
132	We like option 2 the best.
135	About time please don't stop the progress. Additionally I would suggest Pedestrian Bridges in Uptown and A Bridge or a walkway under the Tlaquepaque Bridge, Most of your traffic issue is because of the ped. crossings. Additionally an alternate route down Schnebly Hill Rd with an added Bridge around the Art Barn Road could help. Potentially a circular traffic pattern through up town i.e. south bound traffic turns right coming into town and only travels down Jordan or Smith etc and North Bound uses existing Hwy 89A. Consider an Extension from Beaver Head Flats Road around Wildhorse mesa connecting to lower loop or Hwy 89 A or 525 B area. P.S. Who ever designed the Brewer Rd/Ranger Rd Turn Bridge SHOULD BE FIRED!!!

## ResponseID Response

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136 This is a very poorly crafted communication to the residents. It does not provide a complete overview of the project, the benefits the city would receive verses the cost of the project nor does it detail the impact to property/home owners. This survey shows three options, but no detail is given as to the cost of each option or how the different options would impact the environment, home and property owners. This region is very steep with a sever grade – how would construction work ensuring the integrity of the eco-system with the hillside and natural wash? What about commercial use like Jeep tours? The survey does not ask which option we prefer. Option 3 seems the easiest for construction and most direct - why are the other routes even being considered? The survey calls out emergency use as a benefit, yet at the public meeting in June, the fire chief said he would not use the route due to the grade and curvature of the road. Again, why is this listed as a benefit when the city new in advance it would not be used? I see any home or property owner would willingly sell a portion of their property knowing a road would now be impacting their quality of life. If condemnation is used, who is paying the legal costs? I can't image the opposing property owners would not file legal action against the city. There are homes under construction – how is the city addressing this? This neighborhood has terms and conditions of ownership – one of which is that the city has no right or access to this road – it is privately held. How is the city addressing this? Is the city trespassing to have studies complete?? Also, under the ownership terms, properties cannot be converted to commercial use. Is commercial investment influencing this proposal and how is the city addressing this with the planning commission or ADOT? This survey asks us to rank our choices of importance on beautification but yet, no example or details of what the project would look like was included in the survey. How wide is the road and how would it impact existing home/property owners? For example, the current dirt road is narrow and if increased would go through a current home owner's guest house and driveway. Are they supposed to have the road in their living room? I would highly recommend that the city abandon this proposal and look for alternatives for transportation and ensure that tourist traffic is not routed through neighborhoods.

138 I'm wondering about a couple of things : Will there be a sufficiently long turn lane, when coming down Cook's Hill, so residents are not caught up in the Y area traffic backup? What are the plans to avoid congestion at the Forest Road end of the bypass?

140 Speed bumps!!

144 A really good idea. Any thing to reduce number of cars in roundabouts.

145 Very good idea! Let's do it. Residents need an escape route. The escape route does not need to be pretty or have extra's.

146 Option 3 - most traffic - may be least desired! Option 2 may have best economic return

148 All the traffic will end up at 89A and Forest Road.

## ResponseID Response

149 Currently I feel held hostage by the traffic congestion at the Y. This is the #1 traffic problem that needs to be addressed. This problem became unmanageable with the opening of North Tlaquepaque and pedestrians crossing 179 between Tlaquepaque and North Tlaquepaque. I would rather have the money for Forest Rd extension used to work on the amelioration of this congestion. Currently I can take a short cut through the Hyatt to avoid some of the congestion, which already exists and mirrors the effect of the Forest Rd extension. I have observed the following in 12 years I have lived in Manzanita Hills. The increase of the number of vehicles with destination of Uptown. They shop, walk, eat, etc. and tend to start leaving around 3 pm. They enter the Y roundabout and have the right of way. But they often have to stop because of the backup of cars in front of Tlaquepaque, due to pedestrians crossing back and forth. This also causes cars to back up Cook's Hill. Also, it similarly effects traffic coming the other direction on 179. This backup of cars is like the children's toy, a slinkie. So if one car has to stop, many more will also have to stop down the line. So I would prefer a serious consideration of ways to improve traffic in front of Tlaquepaque. Pedestrians crossing 179 have the same effect as a traffic signal, uncontrolled. To make a different route on Forest Road seems like a band-aid approach. It gives residents a "short cute" but it doesn't address the congestion on 179 in front of Tlaquepaque. Cars will continue to back up on 89A every afternoon, and congestion at the Y roundabouts. In addition, I am not convinced that slip lanes at the Y will help as much as planned. It will create additional lanes for cars to have to stop. Thanks you for considering my comments.

150 This is a much needed relief for traffic in and out of Uptown.

151 I expect our officials will be under pressure from the wealthiest land owners - biggest donors to political parties. Do what is fair for all of us! Option 3 seems to be least expensive - but most resisted by whom it would impact!

153 Terrain is too steep for roadway Congestion on in and out 89A We never have a problem with congestion at the Y This project is not needed - waste of money

154 Please please do not put a roundabout at Jordan and 89A - we will have gridlock in Uptown. The work fine with light traffic but they lock up in heavy traffic. This would be a nightmare.

155 Much needed!

157 Great idea. We support this project. We both would use the route regularly as work is in Cornville. We would use the route at least x2 people.

158 No reason to buy and construct expensive out of the way roads just so visitors are always causing problems.

159 Spend our \$ to rent indoor water aerobic facility. The only exercise some older citizens can get! More important than another park for dogs! Stop spending so much to get visitors causing traffic problems aren't paying our high property taxes.

160 We are strongly in favor of Option 1. We are strongly against option 2.

## ResponseID Response

162	Take steps to limit the number of tourists. It is getting out of hand and having a negative impact on the quality of life.
163	I would only use the extension during congested times only if going to West Sedona
164	Let's get it done!
166	Thanks for designing this - much needed. Definitely make it aesthetic with plants and rocks. Option 3 seems the best option.
168	Put the bridge over Red Rock Crossing!
169	Question 4 : Working with the property owners is most important. We think option 3 is the best and has benefits for the Hyatt.
171	I am not a professional in this area but I don't really it solving the real traffic problem in Sedona.
172	Seems like a lot of money for a perceived minimal input.
177	While I support and will use this road because I live uptown I believe this will do almost nothing to reduce traffic. There also needs to be a bypass of the "Y" between west Sedona and highway 179. THAT AND ONLY THAT WILL SOLVE THE PROBLEM.
178	I only support this extension when city of Sedona decided to go with option 2. I don't think it's fair for home owners who are effected by this if you go with option 1 and 3. It looks like option 2 is less intrusive to adjacent houses.
179	I have a home in Uptown Sedona. I'm in the area frequently and find traffic congestion to be intolerable a lot of the time. I feel trapped when I need to go to West Sedona for doctors apts or grocery shopping. We need traffic control now.
180	Please make it beautiful and safe for all in community
181	I would support the project if acquisition is used, but NOT if condemnation is used as a methodology. The project will provide some marginal benefit, but is not required.
182	Would only support an extension that allows access to both West Sedona and Uptown. Added from paper survey: Would only support an extension that allows access to both West Sedona and Uptown. Please build bridges for pedestrians in Uptown and Tlaquepaque. Major congestion from walking traffic at bridge causes the 179 issues and north/southbound 89A. Alternate route possibilities up Schnebly Hill then connect the Arn Barn would be good. one way roads around Uptown ie all southbound turns before Uptown and goes down Jordan or Smith etc.

## ResponseID Response

183	This is a very poorly conceived project. The projected costs are grossly underestimated. There is no good way to route traffic onto the Bypass from West Sedona; no turn lane or light and the entrance would be close to the roundabout. We strongly oppose this project.
184	After the first of the year I will move from Sedona to Chandler AZ to me near to family. I want #3 will need a new stop light
185	We must have additional exits before another fire.
186	This project will only increase traffic thru residential Uptown to get to Forest Ave, Especially commercial and tourist traffic. I will fight this project as a simplistic solution to a problem of increasing traffic. Find other solutions than destroying quality of life for residents to get more tourists. 1. Charge tolls for tourists moving thru Uptown to cut traffic 2. Require tourists take shuttle buses 3. Issue resident passes for traffic control 4. etc. Do things that help residents, not help tourists!
187	Thank you!
188	Prefer option 3
189	Very needed, thank you for pursuing.
192	good idea for traffic flow!
193	I would request the option selected have the least impact to homeowners. In addition, a sign that says local access only to ensure tourists stay on 89A.
194	Thank you so very much for eliciting feedback from those of us who live in Uptown. The roundabouts have become treacherous especially on weekends. I rarely venture out on Saturdays, I've nearly been hit several times and I've see many near accidents (cars, cyclists, pedestrians) as people try to navigate the roundabouts. The traffic on Cook's Hill and from 89 - 179 roundabout to the VOC has been horrendous. Again, thank you so much for working towards solutions.
196	This extension is vital to ensure the long-term health, safety and welfare of Sedona residents who live north of the six Uptown parking lots on or near Jordan Road, our exit from the area. We are trapped during tourist months and on weekends due to the city-created risk. A health emergency or raging wildfire mandates this road extension!
197	If this road were in existence, I would use it now, especially going to West Sedona.
198	I liked option 1 and option 3 best based on your map.
199	We love the idea of getting to West Sedona without waiting in the traffic of the circles.
200	I feel an alternative route is needed, I just don't think it should be done against the will of property owners who might be effected.

## ResponseID Response

201	We have seen numerous suggestions in recent months and spent many hundreds of thousands of dollars with consultants . So far I have seen only two suggestions which make sense to me: 1. This one (option 3) and 1. Open a road from 179 to West Sedona. I simply cannot understand why we don't move now, URGENTLY to open such a road.
202	Not enough information to make a detail-informed input. More information needed. Eg. How many property/homes in arms way (in jeopardy) with this suggested expansion.
203	We are a family of 4 that live in Uptown near this proposed roach change and we feel option 3 would be the very best option.
204	No parking on Forest from 89A to past fire station. Prefer Option 3.
206	Anything that would help with the movement of traffic from Uptown residential to West Sedona. Option 3 would be my first choice followed by option 1, with option 2 being last.
208	Any way of making roadway for residents vs tourist - pass card like toll roads use?
210	We would use this several times each day! Since both of us have been involved in motorcycle accidents in the roundabouts!
212	Smith Road is the outlet for most of the Uptown neighborhoods. This project would make a left turn from Smith Road difficult. This entire project wouldn't be necessary except that the problem just keeps getting worse. Cut back on promoting tourism!!
214	I would like to know how much traffic will be diverted with this 'cutthrough', How much traffic would be diverted? How long would the left turn be, for queuing on 89A? The Option 1 to Option 3 seems less invasive, but what is the grade? Every street should be a Complete Streets effort, providing for ALL modes. Every option should be treated as sensitively as SR 179, with salvage of native plants, revegetation and aesthetic wall treatments (hopefully better than those at Hillside, which were executed poorly). My preference is for the least intrusive if the least visible and can be screened effectively. I also believe developers of the lots shown on the map should be served by the developer of that property, to city standards.
215	Thank you for ruining the lives of Sedona (long term) residents. You have master planned Sedona residents into exasperation and depression. May the Chamber Director, Chamber staff, Council and Mayor ride for the rest of your lives on the back of a turtle. Touche!
221	Option 2 looks more invasive than option 1 or 3. So it is least preferred. Thank you.
222	I dont like the condemnation of property.
223	Option 3 looks to be the least costly in dollars and impact to property owners.

## ResponseID Response

224	Leave it like it is so as not to cause any more traffic in the neighborhood than there already is. This would make more congestion through the neighborhood as it is most people don't follow the speed limits or traffic signs.
227	Option 3
228	Option 3 stays closer to already developed land.
229	Anything to minimize congestion. I am definitely in favor of this project.
232	Bad idea the problem will still exist. T alaquepaque is problem and 2 circles in front of it. I can't even get out of my driveway on the weekend. Lines of traffic now to the CVS pharmacy.
233	Good idea! We have lived in Uptown for 42 years.
234	This project only works for us in Uptown if we can take a left off 89A to get home and avoid the traffic going north
235	Could this be extended to Soldiers Pass?
237	We need it! Let's move fast on this project.
242	Great idea and much needed!!
243	I would use option 3 least effects the area.
244	I live on Ridge Road Uptown and going anywhere involves 2 congested traffic circles - sometimes adding 10-15 minutes to any trip. This project would be wonderful for me and my family.
246	I live in Uptown Sedona. So I am always to post office, grocery store and my Uptown retail store. I support Option 3.
248	I am against it.
250	Option 3 makes the most sense.
251	I appreciate giving input. Each section involved needs a lot of thought
253	This shows you are planning for today and the future. Thank you.
254	THANK YOU FOR ASKING OUR INPUT. WE PREFER OPTION 3.
255	Having lived in Sedona for more than 45 years I have lived through numerous changes. Not all good changes. It's impossible to visualize how these roadways would truly look. How many dips and curves would we need to navigate?

## ResponseID Response

258 Option 3 is the only option we would support.

262 All projects now and in the future should maximize amenities such as sidewalks and bike lanes and always include screening with native landscaping. Option 3 appears to have the least impact on land and private properties and also at less cost overall.

264 Shame on you!! If this was in your neighborhood it would not fly. Find a different way. You should not take people's property. I don't want more tourists up here.

265 Move the process as fast as possible.

267 Presume option 3 would have least impact on adjacent property owners. For the purposes of emergency vehicles, it would also be the shortest route

268 i feel for the home owners. i think we should buy everyone out, at higher prices, for the hassle. No i don't live there.

269 Prefer option 3

270 I am against the city confiscating private land. I would only support this project if the land owners voluntarily sold their land.

271 It appears option 3 would be the least invasive solution.

274 I am not clear why each option is numbered as it is. Unless #3 is the most disruptive it seems to be the most direct. Number one would be fine too.

276 How did you reach the estimate on cost? Will any properties be rezoned?

284 I don't see how this will result in anything other than a highly congested cut-through. If there was a way to ensure only local traffic had access, this would be a great benefit to the uptown neighborhood.

285 GREAT idea!

286 It's difficult to agree with some of these things knowing that it will have a negative impact on some of our neighbors, but most of the improvements necessary will have pros and cons. I hope the city council has the wherewith all to proceed, even in light of negative impacts to some- for the benefit of the greater community.

287 Will there be another roundabout to prevent traffic from backing up even more?

## ResponseID Response

290 Obviously, something has to be done to deal with the traffic and pedestrian congestion. However, as much as we would like to see an alternative route for uptown residents, we do not condone or support the condemnation of personal, private property. If anything, the road should cut through some of the commercial property adjacent to Option 3 as opposed to homeowner property. Sedona already has enough parks, sidewalks and bike routes, including them in this proposal would simply draw tourists and defeat the purpose of an alternative route for residents. Clearly, Sedona has neither the infrastructure nor the water resources to support a "resort town". However, if unconstrained growth is what you're looking for, moving all of the Jeep/Segway companies out of the Uptown area (to the outskirts of town), constructing a couple of pedestrian bridges (Uptown and Tlaquepaque), and placing barriers in the medians to deter jaywalkers would help relieve some of the congestion. We are very concerned about the direction that the current City Council seems to be endorsing. Our observation is that there is a lot being done to support private investors/developers and little being done to protect not only Sedona residents, but also the sacred land that is Sedona. Instead of acting as stewards of one of the most pristine areas in the country, it appears that the current direction taken by city officials is more in line with destruction than preservation. Perhaps city officials should take some time to observe how Zion National Park handles its visitors/tourists. If what we're witnessing today isn't curtailed, Sedona will become just tourist trap that ultimately benefits no one but big investors and developers.

291 We are less likely to support Option 2 because it interrupts the most virgin land, including trail entrance points for locals (like the one at the end of Manzanita). Option 1 is scenic and practical (nice for walking and efficiency). Option 3 maximizes efficiency but may be the most congestion producing option.

292 Bleeding traffic into neighborhoods does not address the real problem which is too many tourist in such a small town. Uncontrolled tourism growth is what should be addressed . Uncontrolled growth in the body is called cancer and Sedona is currently plagued with massive surge of tourists for many reasons not the least of which is the greed of merchants that look at a overly packed town as money in their pockets. The cry of tax revenues is there call to arms but the full time residents that I've talked to would be happy to deal with less revenue if it improved quality of life. Now our quality has reduced itself to checking the traffic apps and making a beeline to do errands then retreat into their homes to avoid the onslaught of traffic. If the extension needs to happen then I feel it should be option 3 to make it skirt the Hyatt vacation complex as people there would be transient and be the least affected by the new road that will no doubt be a very busy artery. Even though no homes would be in the way the traffic noise to the existing homes would be severe. Think of yourself and how you would react if a new busy road was proposed right under your house. The main problem with the existing traffic is the lack of flow. Uptown has to stop all pedestrians crossing on the roadway and do away with all signals expect for forest road / 89a. Then the other would be to alleviate the bottle neck going down 179 from the Y that often backs traffic up all the way to airport road. Routing southbound 179 traffic via brewer road to connect to 179 would prevent tourist from having to negotiate two traffic circle to exit town.

## ResponseID Response

- 293 Option 3 route seems the most direct and minimally invasive to most of the property owners. Since it is the most direct bypass I think it will be used by more travelers in times of congestion especially.
- 294 What is the cost-benefit scenario? Do owners of land agree with it? Would it be better to consider it after SIM (179 & 89A) is completed? Are there projects with higher importance and better impact for Sedona?
- 296 I think this is a brilliant way to solve the congestion problem in Uptown. We will also be much safer in case of a fire. Fire trucks could out to Uptown and the Canyon faster. Evacuees could get out of the Canyon and Uptown faster. Kudos to you for this elegant solution!
- 298 Option 3 appears to be the one with the least impact on nearby residences so my answers assume the #3 option. I would NOT support option 1 or 2.
- 299 Please don't add more roads; take private property to do so; cause more traffic noise; and encroach on forest land. Don't make Sedona URBAN! As homeowners near Uptown Sedona, we are aware that some of these roads would cause noise near our home and traffic and greater amount of cars/people nearby. Sedona is growing but another highway would just keep encouraging expansion, condemn private property to such ends and encroach in currently open, uninhabited land.
- 300 Traffic is terrible and improvements in flow a necessary, even if temporarily painful!
- 302 Maximize AND beautify. It's the Uptown residents' turn to benefit from a higher quality of mobility in this area. Thank you.
- 304 Option 2 would benefit 3 property owners of vacant lots - allowing better access to potential building site \$. Option 3 has the least impacts on property owners. I have not been bale to sell lot because of extension plan and not sure where road will end up.
- 305 Keep it simple and beautiful. Minimize the impact/surrounding area. Improve the area with landscape design.
- 307 Keep away for the residential! Sounds like a mess! Whatever happened to Keep Sedona Beautiful? Your ruining a sweet small Uptown!
- 309 Love it! Both my wife and I wish it was finished already. Great way to help us "Uptown" residents avoid the tourist traffic. Thank you. Option 1
- 310 Some though - op 2 overlook/parking - future access to USGS trails and mid paths left turn off 89A - how could that work? Smith Road is already a raceway Bottleneck still be a problem usage
- 312 If the extension was built I would use it, but I find it totally unnecessary. I currently cut through the Hyatt to Forest Road if there is a lot of congestion .

## ResponseID Response

313 Option 3 looks like the shortest and should have the least impact on property as it seems to follow existing property lines.

316 This is so important and is MUCH needed!

317 See attached diagram and explanation.

320 As a 25-year Uptown resident, this is not needed. Traffic back-up going from West Sedona to Uptown is almost always due to Tlaquepaque crosswalk and need to straighten southbound Schnebly roundabout as is always treated as a stop - this is the place for the slip lane - not the Y. Also eliminating on street parking Uptown and make parking structure at old Valley Bank building.

321 Don't have any issues leaving Uptown, only returning from W Sedona due to Tlaquepaque backup (Schnebly roundabout southbound treated as stop sign needs sliplane or straighten southbound curve) need to to eliminate all parking on road in canyon - too dangerous and slows traffic.

323 Hope to not waste budget from tax anymore by bad planning and decision making its by City. It makes me so sad to see the city and place destroy.

324 It is a good idea to open an alternate route to allow avoidance of traffic through the "Y" - please use existing roads as in option 2 or 1 - but keep the route direct rather than that huge loop where the "option 2 balloon" is on the map. IE: follow the curve and come straight down between property borders on #2 please include a left turn option onto 89A.

326 It is vital to be able to turn left coming from West Sedona onto the bypass road. The worst congestion is coming from West Sedona towards Uptown.

327 See attached letter.

328 Yay!

329 looks like option 1 cuts across a building, your info states no buildings will be affected. Please explain. GB KS

331 Traffic congestion is a 'given' that all Sedona residents accept as part of the tourism. But it is essential to keep the tranquility and walkability of the neighborhoods/roads of the residential areas. Once encroached upon, it will only continue, increasing road noise and traffic, lowering property values, and forever changing the very reasons that we, as residents, love the 'neighborhood' feel, peace and serenity. Our neighbors all deserve the same. I would absolutely NEVER agree with putting a road through, and deliberately never use it. I can sit in traffic like everyone else, and enjoy the beautiful and undisturbed land, knowing that it is preserved for future generations.

332 I would NOT support COMDEMING housing areas . I support paying owners fair value of their property if that need arises.

## ResponseID Response

- 333 MAKE ENTRANCE/EXIT TO 89A CLOSER TO USFS LINE - THERE IS A LOT OF HILLSIDE AND CLOSER TO USFS BORDER IS FLATTER.
- 334 3 Comments: 1) the only route that seems to make sense is Option 3 - the shortest route and least impact on neighborhoods, otherwise we would not be in favor of the project 2) need to install a round-about at the intersection of 89A, otherwise, there will be considerable congestion each way at that intersection - project may fail to relieve traffic without one 3) DO NOT place stop additional signs nor traffic lights along Forest Road - this would defeat the purpose of keeping traffic moving smoothly
- 335 None of the proposed routes would alleviate any traffic that backs up on AZ 179 near Tlaquepaque. It would create additional problems in the peaceful and quiet neighborhoods that define Sedona. Other options to try: make some of the routes 1-way only streets and/or make pedestrian bridges to help flow before infringing on private property.
- 336 By allowing Uptown residents to bypass the Y and Brewer roundabouts, we will be mitigating our traffic congestion in that area.
- 338 We are not in favor of this project because, in our opinion, this does not address the current priority traffic problems. We have never had an issue exiting Forest Road. The problem is the timing of the lights and the simultaneous "walk" lights for pedestrians. This proposed project seems to be a misguided "bandaid" to the much larger problems and it will have an adverse impact on the uptown neighborhood while offering nothing but more destruction of our fragile habitat. The current Forest Road egress works sufficiently except for the above mentioned traffic light issue and returning home on certain deadlocked traffic days.
- 340 I like option 3 because the shortest route back to 89A West
- 342 The common good comes before private "good." Beauty is worth the cost - this is Sedona - we CAN afford it. I support your work for the future of Sedona, kind and beautiful. Thank you!
- 344 If possible - avoid condemnation.
- 347 I don't like the idea at all. It's for tourism. Hate this idea. It's not for Sedona, it's for tourists. It makes zero sense to add more housing and rezoning. West Sedona and building more roads. Where is your vision - city is not planning city is reacting! Don't build then destroy prop. Duh
- 348 The actual amount of time saves on a few occasions does not (unknown) damage to neighborhoods, natural beauty, risk of left turn and from 89A and the the projected cost.

## ResponseID Response

349 Resident 1 comments: As with any change, there will be NIMBY but the congestion in Uptown and around the "Y" is unbearable. This is a positive step forward. Note: of the three route option, I would vote for option 3, first. Option 1, second, and option 2, last. As I sat on 89A stuck on Cook's Hill by Adobe Jack trail head, wishing the extension was done! Resident 2 comments: Option 3 would have less impact on homeowners. I know homeowners in this area would say "not in my back yard." But all homeowners feel that way. Pick option with least affect on them or we'll not be able to improve traffic problem. Also it seems like this project would be least attractive for abuse by tourists.

351 On the most congested day, I may use it only because it's there. I don't think it is fair to the people living there that they should suffer permanent road noise, destruction of their view and reduced value of their property for something I may use a couple times a year. If the traffic problem is fixed passing T laquepaque then there will be no need for this road to be built. We should concentrate on that problem first and stop pushing for roads through our neighborhoods. If this project is pushed through option 3 is the least offensive.

352 I (we) have so sorely longed for a solution like this!

353 Not happy with this at all.

354 The sooner one of these options is completed, the traffic situation will be safer for all.

356 Left turn access from 89A nb is essential.

359 There will be likely opposition that will be organized and threaten law suit. I am ready to counter legal action in favor of the project and against minority personal interest. I like Option 3 first then Option 1.

360 Option 3

362 It appears there will a left turn on 89A in an extremely busy section. What is the plan more lights? Too close to the multiple roundabouts. Options 1 and 2 seem to require the least eminent domain purchases but are circuitous and not convenient at all. Option 3 makes most sense however properties will be sacrificed and I oppose that.

364 We desperately need access to 89A via Forest Road extension. I am considering selling my home in Uptown because of not having another way into West Sedona. Traffic is a nightmare now as it is.

365 great idea!

366 Reduce the ridiculous tourism numbers. It's nuts. Those who reside in Sedona can't use the town because the damn tourists are like an invasion. this town has been ruined by over-marketing. Stop national ads and take down highway billboards. Enough is enough. Greedy guts marketing makes for Sedona's demise as a nice community to live in. For Shame. Sedona: A nice town ruined by excessive tourism.

## ResponseID Response

367	Going north on 89A towards Uptown, a left turn across 89A is NUTS!
368	I have serious reservations about what the project will do congestion and do at the Forest Road and N SR 89A intersection.
369	It appears to me that there will still be congestion. I do not believe this plan will prevent congestion arriving from 179 nor divert traffic at the Y substantially enough to warrant the condemnation or acquisition of land. How about using property easements rather than using other people's land? Make Sedona a "walking" town with parking available and additional trolleys for visitors. I would like to have a bike path/walking trail that is further away from the traffic so we can walk/bike from Uptown to West Sedona.
370	Option 3 for route is by far the best route option. Sidewalks are important; bike lanes less so.
371	I would not use it! It would take just as long if you went by way of the light on 89A and took the roundabout. Traffic would be blocked on your new road trying to exercise a right turn onto 89A just like at the post office. See attached. It's a bad idea - back to the drawing board! Forget it, it doesn't pencil out!
372	Thanks for all you do! Excellent work.
374	Prefer option 3 then 1 then 2 least. Biggest concern would be the left turn into the new route from 89A.
376	It will help but not too much. The problem is much bigger. We need a bypass from 179 (around Chapel of Holy Cross) to West Sedona. This would really help, one hundred times more than the Forest Road extension.
381	Option 3 is the most logical route. It could be slightly rerouted to avoid the tennis courts. Should also be 2-lane road.
382	More information on affected properties would be needed to answer this most effectively. That being said, if this could be useful to many residents as well as bikers and pedestrians, I strongly support the project. Thank you.
383	I have lived on Jordan road since 2010. I work in West Sedona. I would use this twice a day everyday, minimally.
385	Very concerned about current lack of egress from Uptown and support an alternative exit (i.e. Camp Fire situation). Avoidance of traffic in tourist area also welcome but this is secondary to fire concerns. Should use option that minimizes acquisition and or condemnation of land while achieving other objectives.
386	This project is long overdue. This opening - any of 3 options highly desirable.
388	My answers relate to option 3. Options 1 and 2 are poor choices. There must be other options!

**ResponseID    Response**

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389                    Your aerial view is somewhat ambiguous. I think you should go through forest land.

November 7, 2018

To the City of Sedona

I commend the city for its efforts in trying to mitigate the traffic congestion which is happening with increasing frequency, even at non-holiday times. Your three proposed by-passes for the Y and the post office "roundabouts" appear to not sufficiently solve the problem.

The distance from Airport Road to the proposed interchange for the by-pass is a little over a mile. This is a major area of congestion. One traveling will not have much alleviated by your proposed solutions. One will still be caught in most of the congestion. I also think that this solution might create an attractive nuisance for out-of-towners who, in frustration, may decide to take the alternate route, thus potentially creating a new place for congestion. Even now, people make illegal u-turns on the downhill by Mariposa to escape the traffic.

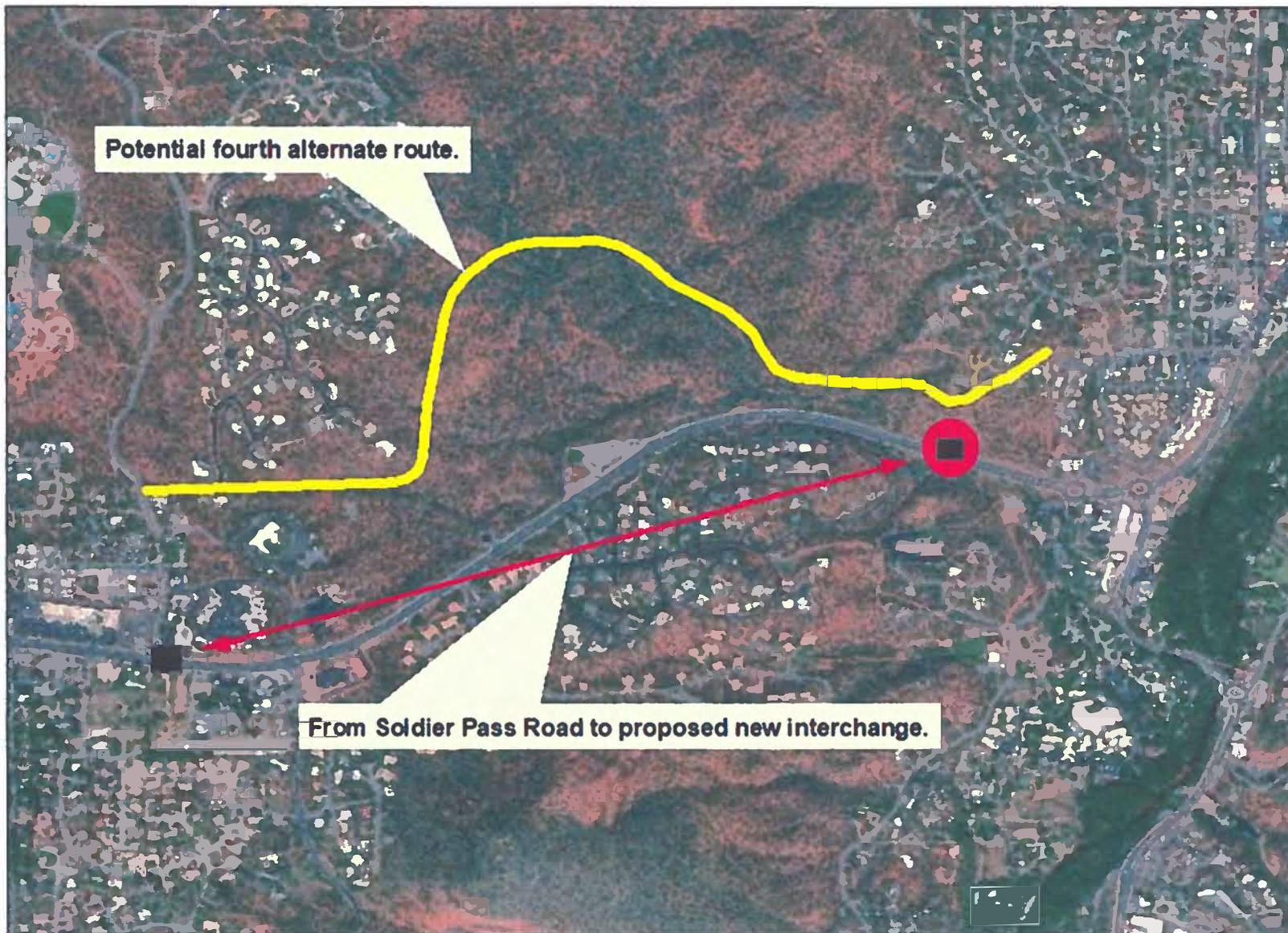
I am enclosing a diagram of a potential fourth route. It starts at the same location you suggest but ends at Soldier's Pass Road. The advantages? It by-passes completely the area of greatest congestion. It will not be seen as an attractive alternative to non-residents, thus eliminating, or mostly eliminating a potential new congested route.

*I speculate that your proposed routes have fewer ownership problems and are less costly than what I suggest.* There are issues with Coconino National Forest ownership which must be addressed. Real route analysis needs to begin. Even with added costs of construction and negotiations, this fourth alternative route may solve the problem better than the others.

It has occurred to me that you may have already considered this new route and ruled it impractical. If that is the case, forgive me for not doing my research. On the other hand, if this route intrigues you, by all means how can it happen?

Thank you for your time.

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]



Potential fourth alternate route.

From Soldier Pass Road to proposed new interchange.

To Whom It May Concern:

This survey proved harder to fill out than we first thought. We couldn't just mark an answer, so we provided additional thoughts on each question.

1. We feel we don't have enough information to know whether to support the project or not at this time.
  
2. We would use the extension because of the bottlenecks. However, if you can solve the problems that create the bottlenecks, would you even need the Forest Road extension? If the problems are unsolvable, then the extension might be a good idea for uptown residents. As it is we plan our driving outings around tourist traffic and bottlenecks just to make our lives easier.  
My wife won't use the extension if it is narrow, windy and cliffy.
  
3. We are not in favor of infringing on current homeowners property if they are not in favor the project. We might be in support of Option 3, but what would that roadway look like? (Steep hill?)
  
4. In regards to the width of the roadway, we don't want a narrow road to drive on. We currently feel that business and construction trucks would also use this road. (A number of the people we have hired to work on the house time their trips out to uptown in the mornings or other none traffic times.) So if there are larger trucks (construction, delivery, garbage, etc.) using the extension, then a wide enough road to accommodate them would be needed.
  
5. Other comments or concerns:
  - The terrain just looks too steep.
  
  - Should the 89A end of the extension come out further up Cook's Hill or should the extension run like a frontage road for a ways before tying into 89A?
  
  - There would need to be a left hand turn lane off of 89A to get to the extension.
  
  - We have lived here almost 11 years. The backup on Cooks Hill through Tlaquepaque wasn't always there. So would solving that problem, eliminate the need for the extension? Maybe the extension should be on the backburner while other backups are dealt with.

We appreciate you asking our opinions on this project.



OPTION 1 - TOO EXPENSIVE!

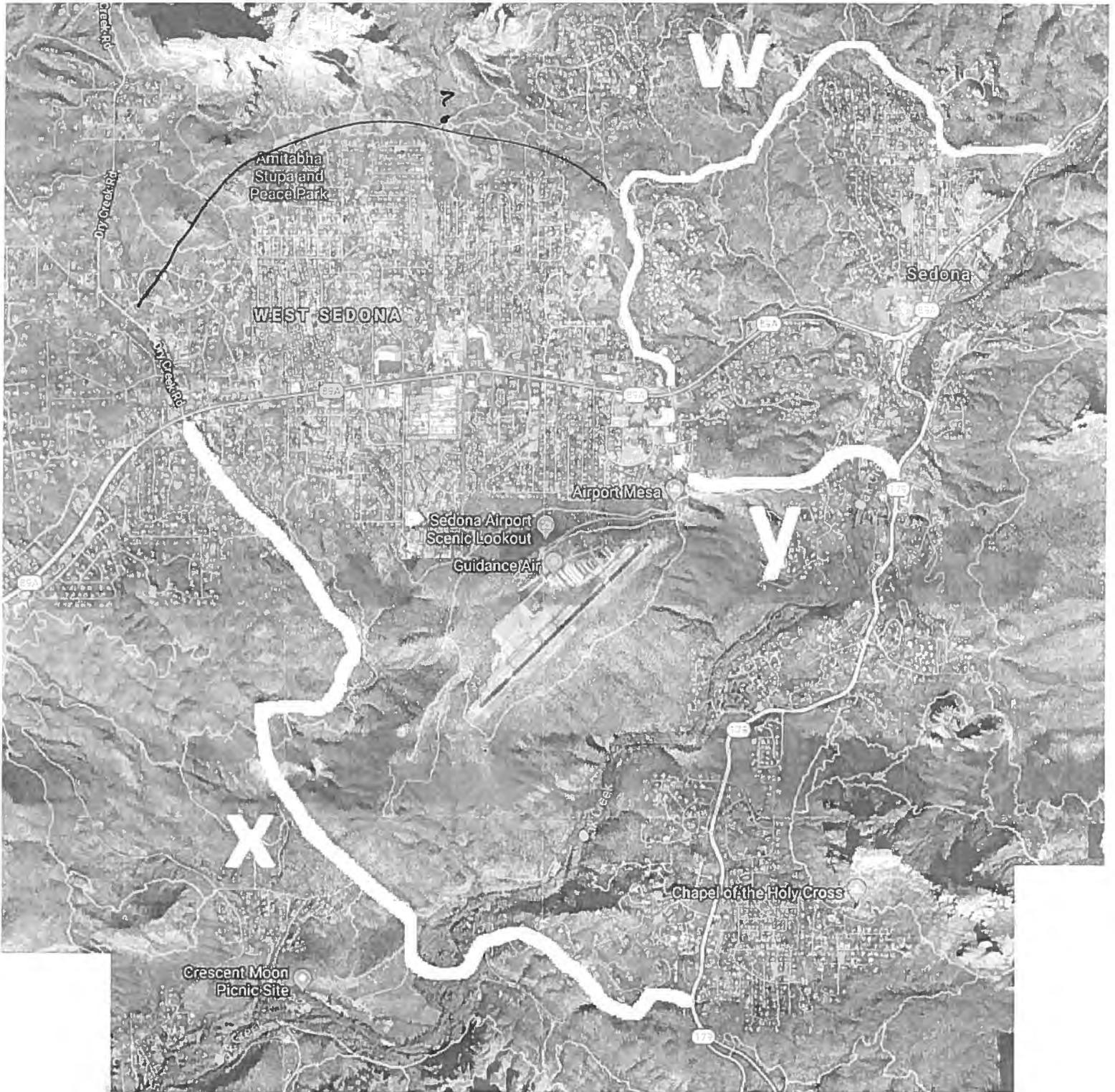
AN AWFUL LOT OF MATERIAL HAS TO BE REMOVED TO QUARRY DOWN A ROAD TO STREET LEVEL (89A) IN ORDER TO CONNECT. PLUS IT WOULD BE VERY DANGEROUS FOR TRAFFIC EXITTING ONTO 89A AS A CLIFF WOULD BAR THEIR VIEW OF ONCOMING TRAFFIC ON 89A SAME WITH YOUR OPTION 3 CONNECTING TO OPTION 1

OPTION 2 - AN AWFUL LOT OF MATERIAL WOULD NEED TO <sup>BE</sup> TRUCKED IN TO BUILD UP A ROAD BASE IN THE VALLEY AREAS TO REACH 89A. SAFER YES BUT VERY EXPENSIVE. PLUS, DURING THE MONSOON SEASON OR ANY RAIN STORM COMES INTO THAT AREA, YOU HAVE A DRAINAGE PROBLEM, THAT COULD WASH OUT YOUR NICE NEW ROADWAY.

YOU WANT TO FIND OUT HOW IT WOULD WORK FOR THE DRIVERS? PULL INTO THE POST OFFICE, THEN TRY TO DRIVE OUT! YOU WILL BE PATIENTLY WAITING WHILE EVERYBODY BLOWS AROUND THE FIRST ROUNDABOUT LIKE THEY'RE TRYING TO QUALIFY FOR A RACE. INCIDENTLY, THOSE ROUNDABOUT ARE TOO SMALL!

INSTEAD OF FILLING OUT FORM ("FOREST ROAD EXTENSION") — I AM SENDING THIS MAP (ON BACK) WITH REAL SOLUTIONS TO THE TRAFFIC MESS THAT IS SEDONA, PARTICULARLY ON WEEKENDS.

- ① WE NEED A BYPASS ROAD FROM 179 NEAR HOLY CHURCH TO WEST SEDONA, SO EVERYTHING DOESN'T HAVE TO GO THRU "Y". IT IS A BOTTLENECK. SEE ALTERNATIVE X ON BACK OF THIS.
- ② MAYBE A SECOND BYPASS WOULD HELP. SEE ALTERNATIVE ROUTE Y ALSO ON BACK. ANYTHING WE CAN DO TO GET TRAFFIC AWAY FROM THE TWO ROUNDABOUTS WOULD HELP.
- ③ THERE IS LITTLE ONE CAN DO WITH 89A UP DAK CREEK, BUT ANOTHER BYPASS NORTH OF UPTOWN WOULD HELP. SEE ALTERNATIVE W ON BACK.
- ④ SOONER OR LATER, SEDONA WILL HAVE TO DO SOMETHING RADICAL. WE CANNOT HAVE A THREE ROAD CITY CONVERGING ON ONE SPOT. THIS WAS OK WHEN I WAS A BOY WHEN SEDONA WAS 2 GAS STATIONS, A FEW STORES IN UPTOWN AND SCATTERED BUILDINGS ALONG WHAT IS NOW WEST SEDONA. THAT WAS 1960 OR SO.
- ⑤ WHOEVER PLANNED AND BUILT THE BEAUTIFUL ONE-LANE ONLY, NO PASSING STRETCH OF ROAD ON 179 FROM BACK O BEYOND TO TOWN OUGHT TO BE SHOT. (KIDDING, KIND OF)



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To: Lauren Browne

Lauren I talked with you last Tuesday on the phone. I am very concerned by the new "proposal" you have come up with ...the revisions for Uptown Sedona.

An alternate route is fine if you go through a part of the city where noise and traffic are not a problem however, when you are going through a quiet neighborhood...this is a drastic un-improvement!

With this plan you will bring traffic...traffic and more traffic to a now peaceful and lovely neighborhood. Not to mention the exhaust fumes.

Dirt into peoples homes and yards.

Littering...both from cars and people walking

Lack of privacy for the homeowners

It will eventually become a main thoroughfare

It brings many more cars up into the hills by the homes during rush hours...and again year after year people will be using the path...on a daily basis. not just "rush hours" but all of the time. Traffic will be a problem in what is now a peaceful neighborhood.

Emergencies??? Sounds to me like sirens and fast driving ...fire trucks, police and ambulances.

This is very unpleasant... to say nothing about the horror on peoples nerves and well being.

You add cars, and emergency vehicles...and you have a big MESS in a now quiet neighborhood.

I know only too well that this is the outcome for residents who love their homes.

There is **traffic all day long...all night long.....emergency vehicles now going fast with sirens blaring!**

I don't think that any one in the area would be happy about this idea . The long range interruption in peoples lives and complete change in the feel and pride that people have in their homes would be changed forever.

Not to mention the lovely, peaceful neighborhoods will be destroyed . As well, the value of all properties will go down.

I am not in support of this move.

Thanks for your time,





**CITY COUNCIL  
AGENDA BILL**

**AB 2449  
December 11, 2018  
Regular Business**

**Agenda Item: 8b**  
**Proposed Action & Subject:** Discussion/possible direction regarding recommendations made by the City Council Small Grants Review Subcommittee on possible changes to the criteria and process used to make awards under the City's Small Grants Program.

<b>Department</b>	City Manager's Office
<b>Time to Present</b>	15 minutes
<b>Total Time for Item</b>	60 minutes
<b>Other Council Meetings</b>	October 24, 2017, November 14, 2017, January 23, 2018
<b>Exhibits</b>	<ul style="list-style-type: none"> <li>A. FY18-19 City of Sedona Grant Application (redline)</li> <li>B. FY18-19 Grant Evaluation Criteria (redline)</li> <li>C. FY19 Survey Responses – Applicants</li> <li>D. FY19 Survey Responses – Non-Applicants</li> </ul>

City Attorney Approval	Reviewed 12/4/18 RLP	<b>Required</b>
		\$ 0
City Manager's Recommendation	Consider recommended changes to the small grants program provided by the Council Committee.	<b>Amount Budgeted</b>
		\$ 0
		Account No. N/A (Description)
		Finance Approval <input checked="" type="checkbox"/>

**SUMMARY STATEMENT**

**Background:** The City of Sedona created a small grants program to encourage and fund activities, programs, or events developed by 501(c) organizations that serve the public and provide a fair return value to the City. Eligible programs, activities, or events include those that promote public health, safety, general welfare, and/or foster the well-being and prosperity of the City and its residents.

On December 13, 2016, the City Council added the reexamination of the City's Small Grant Awards Program to its list of Council priorities for 2017. On October 24, 2017, City Council provided consensus direction that a Council Committee should be formed to work towards making those additional changes, and on November 14, 2017 the Council authorized the Mayor to form a City Council Committee to conduct the review and bring recommendations back to the full Council for consideration and direction. The City Council Small Grants Review Committee included Mayor Moriarty and former Councilors Jon Thompson and Tom Lamkin.

They met twice, on December 5<sup>th</sup> and 19<sup>th</sup>. Several short-term recommendations were implemented at Council's direction for the FY19 small grant cycle.

While the short-term modifications could be applied to the FY19 process, Council also agreed that the program may benefit from more substantive changes that would require additional discussion. They directed the subcommittee to reconvene again after the FY19 process concluded and attempt to identify additional opportunities for improvements.

The Council Committee met again on October 29, 2018 (including Mayor Moriarty and former Councilor Thompson, former Councilor Lamkin was excused) to continue their work and discuss results of the FY19 process changes and consider further modifications in preparation for the FY20 process. This discussion included a review of feedback from applicants and participants in the FY19 process, and input from the small grants volunteer coordinator, Stephanie Giesbrecht.

The following topics were discussed and agreed upon by majority consensus during the October 29, 2018 meeting:

1. Grants workshop and grants interview shall be encouraged, but not mandatory.
2. No categories (i.e. events, food and nutrition, shelter, etc.) or separations (i.e. organization size, annual budget, etc.) shall be established.
3. Requirements of the application process were determined not to be onerous. This conclusion was supported by nearly all feedback received both from attendees of a nonprofit connections meeting held September 2018 that featured Mayor Moriarty as the monthly speaker and included a discussion about the City's small grant program and from surveys issued to everyone that requested an application in the FY19 small grants process. *(Surveys were sent to 39 unique organizations that requested applications, 23 to organizations that applied for grants and 13 that did not apply. The overall response rate for both surveys combined was over 43% and all but one (94%) of the responses rated their overall impression of or experience with the application process as very positive or positive. Survey results are included as Exhibits C and D)*
4. Automation of the grant process shall not be contemplated until implementation of new or upgraded citywide internet platform is complete.
5. A request for information about the purpose and intended use of any reserve funds held by applying organizations shall be added to the financial information section of the grant application.
6. Board members and employees of applicant organizations shall continue to be prohibited from participating on the review committee and the small grants volunteer coordinator shall continue to identify and select new review committee members.
7. The grant process and cycle shall continue to occur once annually.
8. The general criteria to *"Strive for programs that are innovative and distinctive."* shall be removed from the general criteria for grant funding.

If approved by the full Council, all modifications to the process listed in the items above will be implemented for the FY20 grant process.

The Council Committee also discussed eligible and ineligible organizations during the October 29, 2018 meeting but no changes were agreed upon by majority consensus, therefore discussion and possible direction from Council is required.

Currently, eligible and ineligible organizations for the small grants program are defined as:

**Eligible organizations:**

1. Recognized by the IRS as a 501(c) organization.
2. Provides documented benefits directly to City of Sedona residents.
3. Have an independent Board of Directors (of at least three or more).
4. Demonstrates the leadership and financial capacity to create significant and long-lasting benefits to the community or to the target population.

**Ineligible organizations:**

1. “Conduit” organizations, and/or fiscal agents, using City funds to support other organizations or individuals.
2. Organization is already receiving City funding through another source (Examples: an existing service contract or agreement, etc. with the City).

Several possible changes to these eligibility requirements were discussed including:

- Removal of the eligibility requirement for applicant to be a 501(c) organization. *The removal of this requirement would allow all nonprofit organizations (such as school districts and other government agencies), “Conduit” organizations, fiscal agents for pass-through funding, for-profit organizations, and individuals to apply for funding.*
- Removal of the requirement that organizations must have an independent Board of Directors of at least three or more individuals.

If there is Council direction that the eligibility requirements should be changed, staff recommends that a new subcommittee of City Councilors be formed. This subcommittee would identify and analyze the impacts of those changes on the existing process, determine the extent the process would need to be altered, and suggest the proposed timing of the implementation of those changes.

**Community Plan Consistent:** Yes - No - Not Applicable

Maintaining the City’s small grants program is a key priority identified in the Community Plan, partnering with citizen volunteers and City Council (pg. 109 Sedona Community Plan).

**Board/Commission Recommendation:** Applicable - Not Applicable

**Alternative(s):** Maintain existing program criteria and processes for FY20.

**MOTION**

**I move to:** for discussion and possible direction.

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**City of Sedona  
Small Grant Application  
Fiscal Year 2018-2019**

*INSTRUCTIONS*

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Carefully read and follow the instructions as some information has changed. Incomplete applications will not be reviewed for funding.

Application Request: All applicants must provide their first and last name, organization name, address, phone number and email address to receive the application and be eligible to apply. If you have not already provided a formal request, please email your information to Megan McRae at [mmcrae@sedonaaz.gov](mailto:mmcrae@sedonaaz.gov).

Due Date: Applications must be received, not postmarked, by **April 30, 2018 at 12:00 p.m. (noon)**.

Only one (1) grant application will be accepted from each organization. An organization may not be eligible to receive grant funding if already receiving City funding through another source. For example, the organization has an existing service contract or agreement with the City.

The Grant Application must include the following sections in the order indicated below:

- One (1) completed **Grant Application** form signed by Board Chair/President or Executive Director.
- Completed **Financial Information** section with clearly marked headers including income and funding information as requested, financial statements, 501(c) IRS letter, organizational budgets and specific program/activity/event budget on the provided worksheet. For any financial questions that require a narrative response, the answer must be typewritten and include the question prior to your answer.
- Completed **Narrative Response** section with clearly marked headers including Organization Overview and Supplemental Questions with answers fully included.
- If your organization received funds in the FY17-18 grant cycle, attach a copy of your **Final Report (also due April 30, 2018)**. If your organization has been granted an extension for the submittal of its Final Report, please attach a **status update** on the use of the funds, expenditures and accomplishments to date, and timelines to complete the program, activity or event.
- If you are partnering with another organization on your program, activity or event, attach a **letter of support** from the partner organization.

If applying for funds to be used for destination marketing, you are encouraged to contact the Chamber of Commerce to identify possible partnerships for marketing opportunities and to ensure marketing efforts being pursued by your organization and the Chamber are complimentary, and efforts are not being duplicated. Also, it is suggested that your organization work with Sedona Events Alliance calendaring to avoid event conflicts and/or seize partnership opportunities for event marketing.

Use white paper. Number all pages of your application. Provide responses in the order listed in the application. Narrative responses should have clearly marked headers and

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must be typewritten leaving at least 1-inch margins and using a 12-point Arial font. Narratives must be typewritten using a 12-point Arial font and not exceed six (6) single-sided (or 3 double-sided) pages for all responses (not including attachments or charts/diagrams). Be brief and to the point and number all pages. Include the question prior to your answer.

Do not put the information in a binder and do not include color photographs or other color materials. Do not bind or staple application. **Use only a paper or binder clip.**

Do **not** include materials other than those specifically requested at this time.

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## OBJECTIVES, CRITERIA, EVALUATION

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The City of Sedona encourages and may fund programs, activities or events provided by 501(c) organizations that provide a public service or benefit and are consistent with the City's funding priorities.

### OUTCOME OBJECTIVES

- Assurance that all funding provides a public service or benefit (see examples under "General Criteria for Grant Funding" below).
- Fair, equal and open opportunity for all not-for-profits to participate.
- Potential access to higher funding level for all organizations.
- Structured, objective and consistent selection process.
- Stimulate creative proposals and innovation in use of public funds.

### GENERAL CRITERIA FOR GRANT FUNDING

#### Eligible programs, activities or events should:

- Promote public health, safety, general welfare, prosperity or contentment.
- Significantly impact the well-being and prosperity of Sedona residents.
- Demonstrate that City funding is ~~essential to~~ an important factor in the success of the program or service.
- Directly benefit City of Sedona residents and preferably occur within the City limits.
- ~~Strive for programs that are innovative and distinctive.~~
- Provide documented benefits directly to City of Sedona residents.
- Advance the goals established in the Sedona Community Plan.

These may include but are not limited to:

- A wide range of arts and cultural activities that are free or nominal cost. (Past examples: youth art programs, public workshops, exhibitions and special public performances.)
- Events or programs designed to foster a greater sense of community or provide a social service, primarily serving Sedona residents. While visitors or others outside the community may attend or participate, it is meant to enhance the quality of life in Sedona. (Past examples: Arts Festival, Film Festival and Wolf Week.)
- Events or programs designed to enhance the quality of life for, or provide a social service to, Sedona residents. (Past examples: recycling programs, trail maintenance and enhancement, youth mentoring programs, special needs transportation)

#### Ineligible programs, activities or events:

1. An organization may have members, but the program, activity or event funded by the City shall not discriminate based on membership status or economic status. (For example, members have first right of refusal on participation in a City funded program, activity or event.)
2. Fund travel or training for organization officers, members or volunteers.
3. Provide direct grants or scholarships to individuals.
4. Fund organizational deficit reduction, endowments or fundraising campaigns.
5. Religious or other faith-based programs, activities or events.

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The following criteria apply to the program, activity or event that receives City funding.

Eligible organizations:

1. Recognized by the IRS as a 501(c) organization.
2. Provides documented benefits directly to City of Sedona residents.
3. Have an independent Board of Directors (of at least three or more).
4. Demonstrates the leadership and financial capacity to create significant and long-lasting benefits to the community or to the target population.

Ineligible organizations:

1. "Conduit" organizations, and/or fiscal agents, using City funds to support other organizations or individuals.
2. Organization is already receiving City funding through another source (Examples: an existing service contract or agreement, etc. with the City).

**EVALUATION PROCESS**

Grant applications will be evaluated on their individual merits. Funding will be allocated to requests based on their merit scores. Applications will be evaluated on a 1 (low) to 5 (high) scale and scored in accordance with the Grant Evaluation Criteria. Each applicant will be scheduled for a brief interview with the Grant Evaluation Committee. The purpose of this meeting is not for the applicant to make a presentation to the Committee but rather to allow the Committee an opportunity to ask questions and/or seek clarification regarding the application materials submitted.

**GRANT EVALUATION COMMITTEE**

A Citizen Work Group experienced in grant review will evaluate all grant applications.

The Committee will provide recommendations to the City Council for final funding approval. The Committee will treat all applications equally, unless otherwise directed by the City Council.

**TIMELINE**

Below is a preliminary timeline for the fiscal year 2018-2019 funding process.

- February 14, 2018 Grant applications available
- March 22, 2018 Optional Applicant Workshop (10:00 a.m. – 12:00 p.m.)
- April 30, 2018 **Grant applications due by 12:00 p.m. (noon)**
- May 30 - 31, 2018 Evaluation Committee meets with applicants, reviews and scores applications and makes funding recommendations to City Council
- July 2018 City Council approves funding awards

For questions regarding the application, please contact Stephanie Giesbrecht at (928) 301-5858 or stephanie@esedona.net.

**Return completed applications by April 30, 2018 at 12:00 p.m. (noon) to:**

City Manager's Office  
City of Sedona  
102 Roadrunner Drive  
Sedona, AZ 86336



**FY18-19 Small Grant Application (cont.)**

<b>Establishment Date of Organization:</b>	
<b>Dates of Organization's fiscal year (i.e. Jan. - Dec.)</b>	

**Your Organization's staff composition in numbers:**

<i>Paid Full Time</i>	<i>Paid Part Time</i>	<i>Unpaid Staff, Volunteers &amp; Interns</i>

**PROPOSAL INFORMATION**

<b>Describe the program, activity or event for which you are seeking funding:</b>

<b>Grant amount requested:</b>	<b>\$</b>
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<b>Estimated Number of unduplicated City of Sedona Residents Served (by program, activity or event):</b> <i>For example, a teacher has 30 students. This number would be 30 and not 150 students per week.</i>	
<b>Estimated Number of City of Sedona Businesses, if applicable, served (by program, activity or event):</b>	
<b>Estimated percentage of Residents vs. Non-Residents Served (by program, activity or event):</b>	
<b>Geographic area served (specific boundaries) (by program/activity/event, if necessary):</b>	

**AUTHORIZATION**

*The undersigned **Board Chair/President or Executive Director**, does hereby certify that the information set forth in this grant application is true and correct, that the Federal tax exemption determination letter attached hereto has not been revoked and the present operation of the organization and its current sources of support are not inconsistent with the organization's continuing tax exempt classification as set forth in such determination letter.*

<b>Printed Name:</b>	
<b>Title:</b>	
<b>Signature:</b>	
<b>Date:</b>	

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## FINANCIAL INFORMATION

Provide the following financial information as attachments with clearly marked headers. Financial questions that require a narrative response must be typewritten using a 12-point Arial font and include the question prior to your answer.

1. Provide a list of organization's income sources and amount and percentage of total income.
2. Provide a signed income and expenses statement and balance sheet for the most recent year end.
3. Provide proof of current IRS recognized 501(c) status.
4. Provide the current year line-item budget for revenues and expenditures, for your organization as a whole.

5. Please include an explanation of the purpose and use of any reserve funds held by the organization.

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5-6. List total City of Sedona funding received by your organization for the previous three (3) fiscal years:

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6-7. What will be the impact/consequence(s) to your program, activity or event if only partially funded by the City?

7-8. Provide the current year line-item budget for the specific program, activity or event for which you are seeking funding. This must be submitted on the Program, Activity or Event Budget Worksheet provided (*see next page*).

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## NARRATIVE RESPONSE

Narratives must be typewritten using a 12-point Arial font and not exceed **six (6) single-sided (or 3 double-sided)** pages for all responses (not including attachments or charts/diagrams). Be brief and to the point and number all pages. Include the question prior to your answer.

### ORGANIZATION OVERVIEW

1. State the organization's mission statement, purpose and goals.
2. Brief description of organization's current programs, activities or events, including statistics and specific accomplishments. Highlight new or different activities within the last year, if any, for your organization.

### SUPPLEMENTAL QUESTIONS

1. How does your program, activity or event provide a public service or benefit, as defined under *Eligible Programs, Activities or Events*? Describe how it will:
  - a. Provide a direct benefit to Sedona residents.
  - b. Promote and serve the health, safety, general welfare, prosperity or contentment of Sedona residents.
  - c. Provide equal and open access for all members of the community or the target audience with no one being easily excluded.
2. Describe the administrative strengths and experience of those who planned and will conduct your program, activity or event. Please address:
  - a. The administration, leadership and management experience of all primary individuals involved in conducting the program, activity or event.
  - b. Specific skills and record of past success of those in organization leadership roles in conducting the type of proposed activities.
3. What specifically will you accomplish with the City's funding?
  - a. What result do you anticipate and why?
  - b. How will your program, activity or event ensure activity that would not otherwise occur without this funding?
4. How many Sedona residents will your program serve and how will your program impact those residents? Please address:
  - a. If you plan to involve other sectors of the community to demonstrate community support (i.e. businesses, faith communities, not-for-profit sector).
  - b. Describe the demographic make-up (consider if target population is primarily residents or visitors) of unduplicated Sedona residents that are expected to benefit in the program, activity or event and the basis for your estimate. If possible, provide an estimated ratio of residents versus visitors.
  - c. The type of experience, information, education or community connection the target population will gain from this program, activity or event.
  - d. If your program, activity or event generates on-going benefits to the City of Sedona.

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NARRATIVE RESPONSE (cont.)

5. How will you measure the success of your program? Please describe:
  - a. What success will look like.
  - b. Your overall measurement strategy, types of qualitative and/or quantitative data to be collected, collection process and evaluation methods you will apply.
6. Describe the needs that exist in Sedona (and how your program, activity or event addresses those needs?)
7. Describe the financial strength and stability of your organization. Please connect this response to financial data provided on the specific Program, Activity or Event Budget Worksheet. Be sure to address:
  - a. The diversity by percentage of funding sources used overall by your organization.
  - b. The diversity by percentage of funding sources for the specific program, activity or event for which you are requesting funds.
  - c. What percentage of your total expenses is used for administrative overhead versus all of your organization's programs, activities or events.
  - d. What percentage of the public funds you receive will be used for administrative purposes versus the program, activity or event budget for which you are applying.
  - e. What percentage of your organization's total financial resources will be dedicated to this program, activity or event.
8. What additional benefits, if any, will your program, activity or event provide?

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# Grant Evaluation Criteria

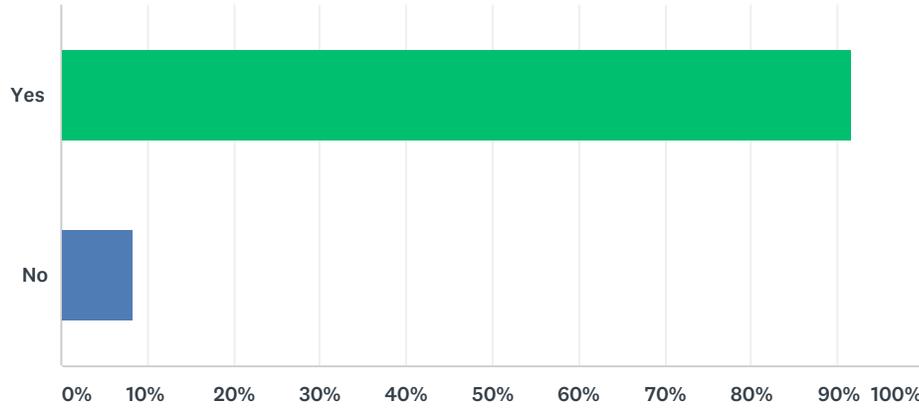
Rating Scale of 1-5, 1 = low, 5 = high

- A. Meets a public service or benefit per the General Criteria for Grant Funding
  - 1. Provides documented benefits to City of Sedona Residents:
    - a. Direct public benefits as opposed to an indirect or remote benefit,
    - b. Programs and services that promote public health, safety, general welfare, prosperity or contentment, and,
    - c. Equal and open access to all members of the community with no one being easily excluded.
- B. City Priority/Need
  - 1. Funding request is in line with the Community Plan and City Council's Priorities
- C. Community Impact
  - 1. Breadth and depth of reach into community
  - 2. How well is target population identified
  - 3. How well is target population served
- D. Organization's Administrative Capacity
  - 1. Capacity- Can the organization be able to accomplish their goals with the staff/volunteers they have?
  - 2. Appropriate mix of employees and volunteers
  - 3. Leadership/management depth
- E. Financial Strength
  - 1. Ability to generate revenue streams
  - 2. Cash reserves - reasonableness of reserves for this type of organization (too much? too low?, just right?)
  - 3. Financial sustainability
  - 4. Overall strength of financial statements
- F. Financial Need
  - 1. Does organization have other sources of revenue?
  - 2. Percentage of City funding for program vs. outside funding
  - 3. Adequately demonstrate need for monetary assistance
  - 4. Is City funding ~~essential to provide~~ an important factor in providing the service/program?
- G. Performance Indicators
  - 1. Provided specific measurements against objectives
  - 2. How appropriate and adequate are the tools used to measure performance?
  - 3. Quantitative and qualitative analysis
- H. Overall recommendation
  - 1. This is a subjective rating of the reviewer's impression as to whether or not the City should fund the organization

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### Q1 Were you awarded a grant?

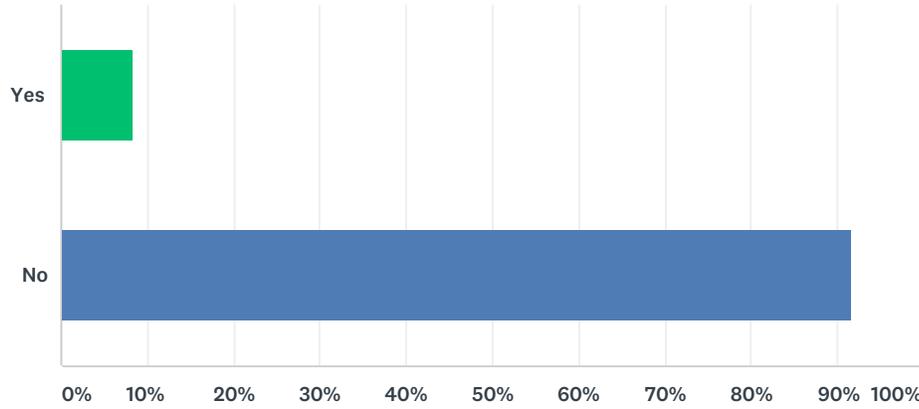
Answered: 12 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	91.67%	11
No	8.33%	1
TOTAL		12

## Q2 Did you attend the Applicant Workshop on March 22, 2018?

Answered: 12 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	8.33%	1
No	91.67%	11
TOTAL		12

**Q3 If you answered Yes to Question 2, please let us know if you found the workshop helpful to the process and what you would recommend changing or adding to improve the value of the workshop.**

Answered: 2 Skipped: 11

#	RESPONSES	DATE
1	The workshop was very helpful and enjoy the workshop.	8/18/2018 10:33 AM
2	I went to the workshop the first time we applied and found it very helpful. Didn't feel the need to go again.	8/8/2018 5:08 PM

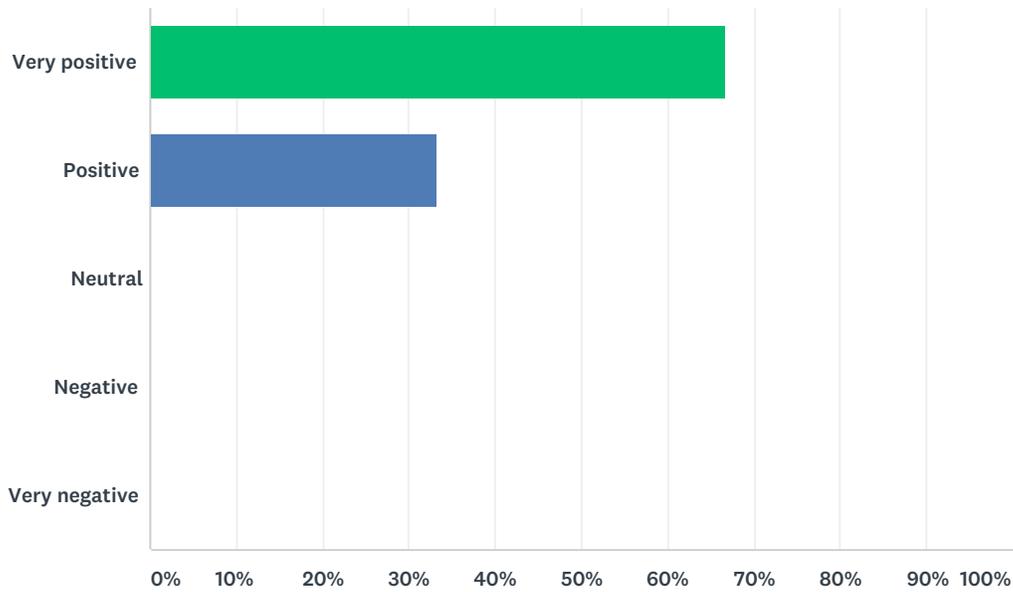
## Q4 If you answered No to Question 2, please let us know why you decided not to attend the workshop.

Answered: 10 Skipped: 3

#	RESPONSES	DATE
1	Another member of our organization attend the workshop and he found it very helpful.	8/18/2018 1:58 PM
2	I was not aware of the workshop. I would like to be notified of the next opportunity. Thank you kindly	8/15/2018 12:45 PM
3	Schedule conflict	8/10/2018 4:34 PM
4	March 22. I was at the Governor's Arts Awards where one of our faculty was receiving an award as an individual art educator.	8/9/2018 11:55 AM
5	Unfortunately I was not available as that was the day before my wedding	8/9/2018 8:36 AM
6	I was traveling overseas	8/9/2018 7:40 AM
7	I had written a grant the year before so did not feel it necessary.	8/8/2018 6:34 PM
8	I have written successful grants for over 40 years.	8/8/2018 3:26 PM
9	Unfortunately those who work on the grants were not available the date of the Workshop. However, this is a process the grant writers have been through many times and the requirements were quite clear. The grant writing process went fairly smoothly and the few questions we had were answered by city staff. However, we do feel it would have been preferable to have someone attend the Workshop.	8/8/2018 3:18 PM
10	I was out of town and had written grant requests in the past. I did take advantage of the small business adviser provided by the city - very helpful.	8/8/2018 12:57 PM

### Q5 How would you rate your overall experience with the small grant process?

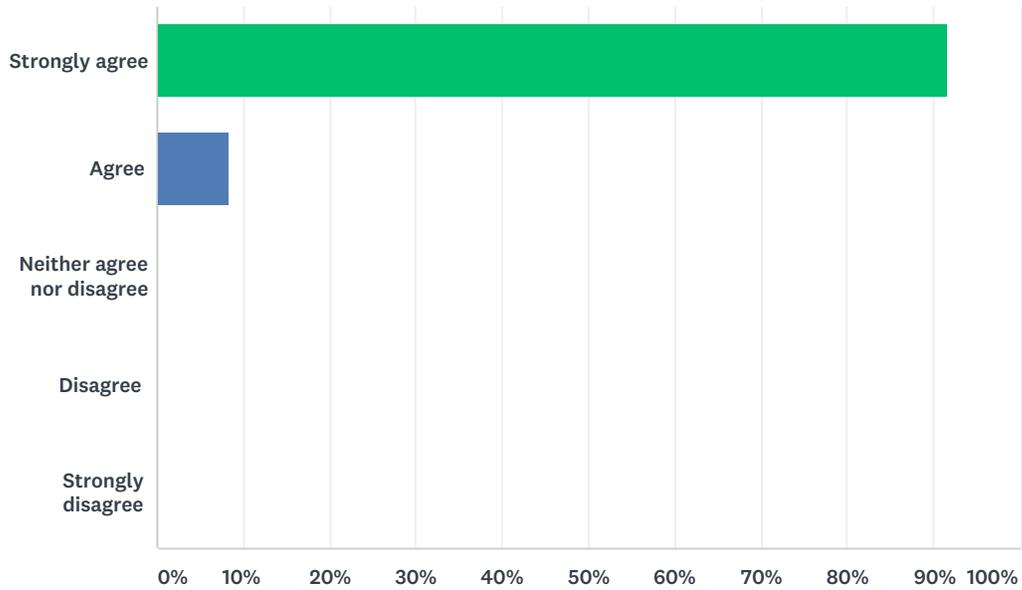
Answered: 12 Skipped: 1



ANSWER CHOICES	RESPONSES	
Very positive	66.67%	8
Positive	33.33%	4
Neutral	0.00%	0
Negative	0.00%	0
Very negative	0.00%	0
<b>TOTAL</b>		<b>12</b>

### Q6 I was given enough time to complete my application.

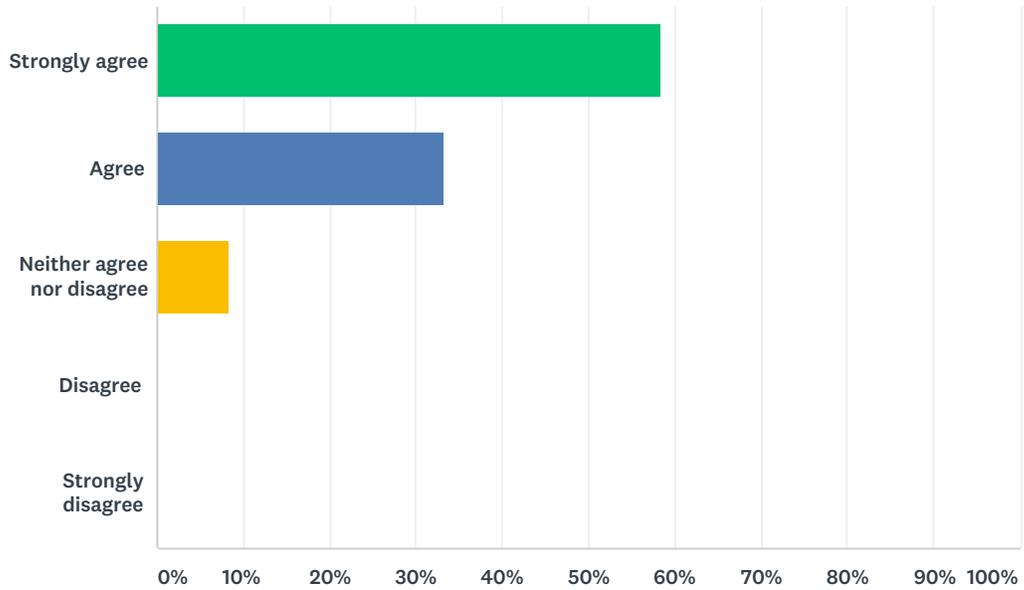
Answered: 12 Skipped: 1



ANSWER CHOICES	RESPONSES	
Strongly agree	91.67%	11
Agree	8.33%	1
Neither agree nor disagree	0.00%	0
Disagree	0.00%	0
Strongly disagree	0.00%	0
<b>TOTAL</b>		<b>12</b>

### Q7 The application process was easy to follow.

Answered: 12 Skipped: 1



ANSWER CHOICES	RESPONSES	
Strongly agree	58.33%	7
Agree	33.33%	4
Neither agree nor disagree	8.33%	1
Disagree	0.00%	0
Strongly disagree	0.00%	0
<b>TOTAL</b>		<b>12</b>

## Q8 What are your suggestions for improving the process?

Answered: 11 Skipped: 2

#	RESPONSES	DATE
1	I have none.	8/18/2018 1:58 PM
2	The process was easy to follow but the workshop help to closed any questions folks had about the process.	8/18/2018 10:33 AM
3	None	8/10/2018 4:34 PM
4	Having this process open to all creates the idea of a level playing field to the committee. But that means that a brand new organization with a great new idea seems to be as credible as a 60 year old organization with a great track record. If they can write well. I think larger significant organizations should be in a different category. Also the panel seemed to not know anything about my organization or what we do.	8/9/2018 11:55 AM
5	Perhaps streamline the narrative questions.	8/9/2018 8:36 AM
6	The process was excellent.	8/9/2018 7:40 AM
7	I have none	8/8/2018 6:34 PM
8	N/A	8/8/2018 5:08 PM
9	It is one of the better, user-friendly applications I have experienced.	8/8/2018 3:26 PM
10	The only hiccup that we had this past year is that the reviewing body had a follow up question on one of the days following the interviews and they could not get in touch with us to ask that question. Perhaps those who are applying should be made aware of a time frame that they need to be available for further questions. We realize the short time for the interview makes it difficult to digest what is being presented and more time may be needed to develop questions that may not have been clearly answered in the interview.	8/8/2018 3:18 PM
11	I felt that the Sedona Small Grant Application was written well with little repetition and questions allowing direct answers.	8/8/2018 12:57 PM

## Q9 Besides this small grant program, what other grant or funding programs have you applied for and are there aspects of those processes you'd like to see incorporated in ours?

Answered: 11 Skipped: 2

#	RESPONSES	DATE
1	I've applied for a grant from the Arizona Diamondbacks. The process was very similar.	8/18/2018 1:58 PM
2	The Community Foundation Process is a busy one but I don't think all processes should be the same.	8/18/2018 10:33 AM
3	Rotary clubs and Corporate Community organizations	8/15/2018 12:45 PM
4	Yes at the state level there are funding categories based on the size of the organization.	8/9/2018 11:55 AM
5	Because we are fairly new nonprofit we have only applied to the City and to Safeway Foundation. The Safeway application is all online so submissions do seem easier.	8/9/2018 8:36 AM
6	I have applied to private company grant programs and foundations for other programs we offer and a front page where you list the specific aims/goals would assist the grant reviewers in the initial phases of review. It clearly states this is what we plan to accomplish in a concise listing of 2-5 goals in the time period of the grant cycle.	8/9/2018 7:40 AM
7	None	8/8/2018 6:34 PM
8	N/A	8/8/2018 5:08 PM
9	The City grants panel leadership is exemplary. Others should try to replicate it.	8/8/2018 3:26 PM
10	We have applied to, and received grants from, the Arizona Commission on the Arts, the Arizona Community Foundation of Sedona, and the Margret T. Morris Foundation. The Arizona Commission on the Arts, as well as other grantors that we are looking into for future grants, use DataArts to check on the credibility of the arts organizations who are applying for grants. The website will give you an idea of how this can help with the decision making. Here is the web address: <a href="https://www.culturaldata.org/what-we-do/">https://www.culturaldata.org/what-we-do/</a> We know, from experience, that this is not only a great tool for the grantors, but an incredible tool for the arts organizations.	8/8/2018 3:18 PM
11	Coca-Cola, Fiesta Bowl, Kellogg, N. AZ Healthcare, Wal-mart. I think the Sedona Grant process was easy to follow and fair.	8/8/2018 12:57 PM

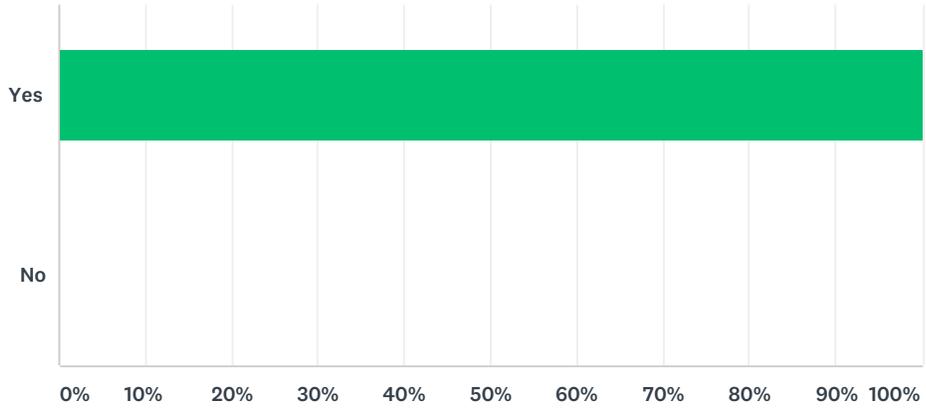
## Q10 Do you have any other comments, questions, or concerns?

Answered: 11 Skipped: 2

#	RESPONSES	DATE
1	no	8/18/2018 1:58 PM
2	Thank you for working with the people of Sedona on the grant process. It's nice when folks can ask questions and get them answered in a timely manner. I always had a resource I could email or call and that is very helpful.	8/18/2018 10:33 AM
3	The City of Sedona grant is the first grant I had applied for with not truly understanding the process, and although I was not awarded an amount for my foundation, I learned a lot about process, the information I need to make it a complete application and the opportunity I have in the future to apply with being awarded to continue my dream of helping those in need and creating a legacy for my non profit. I am appreciative to the assist I recieved during and after the process and look forward to next years opportunity. Thank you kindly	8/15/2018 12:45 PM
4	Please highlight any changes in the process from year to year or in recent years at the beginning of the instructions. Thank you for asking! And thank you for managing such an important community program!	8/9/2018 11:55 AM
5	Thank you for your continued support. We feel our event is unique and adds significant value to the community and appreciate the grant as validation of our efforts.	8/9/2018 8:36 AM
6	No	8/9/2018 7:40 AM
7	I think there should be two different threads or programs. One track would be for cultural events and the other for community support programs.	8/8/2018 5:08 PM
8	Keep up the good work.	8/8/2018 3:26 PM
9	The fact that the City of Sedona supports the arts and the not for profits with grants is a financial help, but it lends credibility to all of us who have organizations that are part of this community. The process that the City of Sedona goes through to review and then to allot the funding is something that reminds people that these organizations are responsible and important to Sedona and its people.	8/8/2018 3:18 PM
10	Am unable to respond to this survey as I'm at my summer home in north Idaho and all relevant papers are in Sedona. Will be returning to Arizona September 27. Millicent Leenhouts.	8/8/2018 1:43 PM
11	Thank you for allowing new organizations to apply. The first year is the most challenging when seeking funding.	8/8/2018 12:57 PM

# Q1 Did you review the grant application in detail?

Answered: 4 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	4
No	0.00%	0
TOTAL		4

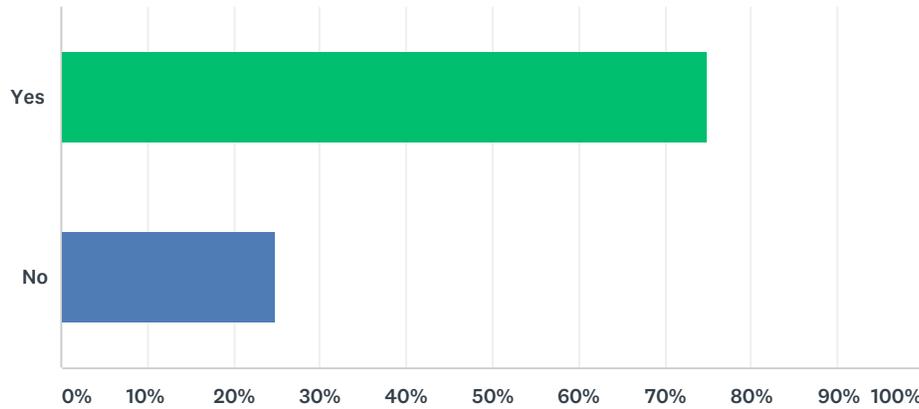
**Q2 If you answered Yes to Question 1, please share any feedback on the application and if program or application requirements influenced your decision not to apply.**

Answered: 1 Skipped: 3

#	RESPONSES	DATE
1	Application requirements made it difficult for my organization to apply for the grant within the filing time deadline.	8/8/2018 4:05 PM

### Q3 Did you attend the Applicant Workshop on March 22, 2018?

Answered: 4 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	75.00%	3
No	25.00%	1
TOTAL		4

**Q4 If you answered Yes to Question 3, please share any information you learned during the workshop that influenced your decision not to apply.**

Answered: 2 Skipped: 2

#	RESPONSES	DATE
1	Learned that our project would probably not get accepted for funding, so decided not to move forward.	8/20/2018 1:40 PM
2	Actually, the Workshop was great and it made me want to apply, but as I stated in the response to Question 2, the requirements were difficult to comply with in the time we had left to submit the application.	8/8/2018 4:05 PM

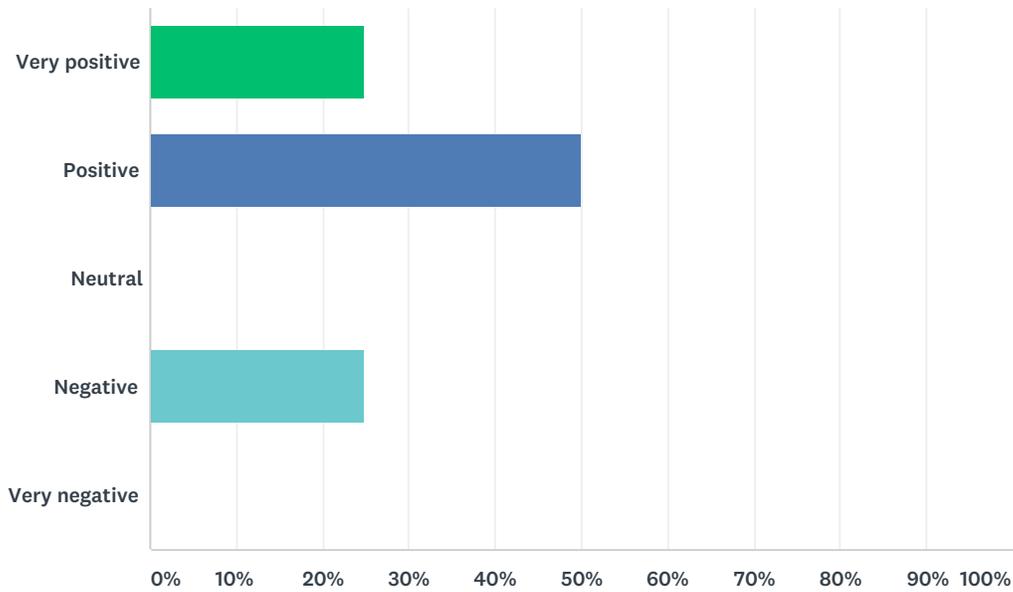
### Q5 If you answered No to Question 3, please let us know why you decided not to attend the workshop.

Answered: 1 Skipped: 3

#	RESPONSES	DATE
1	Another person attended from my organization.	8/8/2018 1:47 PM

### Q6 How would you rate your overall impression of the small grant application document and requirements?

Answered: 4 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very positive	25.00%	1
Positive	50.00%	2
Neutral	0.00%	0
Negative	25.00%	1
Very negative	0.00%	0
<b>TOTAL</b>		<b>4</b>

## Q7 What changes to the application or process would have changed your decision not to apply for a grant?

Answered: 3 Skipped: 1

#	RESPONSES	DATE
1	See number 8 below.	8/20/2018 1:40 PM
2	Requirement for metrics (qualitative and/or quantitative data to be collected, collection process and evaluation methods), financial requirements, limiting the grant to one specific project instead of overall support of the organization, which makes measurements more difficult.	8/8/2018 4:05 PM
3	We did apply for and receive a grant award, but were not able to implement the project due to organization changes.	8/8/2018 1:47 PM

## Q8 Besides this small grant program, what other grant or funding programs have you pursued and are there aspects of those processes you'd like to see incorporated in ours?

Answered: 3 Skipped: 1

#	RESPONSES	DATE
1	This grant program could be more like the Arizona Community Foundation grant program. The questions are straight forward, simple, and not too many. They do not allow unauthorized attachments. Words are limited. Downloaded documents are limited to only a couple. Only on-line applications are accepted. Interviews are not mandatory, but only if they need more information. I would think it's easier and faster for the grant approvers as well.	8/20/2018 1:40 PM
2	We have pursued grants with The NARBHA Institute. The requirements for financial information and metrics were simpler.	8/8/2018 4:05 PM
3	ACF-Sedona, ACF-Yavapai County, United Way of Yavapai County, SEDI, The NARBHA Institute.	8/8/2018 1:47 PM

Q9 If there are other reasons you chose not to apply for a small grant that were not covered in the questions above, please explain here.

Answered: 2 Skipped: 2

#	RESPONSES	DATE
1	No other reasons.	8/8/2018 4:05 PM
2	N?A	8/8/2018 1:47 PM

## Q10 Do you have any other comments, questions, or concerns?

Answered: 3 Skipped: 1

#	RESPONSES	DATE
1	Your grant program is the most comprehensive application I have seen for the amount of money distributed. I've been involved with grants from millions of dollars to hundreds. For this size grant, most grantors have gone to a very straightforward format without a lot of documents and just a few questions. My impression from other grant writers in the area who have applied for your grant is that it is almost not worth the time and trouble to apply. It's a burdensome grant process that takes many hours and then grant writers have a required interview process that I've heard is super unfriendly. Since I have never gone through the process, I cannot say for myself, but this is what others tell me. The process seems like something you would need for a million dollar grant. I would not want to be one of your grant readers and have to sift through all the documents and pages of text you require.	8/20/2018 1:40 PM
2	No. Our organization plans to submit an application next year.	8/8/2018 4:05 PM
3	I'd like to revise the grant proposal to fit my organization's new status and accept the grant.	8/8/2018 1:47 PM



**CITY COUNCIL  
AGENDA BILL**

**AB 2432  
December 11, 2018  
Regular Business**

**Agenda Item: 8c**

**Proposed Action & Subject:** Discussion/possible action regarding the approval of certain contract documents between the City of Sedona and MidState Energy LLC, and between the City of Sedona and National Bank of Arizona, for a guaranteed energy cost savings contract providing for energy efficient measures and equipment, and lease/purchase thereof, in accordance with A.R.S. § 34-105, and in an amount not to exceed \$371,998.

<b>Department</b>	City Manager's Office
<b>Time to Present</b>	20 minutes
<b>Total Time for Item</b>	90 minutes
<b>Other Council Meetings</b>	N/A
<b>Exhibits</b>	A. Guaranteed Savings Agreement B. Installment Agreement C. Investment Grade Audit D. Loan Documents E. Resolution F. PowerPoint Presentation

City Attorney Approval	Reviewed 12/4/18 RLP	<b>Expenditure Required</b>
		\$ 511,616 (over 12-year contract – offset by estimated savings of \$518,257)
City Manager's Recommendation	Approve contracts with MidState Energy for energy saving facility improvements. Consider options for financing vs. cash funding.	<b>Amount Budgeted</b>
		\$ 0
		Account No. (Description) To be paid from savings in utility costs
		Finance Approval <input checked="" type="checkbox"/>

**SUMMARY STATEMENT**

Arizona Revised Statutes (A.R.S.) § 34-105 allows cities to contract for the procurement of a guaranteed energy cost savings contract with a qualified provider if it is determined that the amount the City would spend on certain energy cost savings measures would not exceed the amount to be saved in energy costs over the expected life of the energy cost savings measures implemented. The City would then retain the cost savings achieved by a guaranteed energy cost saving contract, and these cost savings would be used to pay for the contract and project implementation. A.R.S. requires the qualified provider to perform a study

to establish the exact scope of the guaranteed energy cost savings contract, the fixed cost savings guarantee amount, and the methodology for determining actual savings.

**BACKGROUND:** Midstate Energy LLC (Midstate) provides development, design, and engineering services relating to infrastructure upgrades and energy efficient, asset sustainability solutions to the K-12 and municipal markets in Arizona. They principally utilize the performance contracting model and arrange external financing tied to the savings generated by the project.

In the spring of 2018 Midstate conducted an audit of city of Sedona facilities and equipment, including heating and cooling, lights, water usage and building automation and programming. The audit identified inefficiencies of old systems and opportunities to reduce energy costs by replacing certain systems with new and more energy efficient systems.

A guaranteed energy cost savings contract requires that, in determining whether the projected energy savings calculations have been met, the energy costs savings shall be computed by comparing the energy baseline before installation or implementation of the energy cost savings measures with the energy consumed after installation or implementation of the energy cost savings measures. Midstate's proposal identifies projected energy savings associated with each proposed energy cost savings measure.

A.R.S. also provides for cities to enter into a financing agreement with a financial institution for the purchase and installation or implementation of energy cost savings measures. To do so, the provider must guarantee that the energy cost savings meet or exceed the total cost of purchase. In this case, the cost of purchase is \$371,998. The total cost with financing fees, and annual measurement and verification costs, over the 12-year contract period is \$511,616. The total cost savings over the same 12 years is \$518,257. The first-year costs for the principal and interest payment and measurement and verification fees totals \$38,641, the same amount as the guaranteed annual savings. A full schedule of the annual costs and savings for each of the 12-years of the contract is included in the presentation document (Exhibit F). This schedule reflects some additional estimated savings for reductions to annual operational costs and a potential equipment rebate. These additional savings are not part of Midstate's guarantee.

The Guaranteed Savings Agreement (Exhibit A) includes a written guarantee that the energy cost savings will meet or exceed the costs of the energy cost savings measures over the expected life. Midstate will prepare an annual measurement and verification report to quantify and demonstrate savings. If the project fails to reduce costs as guaranteed, Midstate will reimburse the City for any shortfall of guaranteed energy cost savings on an annual basis.

Energy efficiency improvements as part of this contract are itemized and detailed in the Investment Grade Audit document (Exhibit C) and include:

- Computerized energy control systems
- Heating, ventilating, and air conditioning system replacements
- Replacing and retrofitting lighting fixtures to increase the energy efficiency of the lighting system
- Retrofit existing plumbing system with upgraded fixtures, valves and drains to reduce water consumption
- Data and sustainability management/utility tracking and analysis

Midstate is a qualified vendor under a cooperative national procurement alliance called 1GPA. The City of Sedona is a member of 1GPA which allows members to direct select a

vendor off their pre-qualified vendor lists without going through an additional competitive procurement process.

Opportunities for future performance contracts may include parks and wastewater facilities and solar and battery storage. Midstate has already begun its analyses of these facilities and equipment to determine if an additional savings could be achieved.

**Community Plan Consistent:** Yes - No - Not Applicable

One of the six major vision themes identified in the Community Plan is Environmental Stewardship (pg. 10 Sedona Community Plan) and sustainability is an inclusive goal of the Plan.

**Board/Commission Recommendation:** Applicable - Not Applicable

**Alternative(s):**

## **MOTION**

**I move to:** approve Resolution No. 2018-\_\_ , authorizing the City Manager to enter into the Installment Agreement, Guaranteed Savings Agreement, Investment Grade Audit Agreement, and Lease Purchase Agreements, with all documents subject to final review and approval by the City Attorney.

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**GUARANTEED SAVINGS AGREEMENT**

**BY AND BETWEEN**

**CITY OF SEDONA**

**AND**

**MIDSTATE ENERGY, LLC.**

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## Definitions

When used in this Agreement, the following capitalized words shall have the meaning ascribed to them below:

**“Baseline Period”** is the period-of-time that defines the Baseline Usage and is representative of the facilities, operations, consumption and usage that is used as the benchmark for determining cost avoidance.

**“Baseline Usage”** is the calculated energy usage of the facilities prior to the implementation of the ECMs.

**“Baseline Demand”** is the calculated energy demand of a piece of equipment or a site prior to the implementation of the ECMs. Baseline physical conditions, such as equipment counts, nameplate data and control strategies, will typically be determined through building occupancy, energy end-use survey and plug load surveys of the Facilities.

**“Cumulative Excess Verified Savings”** is the total amount of Excess Verified Savings based on the results of the Measurement & Verification Plan in the Guaranteed Savings Reconciliation Report carried over to the subsequent Guarantee Periods.

**“Energy and Cost Avoidance Guarantee Practices”** are those practices identified in The Schedule of Savings, intended to achieve avoided costs in energy and/or operating expenses.

**“Energy Costs”** may include the cost of electricity and fuels to operate HVAC equipment, cogeneration system, property mechanical and lighting systems and energy management systems and the cost of water and sewer usage, as applicable.

**“ECM”** the Energy Conservation Measure (ECM) is the installation of equipment or systems or modification of equipment or systems as described in Attachment B.

**“Excess Verified Savings”** Is the amount of Verified Savings minus Guaranteed Savings in the Guarantee Period.

**“Facilities”** shall mean those described in Attachment A.

**“FEMP”** shall mean the Federal Energy Management program of the U.S. Department of Energy and its Measurement and Verification Guidelines for Federal Energy Projects (DOE/GO 10096-248, February 1996, or later versions). The FEMP guidelines classify measurement and verification approaches as Option A, Option B, Option C and Option D.

**“First Guarantee Period”** is defined as the period beginning on the first (1st) day of the month following the date of execution of the Delivery and Acceptance Certificate (Attachment E-2 to the Installation Agreement) upon Substantial Completion of this project by the Customer and ending on the day prior to the first (1st) twelve-month anniversary thereof.

**“Guarantee Period”** is defined as the First Guarantee Period and each of the successive 12-month periods commencing on the anniversary of the commencement of the First Guarantee Period throughout the Term of this Agreement.

**“Guaranteed Savings”** is defined as the amount of avoided Energy Costs guaranteed to the CUSTOMER in each Guarantee Period.

**“Guaranteed Savings Reconciliation Report”** is defined as the process and report for determining the Verified Savings in each Guarantee Period and reconciling it to the Guaranteed Savings in the same Guarantee Period.

**“IPMVP”** shall mean the International Performance Measurement and Verification Protocol and its Measurement and Verification guidelines for energy savings performance contract projects. The IPMVP guidelines classify measurement and verification approaches as Option A, Option B, Option C and Option D.

**“Measurement and Verification Plan”** (M&V Plan) is defined as the plan providing details on how the Guaranteed Savings will be verified.

**“Term”** shall be 12 years from acceptance.

**“Verified Savings”** is defined as the summation of avoided Energy Costs as determined by the Measurement and Verification Plan for the Facilities in each Guarantee Period as a result of the ECMs provided by MIDSTATE ENERGY, LLC. as well as Excess Verified Savings, if any carried forward from previous years.

**GUARANTEED SAVINGS AGREEMENT**

**BY AND BETWEEN**

**CITY OF SEDONA  
AND**

**MIDSTATE ENERGY, LLC.**

This Guaranteed Savings Agreement for Energy Saving Improvement Project (hereinafter the “Agreement”) is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2018 by and between MIDSTATE ENERGY, LLC. an Arizona corporation located at 23325 North 23rd Avenue, Suite 120, Phoenix, Arizona 85027 (“MIDSTATE ENERGY, LLC.”) and CITY OF SEDONA located at 102 Roadrunner Drive, Sedona, Arizona 86336, (the “Customer”). MIDSTATE ENERGY, LLC. and the customer may hereafter be referred to collectively as the “Parties”.

**WITNESSETH:**

**WHEREAS**, Customer owns, operates, manages and control certain hereinafter designated buildings (the “Facilities”);

**WHEREAS**, the customer and MIDSTATE ENERGY, LLC. agree that each Party will act in strict compliance with A.R.S. §34-105 which is incorporated herein by reference, and any failure to so act will be a substantial breach of this Agreement; and

**WHEREAS**, Customer desires to reduce its energy costs with respect to energy utilization at the Facilities; and

**WHEREAS**, MIDSTATE ENERGY, LLC. provides services including planning, design, installation, construction, operation, measurement and verification of energy efficient measures and equipment and related services as are set forth herein; and

**WHEREAS**, the Parties entered into an agreement for MIDSTATE ENERGY, LLC. to perform a Final Proposal whereby MIDSTATE ENERGY, LLC. was able to determine the feasibility of performing certain energy conservation measures to the Site;

**WHEREAS**, a licensed, registered professional engineer, with credentials from the Association of Energy Engineers performed an independent, third-party validation of the cost savings calculations as set forth in the proposal as required by A.R.S. §34-105;

**WHEREAS**, the Customer and MIDSTATE ENERGY, LLC. desire to enter into a guaranteed energy cost savings contract as authorized under and in strict compliance with A.R.S. §34-105.

The above noted WHEREAS clauses are fully incorporated into this Agreement and as such are fully enforceable by the Parties.

**NOW, THEREFORE**, in consideration of the mutual obligations hereinafter set forth, the parties hereto agree as follows:

## **Section 1     Scope of Services**

1.1     MIDSTATE ENERGY, LLC. has implemented an energy conservation program for the Customer as more fully described in the Scope of Work in Schedule B hereto (the “Project”), which will result in certain energy savings as more fully described below and in the Schedules attached hereto. MIDSTATE ENERGY, LLC. shall be responsible for the design, engineering, construction, permits, fees, approvals, project management, installation, start-up, training, close-out, check-out, warranty, insurance, measurement, verification and clean up relative to the Project. Construction, installation and implementation of the Project will be governed by a separate construction Contract of even date between MIDSTATE ENERGY, LLC. and Customer (the “Installation Agreement”). The buildings are structures owned, maintained and/or operated by Customer, which are the subject of this Agreement and set forth in Schedule A.

## **Section 2     Term and Termination**

2.1     Guarantee Term. The Term of this Guarantee shall commence on the first (1st) day of the month following the date of execution of the Final Delivery and Acceptance Certificate (Attachment E-2 to the Installation Agreement) by the Customer and shall terminate at the end of 12 years unless terminated earlier as provided for herein.

2.2     Guarantee Termination. Should this Agreement be terminated (including, as applicable, the Maintenance or Measurement & Verification Services) in whole or in part for any reason prior to the end of the Term, the Guaranteed Savings for the Guarantee Period in which such termination becomes effective shall be prorated as of the effective date of such termination, with a reasonable adjustment for seasonal fluctuations, if any, in Energy and Operational Costs and the Guaranteed Savings for all subsequent Guarantee Periods shall be null and void.

### **Section 3 Savings Guarantee**

3.1 Guaranteed Savings: the following table 3.1 lists the amount of Guaranteed Savings resulting from the ECMs to be installed by MIDSTATE ENERGY, LLC.

MIDSTATE ENERGY, LLC. hereby guarantees (the “Performance Guarantee”) to the Customer that the Guaranteed Savings (amount of avoided energy costs) arising from the Project will meet or exceed the cost of the installation of energy cost saving measures over the expected life, according to the manufacturer’s equipment standards of the energy cost saving measures implemented, the term of the Financial Agreement associated with the Project or 12 years, whichever is shortest. MIDSTATE ENERGY, LLC. further makes the guarantees required by A.R.S. §34-105 and as further described in Schedule C attached hereto (the Annual Performance Guarantee) within a period of 12 years from the Guarantee Effective Date, as defined below (the “Guarantee Term”), and all in strict compliance with A.R.S. §34-105. MIDSTATE ENERGY, LLC. guarantees that the Guaranteed Savings will meet or exceed the Contract Sum as set forth in Attachment F of the Installation Agreement. The Customer understands, acknowledges and agrees that (i) MIDSTATE ENERGY, LLC. cannot and does not guarantee utility rates, (ii) the Guaranteed Savings hereunder will be measured as required by A.R.S. §34-105 references to savings in dollars are based upon the blended utility rates set forth per table 3.2.5, and for purposes of this Agreement the useful life of the equipment is agreed to be 12 years which constitutes the Guarantee Term. The Guarantee Term is the term in which MIDSTATE ENERGY, LLC. guarantees that the cumulative energy savings (or energy costs avoided) will exceed the entire amount the Customer will spend on the energy savings measures in this Agreement, all pursuant to and in compliance with, A.R.S. §34-105.

**Table 3.1: Guaranteed Savings**

#	ENERGY CONSERVATION MEASURE (ECM)	CALCULATION METHOD	WATER SAVINGS (kgal)	ENERGY SAVINGS (kWh)	ACTUAL ENERGY SAVINGS (\$)
1	Lighting Savings	Engineered Efficiency Analysis	0	101,027	\$11,113
2	Water Savings	Engineered Efficiency Analysis	888	1,777	\$5,597
3	HVAC Savings	Engineered Efficiency Analysis	0	141,818	\$15,600
4	Building Automation Savings	Engineered Efficiency Analysis	0	20,282	\$2,231
5	Data Management Savings	Engineered Efficiency Analysis	0	37,273	\$4,100
<b>TOTAL PROGRAM SAVINGS</b>			<b>888</b>	<b>302,177</b>	<b>\$38,641</b>

- 3.1.1 Additional Savings. Additional energy and/or operational cost avoidance that can be demonstrated as a result of MIDSTATE ENERGY, LLC. efforts that result in no additional costs to Customer beyond the costs identified in this Agreement will be included in the Guaranteed Savings Reconciliation Report for the applicable Guarantee Period(s).
- 3.1.2 Savings Prior to Final retrofit Acceptance. All energy and operational cost avoidance realized by Customer and as calculated through the Measurement & Verification Plan that result from activities undertaken by MIDSTATE ENERGY, LLC. prior to Final Acceptance may be applied to the Verified Savings for the First Guarantee Period.
- 3.1.3 Accumulation of Savings. The Guaranteed Savings in each Guarantee Period are considered satisfied if the Verified Savings for such Guarantee Period equals or exceeds the Guaranteed Savings for such Guarantee Period.

- 3.1.4 Savings Shortfalls. In the event that the Verified Savings in any Guarantee Period is less than the Guaranteed Savings required for that Guarantee Period, after giving credit for any Excess Verified Savings carried forward from previous Guarantee Periods, including any utility rebates achieved by the project, MIDSTATE ENERGY, LLC. shall, upon receipt of written demand from Customer, compensate Customer the amount of any such shortfall, limited by the value of the guarantee, within thirty (30) calendar days. Resulting compensation shall be MIDSTATE ENERGY, LLC.'s sole liability for any shortfall in the Guaranteed Savings.
- 3.2 Savings Reconciliation Documentation. MIDSTATE ENERGY, LLC. will provide customer with a Guaranteed Savings Reconciliation Report after each Guarantee Period within 120 days. Customer will assist MIDSTATE ENERGY, LLC. in generating the Savings Reconciliation Report by providing MIDSTATE ENERGY, LLC. receipt thereof, together with access to relevant records relating to such Energy Costs. Customer will also assist MIDSTATE ENERGY, LLC. by permitting access to any energy billing information, maintenance records, drawings, or other data deemed necessary by MIDSTATE ENERGY, LLC. to generate the said report. Data and calculations utilized by MIDSTATE ENERGY, LLC. in the preparation of its Guaranteed Savings Reconciliation Report will be made available to Customer, along with such explanations and clarifications as Customer may reasonably request. Such report shall be developed as required by A.R.S. §34-105 with the energy costs after installation or implementation of the energy cost saving measures, as required by A.R.S. §34-105. MIDSTATE ENERGY, LLC. will explain discrepancies between current energy usage and Guaranteed Savings (if any) and any proposed adjustments as may be allowed by A.R.S. §34-105.

An annual energy savings guarantee reconciliation report shall be prepared by Midstate Energy LLC., which will calculate annual energy savings according to the Energy Savings Methodologies defined in Table 4.2 and as required by A.R.S. §34-105.

- 3.2.1 Acceptance of Guaranteed Savings Reconciliation Report. At the end of each Guarantee Period, Customer will have forty-five (45) days to review the Guaranteed Savings Reconciliation Report and provide written notice to MIDSTATE ENERGY, LLC. of non-acceptance of the Guaranteed Savings Reconciliation Report for the Guarantee Year. Failure to provide written notice within forty-five (45) days of the receipt of the Guaranteed Savings Reconciliation Report shall constitute, and be deemed, acceptance of the Report and its findings by the Customer.
- 3.2.2 Guaranteed Savings Reconciliation. Verified Savings will be determined in accordance with the methodology(s), operating parameters, formulas and constants as described below and/or defined in the Measurement & Verification Plan (Table 4.2) and/or additional methodologies defined by MIDSTATE ENERGY, LLC. that may be negotiated with Customer at any time. Actual savings reduction in utility bills may vary from the Verified Savings for reasons outside of MIDSTATE ENERGY, LLC. control including but not limited to: changes in energy and other utility rates and tariffs, changes in Customer operating schedules and usage patterns, changes in Customer loads due to addition or reductions in energy and water consuming devices, changes in weather, impacts due to the operations of ECMs, impacts due to the maintenance of ECMs maintained by Customer and additions to and/or reduction in property space usage. For the purposes of calculating any shortfalls or excesses of Verified Savings versus Guaranteed Savings, the Measurement & Verification Plan will be utilized.
- 3.2.3 Activities and Events Adversely Impacting Savings. Customer must promptly notify MIDSTATE ENERGY, LLC. of any activities known to Customer, which adversely impact MIDSTATE ENERGY, LLC.'s ability to realize the Guaranteed Savings and MIDSTATE ENERGY, LLC. shall be entitled to reduce the Guaranteed Savings by the amount of any such adverse impact to the extent that such adverse impact is beyond MIDSTATE ENERGY, LLC.'s reasonable control.

3.2.4 **Guarantee Adjustment.** MIDSTATE ENERGY, LLC.’s Guaranteed Savings obligations under this Agreement are contingent upon: (1) Customer following the operations and maintenance requirements for the ECMs in accordance with the Agreement; (2) no alterations or additions being made by the Customer without prior written agreement of the Parties; (3) Customer sending all current utility bills to MIDSTATE ENERGY, LLC. within two (2) weeks after receipt; and (4) MIDSTATE ENERGY, LLC.’s ability to render services not being impaired by circumstances beyond its control. To the extent that the Customer defaults or fails to perform fully any of its obligations under this Agreement, MIDSTATE ENERGY, LLC. may, in its sole discretion, adjust the Guaranteed Savings obligation; provided however, that no adjustment hereunder shall be effective unless MIDSTATE ENERGY, LLC. has first provided the Customer with written notice of Customer’s default(s) or failure(s) to perform and Customer has failed to cure its default(s) or failure(s) within thirty (30) days after receipt of such notice.

3.2.5 **Energy Rates.** The base utility rates used for calculating annual cost savings are presented in Table 3.2 below. These rates will be escalated annually utilizing the rates indicated in Table 3.3 and applied to the ECM savings at each property to determine annual costs savings for each Guarantee Period. The escalated blended utility rates will be compared to the blended utility rates calculated during each year of the Guarantee Period and higher of the floor values or the blended utility rate for the reporting period will be used to determine savings.

**Table 3.2: Annual Escalations**

<b>PROPERTY NAME</b>	<b>ELECTRIC (\$/kWh)</b>	<b>NATURAL GAS (\$/Therm)</b>	<b>WATER &amp; SEWER (\$/kgal)</b>
All Sites	2.0%	2.0%	2.0%

3.3 Annual Utility Rate Escalation Rate. The following table shows annual escalation of the blended utility rates to be used for calculating Guaranteed Savings. The blended utility rates will increase by the following percentages each year over beginning during the implementation year.

**Table 3.3 Annual Escalations**

YEAR	ESCALATION RATE
Implementation	2.0%
1	2.0%
2	2.0%
3	2.0%
4	2.0%
5	2.0%
6	2.0%
7	2.0%
8	2.0%
9	2.0%
10	2.0%
11	2.0%
12	2.0%

3.4 Guaranteed Savings. The following table lists the amount of Guaranteed Savings resulting from the ECMs to be installed by MIDSTATE ENERGY, LLC.

**Table 3.4 Guaranteed Savings by Year**

<b>YEAR</b>	<b>GUARANTEED SAVINGS (\$)</b>
1	\$38,641
2	\$39,414
3	\$40,202
4	\$41,006
5	\$41,826
6	\$42,663
7	\$43,516
8	\$44,386
9	\$45,274
10	\$46,180
11	\$47,103
12	\$48,045
<b>TOTAL SAVINGS</b>	<b>\$518,257</b>

## Section 4 Measurement & Verification Plan

- 4.1 Measurement & Verification. MIDSTATE ENERGY, LLC. and the Customer agree that the Verified Savings will be determined using the following Measurement & Verification Plan – Table 4.2. Through this plan, the Guaranteed Savings generated by the ECMs installed in the Facilities will be verified and incorporated herein by reference.

Measurement & Verification Plan. MIDSTATE ENERGY, LLC. and the Customer agree that the Verified Savings by ECM will be determined using the following Measurement & Verification plans further described in this section. The objective of the plan is to describe how the savings generated by the ECMs installed in the Facilities will be quantified and validated. The Measurement & Verification methodologies proposed for these ECMs are based on the International Performance Measurement and Verification Protocol (IPMVP Vol. 1, January 2012).

During the term of the Agreement, MIDSTATE ENERGY, LLC. may make adjustments to energy savings due to changes in building occupancy, weather data and utility rate schedules, etc. The unit costs of energy will be applied to the energy savings calculated by this Measurement & Verification plan. Blended utility rates will be used as a basis for determining the unit cost of energy presented herein Section 3.2.5. A Guaranteed Savings Reconciliation Report will be submitted to the Customer after each Guarantee Period.

- 4.2 Performance Verification services are provided utilizing the following IPMVP methodologies:

### IPMVP Option A: Retrofit Isolation: Key Parameter Measurement

Savings are determined by field measuring key operating parameter(s). Parameters not selected for field measurement are estimated. Estimates can be based on historical data, manufacturer's specifications or engineering judgments which define the energy use of the ECMs affected system(s). Documentation or justification of the estimated parameter is contained within the Investment Grade Audit.

Engineering Calculation: Contractually agreed upon savings.

The savings calculated, prepared using standard published engineering criteria and are contractually agreed upon and are considered satisfied at the contract execution.

Onsite inspections will be performed to verify that equipment installed matches specifications required to achieve expected energy savings.

**Table 4.2 Measurement & Verification Description**

ECM #	ENERGY CONSERVATION MEASURE (ECM) & DESCRIPTION	M & V OPTION	UTILITY TYPE	PRE-IMPLEMENTATION M & V (Baseline)	POST IMPLEMENTATION M & V	M & V KEY PARAMETER(S)	CONTRACTUALLY AGREED UPON VARIABLES
<b>Lighting Savings</b>							
1	Replace existing lamps and ballasts with fixtures both inside and outside of buildings.	A	Electric (kWh)	Room-by-room audit establishing fixture types, operating hours, and watts. Sample fixtures will be identified and power (kW) will be measured.	Sample fixtures previously identified in the Pre-Implementation survey will be measured for power (kW) after installation.	Instantaneous Power (kW)	Hours of Operation (3,120 hours)
<b>Water Savings</b>							
2	Retrofit and/or existing plumbing fixtures or parts to reduce water consumption.	A	Water (kgal)	Room-by-room audit establishing actual water consumption by fixture.	Sample fixtures previously identified in the Pre-Implementation survey will be measured for water after installation.	Gallons Per Usage	Average use by typical occupant based on national averages
<b>HVAC Savings</b>							
3	Replace HVAC equipment with new, correctly sized equipment.	Engineering calculations based SEER.	Electric (kWh)	Efficiency ratings provided by manufacturer following accepted testing methods.	Assure that all new systems are operating correctly and per accepted parameters.	Temperature Setpoints/ Occupancy Schedule	Manufacturers Efficiency Rating

ECM #	ENERGY CONSERVATION MEASURE (ECM) & DESCRIPTION	M & V OPTION	UTILITY TYPE	PRE-IMPLEMENTATION M & V (Baseline)	POST IMPLEMENTATION M & V	M & V KEY PARAMETER(S)	CONTRACTUALLY AGREED UPON VARIABLES
<b>Building Automation Savings</b>							
4	Replace existing programmable stats with web based Stats.	Engineering calculations based on occupancy schedule and temperature setpoints.	Electric (kWh)	Baseline HVAC energy consumption disaggregated from analysis of utility information. Existing setpoints documented during survey and verified with facilities.	Performs onsite inspections once annually and periodic review of Energy Management System (EMS) exception reports. Equipment will be verified to ensure hardware is not materially different from the scope of work.	Temperature Setpoints/ Occupancy Schedule	Temperature Setpoints/ Occupancy Schedule/ Hours of Operation/ Building Loads
<b>Data Management Savings</b>							
5	Utilize an on-going Environmental Monitoring System (EMS) to continually scan and adjust space utilization for energy reduction.	Engineering calculations based on usage.	Electric (kWh)	Schedule Analysis	Assure that all new systems are operating correctly and per accepted parameters.	Temperature Setpoints/ Occupancy Schedule	City Utilization

#### 4.2.1 ECM -1 Lighting Upgrades

##### Overview of M&V Plan:

The M&V plan for this ECM is based on IPMVP Option A.

##### Savings Verification Methodology

Under IPMVP Option A, the key parameter will be the instantaneous power in kilowatts (kW) used by each lighting fixture lamp and ballast configuration (LBC) at pre- and post-retrofit conditions. The measurements will be performed on a statistically significant quantity of pre- and post-retrofit fixtures. The stipulated key parameter will be hours of operation.

MIDSTATE ENERGY, LLC. utilizes a standard baseline of 3,120 annual operating hours when calculating pre- and post-construction lighting energy savings calculations for city buildings. The operating standard is based off of conversations with City personnel.

The number of fixtures to be selected for measurement is based on the use of statistical sampling methods (described below) to ensure reasonable sample populations and confidence level (CL) in the results of the samples. MIDSTATE ENERGY, LLC. will identify the fixtures to measure pre-and post-implementation. MIDSTATE ENERGY, LLC. will use a confidence level (CL) of 80% with a Precision to be 20%. Based on the total LBC quantity, a total of 96 samples will be the expected sample size.

##### Pre-Installation Measurement & Verification Activities

A room-by-room audit was performed documenting each fixture LBC and their locations in order to establish power draw (kW) per LBC. Prior to installation of new fixtures, measurements will be taken on selected LBC samples chosen. Established Run Time Hours are assigned to the appropriate LBCs. Pre-retrofit baseline is calculated and then compared to utility information to confirm viability and establish disaggregated portion of total energy usage. The pre-retrofit baseline calculation is as follows:

Pre-Retrofit baseline: Existing Fixture Consumption x Run Time Hours  
= Pre-Retrofit Baseline.

## Post-Installation Measurement & Verification Activities

Post installation measurements will be taken on the same selected LBC measured during the Pre- installation period. Expected savings will be the difference between the Pre-Retrofit baseline and the Post-retrofit (Adjusted) baseline.

Post Retrofit calculation to determine post consumption baseline: New Fixture Consumption x Run Time Hours = Post (Adjusted) Retrofit Baseline.

The equipment installed as a part of this ECM will be inspected annually to verify that it is in place and operating as specified and that manufacturer's recommended maintenance is being performed. In addition, MIDSTATE ENERGY, LLC. will perform interviews with property staff to determine whether the equipment remains in place and is operating as intended to provide verification of proper operation.

Any changes to building schedules and occupancy hours are the responsibility of the Customer and may result in baseline adjustments for the calculation of verified savings. MIDSTATE ENERGY, LLC. will note these changes when found and inform the Customer.

Energy consumption savings were calculated through spreadsheet calculations. The savings for this ECM are set forth in Table 4.4.

**Table 4.4: Savings Summary**

<b>Lighting Upgrades</b>	<b>Savings</b>
Electricity (kWh)	101,027

### 4.2.2 ECM 2 - Water Upgrades

#### Overview of M&V Plan

MIDSTATE ENERGY, LLC. will utilize IPMVP Option A for this ECM. MIDSTATE ENERGY, LLC. will install water saving devices to reduce water usage in the facilities.

#### Savings Verification Methodology

MIDSTATE ENERGY, LLC. created a model to determine the property

water load profiles. This model was used in conjunction with water and sewer and natural gas usage history, estimated equipment usage times and interview with property personnel to calibrate the baseline models.

The water use spreadsheet model used data from the following sources:

- Water, Sewer, and Natural Gas Usage Data from billing records
- Flow rates, gallons per flush, gallons per minute as shown in IGA
- Discussions with facility personnel (occupant usage profiles, number of occupants, schedule, average daily use)

If any of these parameters could not be determined from these sources, MIDSTATE ENERGY, LLC. determined the most likely parameter based on standard engineering practices and experience. Key parameters that affect baseline water and energy use include existing fixture flow rates, building population and Domestic Hot Water (DHW) heating system efficiency. Building occupant data was provided by staff at CITY OF SEDONA.

#### Baseline M&V Activities

Baseline audits and site observations were used for establishing the baseline sanitary water use. Characteristics of baseline sinks, lavatories and water closets were taken to confirm the assumptions that went into the spreadsheet models. Baseline fixture flow rates are based on fixture flow measurements that were taken on a representative sample of the baseline fixture types. Measurements were performed at the fixture or plumbing chase level. MIDSTATE ENERGY, LLC. used these measurements to determine the averaged fixture flow rates for the existing toilets, lavatories and water closets.

#### Post-Installation M&V Activities

MIDSTATE ENERGY, LLC. will perform the following verification activity:

- Post-Installation fixture flow rates are based on fixture flow measurements for a representative sample of the Post-Installation fixture types. These fixture flow rates will be set for the term of the contract as is illustrated in IGA
- Field verification that the new plumbing fixtures and controls are installed and operating in accordance with the specifications by

manufacturer.

If the as-built equipment installed differs materially from the scope of work, then the models will be revised to reflect the equipment that was actually implemented. If the modification is directed by the CUSTOMER it may also require an adjustment to the guaranteed savings.

Water consumption savings were calculated through spreadsheet calculations. The savings for this ECM are set forth in Table 4.5.

**Table 4.5: Savings Summary**

<b>Water Upgrades</b>	<b>Savings</b>
Water/Sewer (Kgals)	888
Water/Sewer (kWh)	1,777
<b>Total Water Savings</b>	<b>888</b>

#### 4.2.3 ECM 3 - HVAC Upgrades

##### Overview of M&V Plan

MIDSTATE ENERGY, LLC. Retro-commission the existing HVAC units. Bringing the existing up to optimal running condition.

##### Savings Verification Methodology

A spreadsheet utility was created to model the building cooling and heating load profiles as well as plug load and miscellaneous utility usage. The building loads were derived from electric history and were used to estimate equipment usage times in order to calibrate the baseline models.

- The spreadsheet models used data from the following sources:
- Building Survey Data (building areas, construction and HVAC equipment capacities and other data)
- Weather data
- Utility Usage Data from billing records
- Discussions with facility personnel (occupancy hours, set points, number of occupants, operating hours of equipment, general equipment conditions)

- Engineered calculations were used in determining the savings based on nationally recognized usage per occupant and compared against utility bills provided. These calculations were then used in a nationally used format of desegregation process to determine savings for each site.

If any of these parameters could not be determined from these sources, MIDSTATE ENERGY, LLC. determined the most likely parameter based on standard engineering practices and experience. Key parameters that affect baseline energy use include system efficiency, weather, operating hours, building populations, and building heating & cooling loads. Building operating and occupant data were provided by the Customer staff.

#### Baseline Measurement & Verification Activities

Baseline analysis and site observations were used for establishing the baseline energy use. Site observations consist of characteristics of baseline HVAC equipment including equipment type, size, and runtime hours, as well as all plug load and miscellaneous loads.

#### Post-Installation Measurement & Verification Activities

The equipment and associated controls systems installed as a part of this ECM will be inspected annually to verify that it is in place and operating as intended and that manufacturer's recommended maintenance is being performed. In addition, MIDSTATE ENERGY, LLC. will perform periodic measurement of trend data from the control system to verify that the equipment continues to run without change or manual overriding. Monitoring of these systems will require MIDSTATE ENERGY, LLC. to access these systems both on-site and remotely. If the data is not made available, a physical inspection of the equipment and interviews with facility staff to determine whether the equipment remains in place and is operating as intended will be considered sufficient to provide verification of proper operation.

Energy savings shown in the annual report will be based on the results documented in the post-installation report. Any modification of the equipment, or changes from its intended function are the responsibility of the Customer.

#### **Table 4.4 Savings Summary**

<b>HVAC Upgrades</b>	<b>Savings</b>
Electricity (kWh)	141,818

## Section 5 Program Cost

Program cost shall include the following cost and shall constitute Customer's entire obligation in the Agreement.

Measurement & Verification Fee: Customer shall pay MIDSTATE ENERGY, LLC. for annual measurement and verification services payable at the beginning of each performance period. Customer agrees to pay the annual Measurement & Verification fee as provided for below with respect to such agreed upon services.

**Table 5.1 – Annual M&V Fee**

YEAR	Annual M & V Fee
1	\$3,500
2	\$3,570
3	\$3,641
4	\$3,714
5	\$3,789
6	\$3,864
7	\$3,942
8	\$4,020
9	\$4,101
10	\$4,183
11	\$4,266
12	\$4,352

## Section 6 Mutual Representation and Warranties

The parties hereto warrant and represent to each other as follows:

- 6.1 It is a duly organized and valid existing entity with full power and authority to consummate the transactions contemplated by this Agreement.

- 6.2 It has received the requisite authorization from its governing body empowering it to execute, deliver and perform this Agreement, the signatories hereto are duly authorized and upon execution of this Agreement it constitutes a legal, valid and binding obligation.
- 6.3 The execution of these documents will not violate any existing law, rule or regulation of which either party is aware nor will the execution of this Agreement violate any existing contract between either party and any third party, nor has either party received any notice from any individual, corporation or other entity, including, but not limited to, the State of Arizona or any of its departments that this Agreement potentially violates any rule, regulation, ordinance, decree in a manner that would adversely affect the ability of either party hereunder to perform its obligations hereunder.

## **Section 7 Events of Default**

- 7.1 Events of Default by Customer. Each of the following events or conditions shall constitute an “Event of Default” by Customer:
- 7.1.1 Any failure by Customer to pay MIDSTATE ENERGY, LLC. its undisputed compensation for a period of more than thirty (30) days after the date of the invoice thereof;
  - 7.1.2 Any representation furnished by Customer in this Agreement which was false or misleading in any material respect when made; or
  - 7.1.3 Any other material failure by Customer to perform or comply with the terms and conditions of this Agreement or the Installation Agreement, including breach of any covenant contained herein, provided that such failure continues for thirty (30) days after written notice to Customer demanding that such failure to perform be cured or, if cure cannot be affected in such thirty (30) days, without commencement of a cure and subsequent completion thereof as quickly as is reasonably possible.
- 7.2 Events of Default by MIDSTATE ENERGY, LLC. Each of the following events or conditions shall constitute an “Event of Default” by MIDSTATE ENERGY, LLC.:
- 7.2.1 Any representation or warranty furnished by MIDSTATE ENERGY, LLC. in this Agreement which was false or misleading in material respect when made; and

7.2.2 Any other material failure of MIDSTATE ENERGY, LLC. to perform or comply with the terms and conditions of this Agreement, including breach of any covenant contained herein, provided that such failure continues for thirty (30) days, after written notice to MIDSTATE ENERGY, LLC. demanding that such failure to perform be cured or, if cure cannot be effected in such thirty (30) days, without commencement of a cure and subsequent completion thereof as quickly as is reasonably possible.

## **Section 8 Additional Representations & Warranties of Customer & MIDSTATE ENERGY, LLC.**

The Parties hereby warrant and represent the following:

- 8.1 MIDSTATE ENERGY, LLC. will follow the Davis-Bacon Act concerning prevailing wages with respect to this Project, where applicable.
- 8.2 Customer has provided MIDSTATE ENERGY, LLC. with all records and information heretofore requested by MIDSTATE ENERGY, LLC. and all the information in such records and any records subsequently to be provided by Customer to MIDSTATE ENERGY, LLC. will be in all respects, to the best of the Customer's knowledge, true and accurate in all material aspects except as may be conditioned by Customer in writing.
- 8.3 Customer presently intends to continue to use the Facilities in a manner similar to the present use, except as to those changes which Customer has already disclosed to MIDSTATE ENERGY, LLC. and
- 8.4 To the extent reasonably available, the Customer will provide MIDSTATE ENERGY, LLC. with information with respect to any existing warranties for any equipment which exists at the Properties within fifteen (15) days of the execution of this Agreement.

## **Section 9 Severability**

Any provision of this Agreement which is determined by a court to be prohibited or unenforceable, shall be ineffective as to the extent of such prohibition or unenforceability without invalidating the remaining provisions of this Agreement provided such severance will not unjustly enrich either party or frustrate the purposes of this Agreement.

## **Section 10 Notices and Changes of Address**

All notices and other communication under this Agreement (other than regularly scheduled payments) shall be deemed properly given upon receipt if delivered in person or sent by electronic mail with regular mail follow-up or sent by overnight delivery service or sent by registered mail, return receipt requested and postage prepaid, addressed as follows:

To: CITY OF SEDONA  
102 Roadrunner Drive  
Sedona, Arizona 86336  
Attention: Justin Clifton  
Email: JClifton@sedonaaz.gov

To: MIDSTATE ENERGY, LLC.  
23325 North 23rd Avenue, Suite 120  
Phoenix, Arizona 85027  
Attention: John Hobbes, CEO  
Email: jhobbes@midstate-energy.com

Either Party may change such address from time to time by written notice to the other Party.

## **Section 11 Governing Law**

This Agreement shall be governed under the laws of the State of Arizona without regard to the principles of conflicts of laws. The parties consent and submit to the exclusive jurisdiction and venue of the State and Federal courts located in Yavapai County of the State of Arizona.

## **Section 12 Counterparts**

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same document.

## **Section 13 Waiver**

No failure on the part of either MIDSTATE ENERGY, LLC. or Customer to exercise and no delay in exercising any right under this Agreement shall operate as a waiver thereof; nor shall any single or partial exercise of any right under this Agreement preclude any other or further exercise thereof or the exercise of any other right.

## **Section 14 Amendment**

No amendment or waiver of any provision of this Agreement or any consent to any departure by either party therefrom, shall in any event be effective unless the same shall be in writing and signed by the parties to this Agreement and then such amendment or waiver shall be effective only to this specific instance and for the specific purpose for which given.

## **Section 15 Complete Agreement**

This Agreement, including Schedules A through E hereof, constitutes the entire agreement between Customer and MIDSTATE ENERGY, LLC., and it is agreed that such Schedules are integrated into and form a part of the entire Agreement.

- Guaranteed Savings Agreement for Energy Savings Improvement Project
- Installation Agreement / Construction Agreement
- Investment Grade Audit

## **Section 16 Changes to the Agreement**

The parties agree that changes to the Agreement can be made upon mutual written agreement to accommodate increases or changes in the scope of work in the facility or for the purpose of adding additional facilities. Such changes may involve the scope of work and may affect the energy savings, compensation to MIDSTATE ENERGY, LLC. or measurement and verification fee.

## **Section 17 Contract Executory**

This Agreement shall be deemed executory only to the extent of the monies appropriated and available for the purpose of this Agreement, and no liability on account therefore shall be incurred beyond the amount of such monies relative to the Performance Guarantee by MIDSTATE ENERGY, LLC. or amounts payable by the Customer. It is understood that neither this Agreement nor any representation by any public employee or officer creates any legal or moral obligation to request, appropriate or make available monies for the purpose of the contract.

## **Section 18 Conflict of Interest**

This Agreement may be cancelled by the Customer for conflict of interest pursuant to Arizona Revised Statutes Section 38-511, the pertinent provisions of which are incorporated herein by reference.

## **Section 19 Immigration**

As mandated by Arizona Revised Statutes 41-4401, MIDSTATE ENERGY, LLC.:

- 19.1 Warrants MIDSTATE ENERGY, LLC. compliance with all Federal immigration laws and regulations that relate to MIDSTATE ENERGY, LLC.'s employees and their compliance with Arizona Revised Statutes 23-214(A);
- 19.2 Acknowledges that a breach of the warranty in subsection a of this section shall be deemed a material breach of this Agreement that is subject to penalties up to and including termination of this Agreement; and
- 19.3 Agrees that the Customer retains the legal right to inspect the papers of any MIDSTATE ENERGY, LLC. or subcontractor employee who works pursuant to this Agreement to ensure compliance with the warranty

## **Section 20 Fingerprinting Requirement**

- 20.1 MIDSTATE ENERGY, LLC. and Subcontractor Employee Security Inquiries. Parties acknowledge that security measures required in this Section are necessary in order to preserve and protect the public health, safety and welfare. In addition to the specific measures set forth below, MIDSTATE ENERGY, LLC. shall take such other measures as it deems reasonable and necessary to further preserve and protect the public health, safety and welfare. MIDSTATE ENERGY, LLC. shall at a minimum ensure that all relevant personnel shall obtain a valid fingerprint clearance card.

- 20.2 Security Inquiries. MIDSTATE ENERGY, LLC. acknowledges that all of the employees that it provides pursuant to this Agreement shall be subject to background and security checks and screening ("Security Inquiries"). MIDSTATE ENERGY, LLC. shall exercise due diligence in conducting such checks and acting to prevent individuals who may compromise the health, safety and welfare of City staff and/or community from being on the site or Customer property. MIDSTATE ENERGY, LLC. shall perform all such security inquiries and shall make the results available to Customer for all employees considered for performing work (including supervision and oversight) under this Agreement. Customer may make further security inquiries. Whether or not further security inquiries are made by Customer, Customer may, at its sole, absolute and unfettered discretion, accept or reject any or all of the employees proposed by MIDSTATE ENERGY, LLC. for performing work under this Agreement. Employees rejected by Customer for performing services under this Agreement may still be engaged by MIDSTATE ENERGY, LLC. for other work not involving the Customer. An employee rejected for work under this Agreement shall not be proposed to perform work under other Customer contracts or engagements without Customer's prior approval.
- 20.3 Criteria for Evaluating Security Inquiries. Once formally adopted by Customer, criteria for excluding an individual from performing work under this Agreement shall be communicated by Customer to MIDSTATE ENERGY, LLC. and used by MIDSTATE ENERGY, LLC. as a factor in making its decision. Prior to such adoption, MIDSTATE ENERGY, LLC. shall use its best judgment in making its decision using, among other criteria, applicable law, administrative regulations of Federal, State and local agencies concerned with work performed under this Agreement, specific local concerns that deal with the specific work and work location(s) of the project, and standards used by Customer in evaluating its own personnel.
- 20.4 Additional Customer Rights Regarding Security Inquiries. In addition to the foregoing, Customer reserves the right to: (1) have an employee/prospective employee of MIDSTATE ENERGY, LLC. be required to provide fingerprints and execute such other documentation as may be necessary to obtain criminal justice information pursuant to A.R.S. § 41-1750(0)(4); (2) act on newly acquired information whether or not such information should have been previously discovered; (3) unilaterally change its standards and criteria relative to the acceptability of MIDSTATE ENERGY, LLC.'s employees and/or prospective employees; and, (4) object, at any time and for any reason, to an employee of MIDSTATE ENERGY, LLC. performing work (including supervision and oversight) under this Agreement.

20.5 Terms of This Provision Applicable to all of MIDSTATE ENERGY, LLC. Contracts and Subcontracts. MIDSTATE ENERGY, LLC. shall include the terms of this provision for employee background and security checks and screening in all contracts and subcontracts for work performed under this Agreement, including supervision and oversight.

20.6 Materiality of Security Inquiry Provisions. The Security Inquiry provisions of this Agreement, as set forth above, are material to Customer's entry into this Agreement and any breach thereof by MIDSTATE ENERGY, LLC. may, at Customer's option, sole and unfettered discretion, be considered to be a breach of contract of sufficient magnitude to terminate this Agreement. Such termination shall subject MIDSTATE ENERGY, LLC. to liability for its breach of contract.

## **Section 21 No Boycott of Israel**

Pursuant to A.R.S. §35-393 et seq., MIDSTATE ENERGY, LLC. hereby certifies it is not currently engaged in, and for the duration of this Agreement will not engage in, a boycott of Israel. The term "boycott" has the meaning set forth in A.R.S. §35-393.

**IN WITNESS WHEREOF**, and intending to be legally bound, the parties hereto subscribe their names to this instrument on the date first above written.

CITY OF SEDONA

MIDSTATE ENERGY, LLC.

\_\_\_\_\_  
Justin Clifton  
City Manager

\_\_\_\_\_  
John Hobbes  
Chief Executive Officer

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Witness

## Schedule A Summary of Properties

Table A1 lists the properties and their corresponding addresses associated with the CITY OF SEDONA.

**Table A1: Summary of Properties**

#	PROPERTY NAME	ADDRESS	CITY	STATE	ZIP CODE
1	Wastewater Administration	19655 W. State Rte 89A	Sedona	AZ	86336
2	Wastewater Operations	19655 W. State Rte 89A	Sedona	AZ	86336
3	Parks & Recreation	525 Posse Ground Road	Sedona	AZ	86336
4	Police Department	102 Roadrunner Drive	Sedona	AZ	86336
5	City Administration	102 Roadrunner Drive	Sedona	AZ	86336
6	Community Development	102 Roadrunner Drive	Sedona	AZ	86336
7	Courthouse	102 Roadrunner Drive	Sedona	AZ	86336
8	IT/Legal/Public Works	102 Roadrunner Drive	Sedona	AZ	86336

## **Schedule B     Scope of Work**

For detailed scope and specifications refer to the CITY OF SEDONA Investment Grade Audit (IGA) document.

## **Schedule C Savings Calculations**

For detailed energy savings calculations and methodology refer to the CITY OF SEDONA Investment Grade Audit (IGA) document, section 3.

## **Schedule D Maintenance and Service Requirements**

No maintenance program has been determined to be required. Current maintenance procedures are sufficient and must continue. All operation and maintenance requirements for all installed equipment will be provided at project closeout in bound “Operation and Maintenance Manuals” provided to the city for your use.

**Schedule E      Reserved**

Not applicable and intentionally left blank.

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**INSTALLATION AGREEMENT**

**BY AND BETWEEN**

**CITY OF SEDONA**

**AND**

**MIDSTATE ENERGY, LLC.**

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# INSTALLATION AGREEMENT

BY AND BETWEEN

CITY OF SEDONA

AND

MIDSTATE ENERGY, LLC.

**THIS INSTALLATION AGREEMENT** (the “Agreement”) is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by and between the CITY OF SEDONA, having its principal place of business located at 102 Roadrunner Drive, Sedona, Arizona 86336, (hereinafter referred to as “Customer”) and MIDSTATE ENERGY, LLC., having its principal place of business at 23325 N. 23<sup>rd</sup> Avenue, Suite 120, Phoenix, Arizona 85027 (hereinafter referred to as “MIDSTATE ENERGY, LLC.”). The Parties to this Agreement will be collectively referred to as the “Parties” and individually as a “Party”.

**WHEREAS**, Customer wishes MIDSTATE ENERGY, LLC. to perform a project (“Project”) consisting of certain energy conservation services and installations (the “Scope of Services”) at the CITY OF SEDONA described in Attachment A (the “Property”), and MIDSTATE ENERGY, LLC. wishes to perform such services;

**WHEREAS**, State of Arizona legislation provides the authority for public agencies or instrumentalities such as Customer to contract for energy services under such terms as described in State or local regulations.

**WHEREAS**, in accordance with A.R.S. §34-105, MIDSTATE ENERGY, LLC. has been awarded a contract to perform such services under 1GPA Cooperative Procurement Contract (Contract 17-12P-03-Energy Performance Contracting, the “Master Contract”) and this Agreement, and any other agreements related to this project, shall serve as a supplement or addendum to the Master Contract award;

**WHEREAS**, a licensed, registered professional engineer, with credentials from the National Association of Energy Engineers performed an independent, third-party validation of the cost savings calculations as set forth in the proposal as required by A.R.S. §34-105.

**WHEREAS**, in connection with establishing procurement authority for the Customer, Customer and MIDSTATE ENERGY, LLC. desire to take all required actions and steps to comply with A.R.S. §34-105 in connection with this Agreement;

**WHEREAS**, as of the date hereof and in connection with the financing of the Work, Customer is entering into a separate Finance Agreement its successors and/or assigns (the “**Financing Agreement**”).

**NOW, THEREFORE**, in consideration of the mutual promises and agreements contained herein, the Parties hereby agree as follows:

## Section 1 Scope of Services

### 1.1 Construction Work

1.1.1 Once approval has been issued for this Project and, upon delivery by the Customer to MIDSTATE ENERGY, LLC. of a Notice to Proceed, substantially in the form attached to this Agreement as Attachment D, MIDSTATE ENERGY, LLC. shall furnish all labor, materials and equipment and perform all work required for the completion of the Scope of Services set forth in Attachment B, including the installation of the energy conservation measures listed therein (“ECMs”), as such Scope of Services and such Attachments may be modified in accordance with this Agreement. If MIDSTATE ENERGY, LLC. does not receive a Notice to Proceed from Customer within (90) days of contract execution, MIDSTATE ENERGY, LLC. may adjust the contract price accordingly. Customer and MIDSTATE ENERGY, LLC. shall mutually plan the scheduling of the construction work. The construction work will be planned to minimize the interruption of the daily routine of Customer’s staff and students except as discussed and reviewed by Customer. MIDSTATE ENERGY, LLC. will list installed equipment on Attachment I attached hereto and made a part hereof at the time that construction is complete. Attachment I may be modified as provided for herein.

### 1.2 Disposal

1.2.1 MIDSTATE ENERGY, LLC., at its cost, shall be responsible for disposal of all non-hazardous equipment and materials which are rendered useless and removed as a result of the installation of the ECMs pursuant to the Agreement. In addition, MIDSTATE ENERGY, LLC. shall, at its cost, cause all lamps and PCB-contaminated ballasts, if any, which have been rendered useless and removed as a result of the installations of the ECMs to be transported and disposed of via recycling and incineration, respectively. All other existing PCB-contaminated ballasts, lamps and any other hazardous substances, however, remain the responsibility of Customer and MIDSTATE ENERGY, LLC. shall assume no liability in connection with their removal, handling, transportation and/or disposal. In all instances, with the only exception being those hazardous materials that MIDSTATE ENERGY, LLC. brings to the site, the Customer will be the “Generator” of record and sign any and all disposal documents (i.e.

manifests, bills of lading, etc.) in order to document the abatement or removal of any such hazardous materials from Customer's site or premises.

### 1.3 Asbestos

1.3.1 Unless explicitly and specifically identified in Attachment B, MIDSTATE ENERGY, LLC.'s Scope of Services is predicated on the viability of this Project without any asbestos abatement being required by MIDSTATE ENERGY, LLC. In the event that (i) MIDSTATE ENERGY, LLC. encounters any friable asbestos which is in the immediate vicinity of MIDSTATE ENERGY, LLC.'s work, or (ii) MIDSTATE ENERGY, LLC. determines that its work will result in the disturbance of asbestos material, or (iii) MIDSTATE ENERGY, LLC. determines that the presence of asbestos material will impede MIDSTATE ENERGY, LLC.'s work. MIDSTATE ENERGY, LLC. will notify Customer of the same and Customer will, at its cost, cause the asbestos to be promptly and properly removed, enclosed, encapsulated or otherwise abated in accordance with applicable laws and regulations, or alternatively, Customer, at its cost, may provide written test reports showing that asbestos in that area has been properly removed, enclosed, encapsulated or otherwise abated in accordance with applicable laws. In the event MIDSTATE ENERGY, LLC. cannot determine whether any particular material does or does not contain asbestos, Customer, upon MIDSTATE ENERGY, LLC.'s written request, will at its cost, promptly perform tests or cause tests to be performed in order to determine whether or not such material contains asbestos and/or whether there are unacceptable levels of airborne particulate material containing asbestos or provide such a test report. Under no circumstances, shall MIDSTATE ENERGY, LLC. be required to handle asbestos.

## 1.4 Maintenance

1.4.1 To the extent provided for in Attachment H, Maintenance Services, MIDSTATE ENERGY, LLC. will service and maintain the equipment that is specifically identified therein, at a cost to the Customer which is provided for in Section 4 and Attachment F, for the Term of the Agreement. Except for ECMs (or other equipment) which are to be maintained by MIDSTATE ENERGY, LLC., Customer shall be responsible for servicing and maintaining the ECMs (and such other equipment) at its own cost.

## 1.5 Compliance with Law

1.5.1 MIDSTATE ENERGY, LLC. shall comply with and obtain, at its expense, all required licenses and permits required by Federal, State and Local laws in connection with the installation of the ECMs. To the extent that MIDSTATE ENERGY, LLC. agrees to perform operations and/or maintenance of specified ECMs or other equipment, it shall comply with and obtain, at its expense, all licenses and permits which may be required by Federal, State and Local laws in connection with the operation and/or maintenance of such specified ECMs. In the event that MIDSTATE ENERGY, LLC. cannot procure any such license or permit in light of a requirement that Customer is required to do so, Customer will procure the same. MIDSTATE ENERGY, LLC. shall pay the required prevailing wage rates for work in connection with this Project to the extent required by Federal law.

## 1.6 Taxes

1.6.1 Notwithstanding any other provision herein, Customer shall be responsible for all taxes arising from or in connection with Customer's participation in this Agreement and the benefits to Customer hereunder. Customer shall reimburse MIDSTATE ENERGY, LLC. for any taxes, permits or fees not in effect on the date of this Agreement, but for which MIDSTATE ENERGY, LLC. may become liable during the Term of this Agreement. If Customer is a tax-exempt entity, it shall cooperate reasonably with MIDSTATE ENERGY, LLC. to ensure purchases of materials or equipment required under this Agreement enjoy any reasonable favorable tax considerations available under applicable State or local law or regulation.

## 1.7 Non-Discrimination

1.7.1 MIDSTATE ENERGY, LLC. agrees not to knowingly or willfully discriminate against any employee, or applicant for employment, to be employed in the performance of this Agreement, with respect to hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of age, sex, race, disability, color, religion, national origin, Vietnam era military service or ancestry in accordance with applicable Federal, State or Local laws.

## 1.8 Standards of Service and Contract

1.8.1 Customer shall operate the ECMs in a manner that shall provide the standards of service and comfort as defined in the Investment Grade Audit (“IGA”).

## 1.9 Specifications

1.9.1 Prior to beginning the work hereunder, MIDSTATE ENERGY, LLC. may provide (or Customer, at its option, may reasonably request to have MIDSTATE ENERGY, LLC. provide) written specification of, any ECMs to be installed. Customer shall furnish its written approval or disapproval of each such written specification within twenty (20) working days (Attachment K) following its receipt of written notice by MIDSTATE ENERGY, LLC. of completion of each such sample installation or the provision of such written specifications to Customer. Customer’s approval of such specifications shall be in substantially the form of Attachment K hereto. If Customer disapproves any such ECM, MIDSTATE ENERGY, LLC. shall have the right to provide a substitute ECM which conforms to the applicable specifications or is equivalent to any applicable sample provided and approved by Customer hereunder, for customer’s approval. In the event Customer approves the substitute ECMs (in writing), MIDSTATE ENERGY, LLC. shall revise the Attachments to reflect each such substitution, subject to Customer’s written approval of each revised Attachment. In the event that Customer does not approve or disapprove of any ECM(s) within twenty (20) working days following MIDSTATE ENERGY, LLC.’s written notice to Customer that the written specification is ready for inspection, Customer shall be deemed to have given its approval. If, however, Customer again does not approve of any such substituted ECMs or specifications, the Parties hereby agree to

negotiate a mutually acceptable solution. Customer shall not unreasonably withhold any approval provided for herein.

#### 1.10 Duties, Obligations and Responsibilities of MIDSTATE ENERGY, LLC.

- 1.10.1 All labor furnished under this Agreement shall be competent to perform the tasks undertaken, that all materials and equipment provided shall be new and of appropriate quality, and that the completed work shall comply with the requirements of the Agreement.
- 1.10.2 MIDSTATE ENERGY, LLC. shall maintain the Project site in a reasonably clean condition during the performance of the construction work.
- 1.10.3 MIDSTATE ENERGY, LLC. shall thoroughly and regularly clean the project site of all non-hazardous debris, trash and excess material or equipment.
- 1.10.4 At all times relevant to this Agreement, MIDSTATE ENERGY, LLC. shall permit Customer or any of its representatives to enter upon the Project site to review or inspect the construction work without formality or other procedure.
- 1.10.5 MIDSTATE ENERGY, LLC. will provide equipment manuals and other appropriate information regarding equipment installed hereunder to Final Acceptance.

### **Section 2 Ownership of ECMs**

Ownership of and title to the ECMs referenced in Attachment E-1, Delivery and Acceptance Certificate, will automatically transfer to the Customer upon both: (a) the delivery of each such Delivery and Acceptance Certificate and Attachment E-1 by customer to MIDSTATE ENERGY, LLC. the execution and delivery of which shall not be unreasonably withheld or delayed, and (b) completion of all Customer's payment obligations to MIDSTATE ENERGY, LLC. excluding payment obligations related to maintenance, ongoing measurement and verification services, or other annual services hereunder.

### **Section 3 Financial Services**

Reserved

## **Section 4 Compensation and Payment**

- 4.1 During the period beginning on the date of execution of this Agreement and continuing through the Date of Substantial Completion with respect to each Phase, Customer will make monthly progress payments to MIDSTATE ENERGY, LLC. based upon the portion of the Project completed at the end of each month, and any stored materials, as respectively provided for in Attachment F for which payment is being made. Customer shall (within five (5) days of receipt) execute and deliver to MIDSTATE ENERGY, LLC. completed forms E-1 (Attachment E-1) upon completion by MIDSTATE ENERGY, LLC. of each ECM. A Final Delivery and Acceptance Certificate (Attachment E-2) shall be executed by Customer upon final completion of the ECMs. Customer shall not unreasonably withhold or delay the execution of any Delivery and Acceptance certificate, which shall be deemed approved by MIDSTATE ENERGY, LLC. if Customer has not taken action with respect to any Certificate within ten (10) days of its receipt thereof. For the purposes of the Agreement the term "Substantial Completion" shall mean that the subject ECM has been demonstrated by MIDSTATE ENERGY, LLC. to be operating in a manner consistent with its manufacturer's intended use. For the purposes of this Agreement, the terms "Final Completion" or "Final Acceptance" shall mean that MIDSTATE ENERGY, LLC. has fulfilled all of its construction obligations for all ECMs installed under this Agreement. This shall include the completion of all punch list items and the submission of all required documentation.
- 4.2 During the month following each successive twelve (12) month period beginning with the first day of the month following the date on which the Customer executes a Final Delivery and Acceptance Certificate (Attachment E-2), Customer shall pay the annual maintenance and service fees ("Performance Period Fee") set forth in Attachment F.
- 4.3 Ten (10) days after the date of an invoice on account of work done by MIDSTATE ENERGY, LLC., Customer shall pay MIDSTATE ENERGY, LLC.
- 4.4 Amounts not paid to MIDSTATE ENERGY, LLC. on or before the due dates specified in Sections 4.1-4.3 above will accrue interest at the rate of the prime interest rate plus four (4%) percent, per annum, for the number of days following the due date until such time as such amount due has been paid in full.
- 4.5 The services provided for hereunder may overlap one another. In that regard, the payments to be made by Customer to MIDSTATE ENERGY, LLC. with respect to one or more services shall be in addition to one another.

- 4.6 Customer may purchase an extended warranty from MIDSTATE ENERGY, LLC. on all ECMs and related equipment installed under this Agreement for an amount to be mutually determined.
- 4.7 MIDSTATE ENERGY, LLC. will invoice the Customer monthly for services performed and will provide supporting documentation which may be reasonably requested to ensure that the work was actually performed to support the amount requested. In no event shall the Customer prepay or make advancements. Payments shall be made on the basis of percentage of work done, including where applicable materials stored and verified on site. Payment shall be due ten (10) days after receipt of invoice. No other payment shall be made or shall be due and owing by Customer to MIDSTATE ENERGY, LLC. relative to this Agreement. Customer shall withhold retainage as may be allowed and/or required by law including, but not limited to, the Arizona Procurement Code, A.R.S. § 41-2501 et. seq. All payments and any withholding of payments shall be done pursuant to A.R.S. § 41-2576.

## **Section 5 Right of Entry/Space**

During the Term of this Agreement, Customer shall provide MIDSTATE ENERGY, LLC. and its employees, agents and subcontractors, including any utility which provides or may provide any payment under this Agreement, access to the Property pursuant to Section 1.1.1 of this Agreement for the purpose of fulfilling MIDSTATE ENERGY, LLC.'s obligations under this Agreement. Customer shall provide mutually satisfactory space for the installation and operation of the ECMs and shall protect such equipment in the same careful manner that customer protects its Property. Additionally, customer shall provide MIDSTATE ENERGY, LLC. remote electronic access to the Energy Management System (if required) during the Term of this Agreement. MIDSTATE ENERGY, LLC. shall obey and abide by any and all rules of Customer relative to the Property as they would directly relate to MIDSTATE ENERGY, LLC.'s performance of its obligations under this Agreement.

## **Section 6 Changes in Work**

The quantity, quality, dimensions, type or other characteristics of the ECMs may be changed only by written consent of the Customer and MIDSTATE ENERGY, LLC. (and, where required by the Lease, or the Lessor, under the separate Financial Agreement), via the execution of a Change Order Form (Attachment G). In addition, the Scope of Services may be reduced or expanded to include other significant energy conservation measures and facilities not included within the ECMs listed on Attachment B and, following Substantial Completion, listed on Attachment I by the execution of such a Change Order Form.

## **Section 7 Warranties**

7.1 All warranties for materials and workmanship are stipulated by ECM in Attachment B (Scope of Services) and the Investment Grade Audit (IGA). The following provisions will be in effect should any warranty language be omitted from Attachment B or the IGA document.

7.1.1 MIDSTATE ENERGY, LLC. warrants that the design, engineering and installation services it performs will be performed consistent with good engineering practices and that such work is warranted to be free from defects in materials and workmanship for a period of one (1) year from the date of execution of the Delivery and Acceptance Certificate by the Customer with respect to Substantial Completion. Any manufacturer's warranties which exceed this one (1) year period shall be assigned to Customer to the extent allowed by the manufacturer. Except as provided above, MIDSTATE ENERGY, LLC. makes no warranties or representations of any kind, whether statutory, written, oral or implied, including, without limitation, warranties as to the value, design and condition or fitness for use or particular purpose and merchantability, regarding the ECMs or any services provided hereunder.

7.1.2 Individual ECM warranties that extend beyond the warranty defined in above (7.1.1) will transfer to the Customer. MIDSTATE ENERGY, LLC. will not be responsible for administering extended warranties.

- 7.1.3 Customer may purchase extended warranty coverage for any and all equipment installed under this Agreement as long as the annual cost of the project inclusive of the extended warranty coverage does not exceed the guaranteed savings value. Payment of such shall be in accordance with Section 4.4 and Attachment F.

## **Section 8 Customer Role and Responsibilities**

### **8.1 Operations**

- 8.1.1 The Customer shall operate the equipment installed hereunder in accordance with the manufacturer's recommendations and the procedures supplied to the Customer by MIDSTATE ENERGY, LLC.

### **8.2 Maintenance**

- 8.2.1 The Customer shall, at its expense, maintain the Property in good working order during the Term of this agreement. Except as may otherwise be provided for in Attachment H, the Customer will maintain, at Customer's expense: (i) the equipment and all other components which comprise the ECMs (following the date of Substantial Completion), and (ii) all other equipment which is attached thereto and/or is integral to the proper functioning of the ECMs.

### **8.3 Malfunctions**

- 8.3.1 The customer will notify MIDSTATE ENERGY, LLC. immediately in the event of any malfunction in the operation of the ECMs or the equipment installed hereunder.

#### 8.4 Protection of ECMs

8.4.1 Except in the case of emergency, the Customer will not remove, move, alter, turn off or otherwise significantly affect the operation of the equipment installed hereunder or the operation of the ECMs, or any individual part thereof, without the prior approval of MIDSTATE ENERGY, LLC., which approval shall not be unreasonably withheld. After receiving MIDSTATE ENERGY, LLC.'s approval, Customer shall proceed as instructed. Customer shall act reasonably to protect the ECMs from damage or injury, if, due to an emergency, it is not reasonable to notify MIDSTATE ENERGY, LLC. before acting. Customer agrees to protect and preserve the facility envelope and the operating condition of all ECMs, mechanical systems and other energy consuming systems located on the Property.

#### 8.5 Modification of Installed Systems

8.5.1 Customer shall not alter, move, modify or otherwise change the measurement and verification system or any component thereof without the written consent of MIDSTATE ENERGY, LLC. unless such action is in accordance with operating procedures provided by MIDSTATE ENERGY, LLC.

#### 8.6 Reserved

#### 8.7 Changes to Property

8.7.1 The Customer will notify MIDSTATE ENERGY, LLC. in writing at least thirty (30) days prior to making any change to the Property that would significantly affect the energy usage at the Property, including but not limited to changes in the hours of days that the Property is occupied or operated, the number of occupants (including, but not limited to, staff and students), the activity conducted, the equipment or the size of the Property. In the event MIDSTATE ENERGY, LLC. receives such notification or otherwise determines that such a change has occurred, it will make the appropriate revisions to the Attachments or take such other action as may be provided for hereunder.

## 8.8 Energy Usage Data

8.8.1 The Customer will make available to MIDSTATE ENERGY, LLC., on a monthly basis for the Term of this Agreement, copies of all energy bills, energy usage data and any and all other such documentation maintained by the Customer, as requested by MIDSTATE ENERGY, LLC. which is necessary for MIDSTATE ENERGY, LLC. to determine and satisfy all of its obligations under this Agreement.

## 8.9 Insurance and Risk of Loss or Damage

8.9.1 Without limiting any of its obligations or liabilities under this Agreement, the Customer will, at its expense provide and maintain at all times during the Term of this Agreement, sufficient insurance against the loss or theft of or damage to the ECMs related equipment and all components installed hereunder, for the full replacement value thereof.

8.9.2 Customer assumes all risk of loss of, or damage to, the ECMs from any cause whatsoever except to the extent that such loss or damage was caused by the negligence of MIDSTATE ENERGY, LLC. In the event of damage to any item of the equipment installed hereunder or ECMs, Customer will promptly notify MIDSTATE ENERGY, LLC. and immediately place the same in good repair with the proceeds of any insurance received applied to the cost of such repair. If customer determines that any item of the ECMs is lost, stolen, confiscated, destroyed or damaged beyond repair, Customer will replace the same with like equipment in good repair and in a timely fashion.

8.9.3 If, following Customer's execution of the Delivery and Acceptance Certificate to be provided upon Substantial Completion and subsequent to customer's complete payment to MIDSTATE ENERGY, LLC. in accordance with Section 4.1, as that amount may then have been modified in accordance with this Agreement, any fire, flood, other casualty or condemnation renders a majority of the Property incapable of being occupied and renders the ECMs or the equipment installed hereunder inoperable and, in the case of a casualty, the affected portion of such ECMs or equipment is not reconstructed or restored within one hundred and twenty (120) days from the date of such casualty, MIDSTATE ENERGY, LLC. and/or Customer may terminate this Agreement by delivery of a written notice to the other

Party. Upon such termination, Customer shall pay MIDSTATE ENERGY, LLC. any amounts, or pro-rata portions thereof, accrued under Section 4.2-4.5, Attachment F and the applicable Termination value, if any, set forth on Attachment J or in Section 4. MIDSTATE ENERGY, LLC. shall not be responsible for any savings deficiencies resulting from ECMs being rendered useless for the period of time prior to reconstruction of the ECM. The savings guarantee will be adjusted to account for the unavailability of the ECM.

#### 8.10 Telephone / Broadband

8.10.1 Customer is responsible for installing and maintaining either telephone lines or providing broadband access to the energy management system via customer's Local Area Network (LAN). Customer is also responsible for securing remote access to Energy Management System (EMS), or providing required data to be sent to Midstate Energy, LLC. Inc., so that Midstate Energy, LLC. Inc. or its designated third party can execute a review of BAS setpoints from a remote location. Customer is responsible for all associated costs for the energy management system's telephone lines or broadband access.

#### 8.11 Protection

8.11.1 Customer shall at all times act reasonably to protect the ECMs from damage, theft or injury to the same extent and in the same manner in which it protects its other property.

#### 8.12 Alteration

8.12.1 Customer agrees not to move, alter or change the ECMs in any way that causes a reduction in the level of efficiency or savings generated by any ECM or the equipment installed hereunder without obtaining MIDSTATE ENERGY, LLC.'s prior written approval which shall not be unreasonably withheld.

### 8.13 Storage

8.13.1 Customer will provide reasonable rent-free space for MIDSTATE ENERGY, LLC. or any of its subcontractors to mobilize and store its supplies, tools and equipment during installation of the ECMs or other activities by MIDSTATE ENERGY, LLC. within the Property pursuant to this Agreement for which such storage may be required. Said storage space shall be provided with locking capacity acceptable to MIDSTATE ENERGY, LLC. Only MIDSTATE ENERGY, LLC. or any of MIDSTATE ENERGY, LLC.'s subcontractors and the Customer's assigned personnel shall have access to the storage. Customer assumes no responsibility nor will customer provide any additional security for the storage provided.

### 8.14 Fuel

8.14.1 Customer shall procure and pay for all energy and fuel for the operation of the Property.

## **Section 9 Defaults by Customer and Midstate Energy, LLC.**

9.1 Customer shall be in default under this Agreement upon the occurrence of any of the following.

9.1.1 Customer fails to pay, when due, any amount to be paid under this Agreement and such failure continues for a period of five (5) working days after written notice of overdue payment is delivered by MIDSTATE ENERGY, LLC. to the Customer.

9.1.2 Customer fails to perform or meet any of its required duties or obligations under this Agreement and fails to cure such failure and the effects of such failure within thirty (30) days of receipt of written notice of default, unless such failures and effects cannot be completely cured within thirty (30) days after said written notice, in which case a default shall exist only if Customer does not commence and diligently pursue to cure such failure and effects as soon as possible.

9.1.3 Customer goes into receivership, or makes an assignment for the benefit of creditors, whether voluntary or involuntary, or a petition is filed by or against the Customer under any bankruptcy, insolvency or similar law and such petition is not dismissed within sixty (60) days.

9.2 MIDSTATE ENERGY, LLC. shall be in default under this Agreement upon the occurrence of the following.

9.2.1 MIDSTATE ENERGY, LLC. fails to perform or meet any of its required duties or obligations under this Agreement and fails to cure such failure or effects of such failure within thirty (30) days of receipt of written notice of default, unless such failure or effects cannot be completely cured within thirty (30) days after said written notice, in which case a default shall exist only if MIDSTATE ENERGY, LLC. does not commence and diligently pursue to cure such failure as soon as possible.

## **Section 10 Remedies for Defaults**

10.1 In the event Customer defaults under this Agreement, MIDSTATE ENERGY, LLC.:

10.1.1 May bring actions for any remedies available at law or in equity or other appropriate proceedings for the recovery of direct damages (including amounts past due), and/or bring an action in equity for specific performance; and

10.1.2 Without recourse to legal process, may terminate this Agreement by delivery of written notice of termination.

10.2 In the event MIDSTATE ENERGY, LLC. defaults under this Agreement, Customer may terminate this Agreement and bring an action in law for direct damages.

## **Section 11 Arbitration**

In the event of any dispute whatsoever between the Parties, they shall exhaust every reasonable effort to settle or dispose of the same, including a discussion of the matter between senior executives of each party.

11.1 Written notice of any dispute must be provided to the other Party, describing specific details of the dispute relating to changes in work or claim for additional compensations within seven (7) days of the occurrence of discovery of the condition. This notice must be provided via certified mail. For a reasonable period commencing on the day written notice of dispute was provided, but not to exceed thirty (30) days, the Parties shall in good faith attempt to resolve the dispute.

- 11.2 If, after such thirty (30) day negotiation, the dispute remains unresolved, then the Parties agree that any cause the Parties may have arising in relation to this Installation Agreement and all related agreements, including, but not limited to, contract claims and controversies, including claims related to assignees, shall be resolved exclusively through the procedures of the Arizona Procurement Code, A.A.C. R2-7-A901 et seq., and A.A.C. R2-7-B901 et seq., and A.R.S. § 41-2611 through 2617.
- 11.3 The Parties agree that there should be liberal joinder and other entities necessary for a complete resolution of the dispute may be joined in the resolution of the dispute, at the request of either Party.

## **Section 12 Termination**

At any time after the Customer has executed the Delivery and Acceptance Certificate to be provided upon Substantial Completion, Customer may terminate this Agreement upon thirty (30) days written notice to MIDSTATE ENERGY, LLC. provided that Customer has paid to MIDSTATE ENERGY, LLC. (a) all amounts due, subject to Non-Appropriation by the City Council, as set forth in Section 4 and on Attachment F (other than amounts due for future performance by MIDSTATE ENERGY, LLC.).

## **Section 13 Insurance**

- 13.1 Without limiting any of its obligations or liabilities under this Agreement, MIDSTATE ENERGY, LLC. shall provide and maintain at its expense the following minimum insurance coverage's where reasonable market availability for such insurance exists.
- 13.1.1 Workmen's Compensation and Employer's Liability Insurance - \$500,000 each accident; \$500,000 each employee/disease; and \$1,000,000 policy limit.
- 13.1.2 Comprehensive or Commercial General Liability – Bodily Injury Liability of \$1,000,000 per occurrence and General Aggregate Liability of \$2,000,000 per occurrence.
- 13.1.3 Comprehensive Automobile Insurance – Combined single limit of \$1,000,000 per occurrence.
- 13.2 Professional Liability Insurance on occurrence basis - \$1,000,000 per occurrence and General Aggregate Liability of \$2,000,000 per occurrence.

MIDSTATE ENERGY, LLC. shall provide performance and payment bonds in compliance with the Arizona Procurement Code (A.R.S. § 41-2574).

### 13.3 Payment and Performance Bond

13.3.1 MIDSTATE ENERGY, LLC. shall within thirty (30) days of execution of this Agreement, deliver to the Customer or its designee Payment and Performance Bonds in a sum equal to the contract price with sureties satisfactory to the Customer, conditioned upon the faithful performance by MIDSTATE ENERGY, LLC. for the implementation of the ECMs as it may be from time to time modified by Change Orders, such bonds to be in such form and otherwise to contain such provisions as are reasonably satisfactory to the Customer. MIDSTATE ENERGY, LLC. shall deliver to Customer the Payment and Performance Bond prior to commencement of construction of any work in respect of this Agreement. The Payment and Performance Bonds required hereunder shall expire upon final acceptance of all ECMs required under this Agreement, and shall not secure any energy savings, measurement and verification obligations or maintenance/service obligations, which may be guaranteed by MIDSTATE ENERGY, LLC. under this Agreement.

13.4 Customer will provide and maintain insurance as described in Section 8.9.1, naming MIDSTATE ENERGY, LLC. as additional named insured. MIDSTATE ENERGY, LLC. shall be primary/noncontributory on such insurance.

## **Section 14 Indemnification and Limit of Liability**

14.1 Each Party (hereinafter referred to as the “Indemnifying Party”) agrees to defend, indemnify and hold harmless the other Party from and against any and all claims for damages as sustained by third Parties arising by reason of bodily injury or damage to third party property caused by the Indemnifying Party’s willful misconduct or negligent physical acts (or the willful misconduct or negligent physical acts of any entity under the control, responsibility or direction of the Indemnifying Party). In no event, however, shall the Indemnifying Party be obligated to indemnify the other Party to the extent that any injury or damage is caused by the negligence of the other Party or any entity for which the other Party is legally responsible.

14.2 MIDSTATE ENERGY, LLC. shall be solely responsible for and shall indemnify and hold harmless the Customer, its officers, employees and agents (the

“Indemnified Parties”) from and against any and all liabilities, losses, costs, expenses (including, without limitation, reasonable attorneys’ fees and disbursements) and damages (“Losses”), arising out of or in connection with any acts or omissions of the MIDSTATE ENERGY, LLC. or a MIDSTATE ENERGY, LLC. Agent, regardless of whether taken pursuant to or authorized by this Agreement and regardless of whether due to negligence, fault, or default, including losses in connection with any threatened investigation, litigation or other proceeding or preparing a defense to or prosecuting the same; provided, however, that MIDSTATE ENERGY, LLC. shall not be responsible for that portion, if any, of a loss that is caused by the negligence or wrongful act of the Customer.

- 14.3 MIDSTATE ENERGY, LLC. shall, upon the Customer’s demand and at the Customer’s direction, promptly and diligently defend, at MIDSTATE ENERGY, LLC.’s own risk and expense, any and all suits, actions, or proceedings which may be brought or instituted against one or more Indemnified Parties for which MIDSTATE ENERGY, LLC. is responsible under this Section and MIDSTATE ENERGY, LLC. shall pay and satisfy any judgment, decree, loss or settlement in connection therewith.
- 14.4 MIDSTATE ENERGY, LLC. shall, and shall cause MIDSTATE ENERGY, LLC. Agents to, cooperate with the Customer in connection with the investigation, defense or prosecution of any action, suit or proceeding in connection with this Agreement including the acts or omissions of MIDSTATE ENERGY, LLC. and/or a MIDSTATE ENERGY, LLC. Agent in connection with this Agreement.
- 14.5 The provisions of this Section shall survive the termination of this Agreement.
- 14.6 Anything herein notwithstanding, in no event shall either Customer or MIDSTATE ENERGY, LLC. be liable to the other party for special, indirect, incidental or consequential damages, including commercial loss, loss of use, or lost profits, even if either party has been advised of the possibility of such damages.

## **Section 15 Agreement Interpretation and Performance**

The interpretation and performance of this Agreement, and the interpretation and enforcement of the rights of the Parties hereunder, shall be in accordance with and controlled by the laws of the State of Arizona. In the event of any ambiguity or conflict in meaning, the terms of this Agreement shall not be construed against the drafting Party based upon that Party's having drafted this Agreement. All lawsuits commenced under this Agreement shall be brought in that Federal or State Court having jurisdiction over matters arising in the County in which this contract shall be performed (Pinal County, Arizona).

## **Section 16 Privileged and Proprietary Information**

MIDSTATE ENERGY, LLC. systems, means, cost and methodologies of evaluating, implementing, accomplishing and determining energy savings and the terms of the Agreement for this Project shall be considered privileged and proprietary information. Customer shall use the same level of effort to protect and safeguard such information as it employs to safeguard its own confidential information. Customer shall not disclose such proprietary information without the express written consent of an officer of MIDSTATE ENERGY, LLC. unless required to do so by statute or regulation, including, but not limited to, Arizona law related to access of public records. When any request for public records or disclosure of such information is made under any applicable Freedom of Information Law ("FOIL"), Customer will provide prompt verbal and written notice to MIDSTATE ENERGY, LLC. such that MIDSTATE ENERGY, LLC. will have the opportunity to timely object under FOIL should it desire to object to such disclosure of that information in whole or part. In the event that Customer is required to make a filing with any agency or other governmental body, which includes such information, Customer shall notify MIDSTATE ENERGY, LLC. and cooperate with MIDSTATE ENERGY, LLC. in order to seek confidential treatment of such information included within any such filing or, if all such information cannot be protected from disclosure, to request that Customer be permitted to redact portions of such information, as MIDSTATE ENERGY, LLC. may designate, from that portion of said filing which is to be made available to the public.

## **Section 17 Severability**

In the event that any clause or provision of this Agreement or any part thereof shall be declared invalid by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Agreement.

## **Section 18 Assignments and Subcontracting**

- 18.1 MIDSTATE ENERGY, LLC. may elect to use subcontractors in meeting its obligations in this section. Customer may request a detail list of Subcontractors, and shall notify MIDSTATE ENERGY, LLC., in writing of any issues concerning previous work by Subcontractor identified by MIDSTATE ENERGY, LLC.
- 18.2 Customer shall not assign, transfer, or otherwise dispose of this Agreement, the ECMs, or any interest therein, or sublet or lend the ECMs or permit the ECMs to be used by anyone other than the Customer and Customer's employees without the prior express written consent of MIDSTATE ENERGY, LLC. (or, if applicable, the Lessor under the separate Financial Agreement) such consent not to be unreasonably withheld. If Customer transfers ownership or its interest in the Property, the Customer will terminate this Agreement as provided for in Section 12.
- 18.3 MIDSTATE ENERGY, LLC. shall not assign this Agreement in whole or in part to any other party without first obtaining the written consent of Customer, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, MIDSTATE ENERGY, LLC. may assign, without obtaining the written consent of Customer, its rights and obligations under this Agreement in whole or in part to any affiliated or associated company of MIDSTATE ENERGY, LLC. MIDSTATE ENERGY, LLC. will notify Customer fifteen (15) days prior to any such assignment.

## **Section 19 Waiver**

The failure of either Party to require compliance with any provision of this Agreement shall not affect that Party's right to later enforce the same. It is agreed that the waiver by either Party of performance of any other terms of this Agreement or of any breach thereof will not be held or deemed to be a waiver by that Party of any subsequent failure to perform the same or any other term or condition of this Agreement or any breach thereof.

## Section 20 Force Majeure

- 20.1 If either Party shall be unable to carry out any part of its obligations under this Agreement (except Customer's obligation to make payments when due) due to causes beyond its control ("Force Majeure"), including, but not limited to, an act of God, strikes, lockouts or other industrial disturbances, acts of public enemies, orders or restraints of any kind of the government of the United States or any State or any of their departments, agencies, or officials, or any other civil governmental, transportation delays, military or judicial authority, war, blockage, insurrection, riot, sudden action of the elements, fire, explosion, flood, earthquake, storms, drought, landslide, or explosion or nuclear emergency; this Agreement shall remain in effect but the affected Party's obligations shall be suspended for a period equal to the disabling circumstances, provided that:
- 20.1.1 The non-performing Party gives the other Party prompt written notice describing the particulars of the Force Majeure, including but not limited to the nature of the occurrence and its expected duration, and continues to furnish timely regular reports with respect thereto during the period of Force Majeure.
  - 20.1.2 The suspension of performance is of no greater scope and of no longer duration than is required by the Force Majeure.
  - 20.1.3 No obligations of either Party that arose before the Force Majeure causing the suspension of performance are excused as a result of the Force Majeure.
  - 20.1.4 The non-performing Party uses reasonable efforts to remedy its inability to perform.
  - 20.1.5 The Term of this Agreement, at MIDSTATE ENERGY, LLC.'s option, shall be extended for a period equal to the number of days that the Force Majeure prevented the non-performing Party from performing.
- 20.2 Any decision by the Customer to close or change the use of the facilities or ECMs at the Property shall not constitute a Force Majeure excusing customer's performance under this Agreement.

## **Section 21 Contract Documents**

- 21.1 Upon execution of this Agreement by both Parties, this Agreement and its Attachments will constitute the entire Agreement between the Parties relating to the subject matter hereof, and supersedes all proposals, previous agreements, discussions, correspondences and all other communications, whether oral or written, between the Parties relating to the subject matter of this Agreement.
- 21.2 Headings are for the convenience of reference only and are not to be construed as a part of the Agreement.
- 21.3 This agreement may not be modified or amended except in writing signed by all Parties.
- 21.4 This Agreement may be executed simultaneously in two (2) or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.
- 21.5 The order of precedence for the document for clarification and contract interpretation in the event of a conflict/clarity shall be:
- Master Contract (1GPA Contract 17-12P-03)
  - Installation Agreement
  - Guaranteed Savings Agreement
  - Investment Grade Audit (IGA)

## **Section 22 Notices**

- 22.1 All notices and other communication under this Agreement (other than regularly scheduled payments) shall be deemed properly given upon receipt if delivered in person, if sent via electronic mail, regular mail follow-up or sent by overnight delivery service or sent by registered mail, return receipt requested and postage prepaid, addressed as follows:

To: City of Sedona  
102 Roadrunner Drive  
Sedona, Arizona 86336  
Attention: Justin Clifton  
Email: JClifton@sedonaaz.gov

To: MIDSTATE ENERGY, LLC.  
23325 N. 23<sup>rd</sup> Avenue, Suite 120  
Phoenix, Arizona 85027  
Attention: John Hobbes, CEO  
Email: jhobbes@midstate-energy.com

Either Party may change such address from time to time by written notice to the other Party.

## **Section 23 Records**

To assist MIDSTATE ENERGY, LLC. in its performance of this Agreement, Customer shall (to the extent it has not already done so) furnish (or cause its energy suppliers to furnish) to MIDSTATE ENERGY, LLC. upon its request, accurate and complete data (kept by Customer or Customer's energy suppliers in the regular course of their respective businesses) concerning energy usage for the existing facilities at the Property, including the following data for the most current thirty-six (36) month period: utility records, occupancy information; descriptions of any changes in building structure or heating, cooling or other systems or energy requirements; descriptions of all energy consuming or saving equipment used on Property; descriptions of all energy management procedures presently utilized.

## **Section 24 Representations and Warranties**

Each Party warrants and represents to the other that:

- 24.1 It has all requisite power, authority, licenses, permits and franchises, corporate or otherwise, to execute and deliver this Agreement and perform its obligations hereunder.
- 24.2 Its execution, delivery and performance of this Agreement have been duly authorized by, or are in accordance with, as to MIDSTATE ENERGY, LLC., its organic instruments and, as to Customer, by all requisite municipal, board, or other action and are not in breach of any applicable law, code or regulation; this Agreement has been duly executed and delivered by the signatories so authorized and constitutes each Party's legal, valid and binding obligation.
- 24.3 Its execution, delivery and performance of this Agreement shall not result in a breach or violation of, or constitute a default under, any agreement, lease or instrument to which it is a party or by which it or its properties may be bound or affected.

- 24.4 It has not received any notice, nor to the best of its knowledge is there pending or threatened any notice of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially adversely affect its ability to perform hereunder.
- 24.5 The persons executing this Agreement are fully authorized by law to do so.
- 24.6 In addition, Customer warrants and represents to MIDSTATE ENERGY, LLC. that Customer has obtained or shall obtain all necessary Governmental, legal, administrative and other approval necessary for it to enter into this Agreement.

## **Section 25 Independent Contractor**

Nothing in this Agreement shall be construed as reserving to Customer any right to exercise any control over or to direct in any respect the conduct or management of business or operations of MIDSTATE ENERGY, LLC. on the Property. The entire control or direction of such business and operations shall be in and shall remain in MIDSTATE ENERGY, LLC., subject only to MIDSTATE ENERGY, LLC. performance of its obligations under this Agreement. Neither MIDSTATE ENERGY, LLC. nor any person performing any duties or engaged in any work on the Property on behalf of MIDSTATE ENERGY, LLC. shall be deemed an employee or agent of Customer.

Nothing in this Section shall be deemed to be a waiver of the Customer of the right to use its Property. The Customer and MIDSTATE ENERGY, LLC. are independent of one another and shall have no other relationship relating to or arising out of this Agreement. Neither Party shall have or hold itself out as having the right or authority to bind or create liability for the other by its intentional or negligent act or omission, or to make any contract or otherwise assume any obligation or responsibility in the name of or on behalf of the other Party.

## **Section 26 Additional Representations and Warranties of Customer**

Customer hereby warrants and represents to MIDSTATE ENERGY, LLC. that:

- 26.1 Customer presently intends to continue to use the Property in a manner reasonably similar to its present use.
- 26.2 Customer does not presently contemplate any changes to the electrical and thermal consumption characteristics of the Property as these existed during

the base period except as may have been disclosed to MIDSTATE ENERGY, LLC. by Customer in writing prior to the execution of this Agreement.

26.3 Customer has provided MIDSTATE ENERGY, LLC. with all records heretofore requested by MIDSTATE ENERGY, LLC. and, in that regard, MIDSTATE ENERGY, LLC. acknowledges that it has received base period data from Customer which appears to be complete as of the date of this Agreement, and that the information set forth therein is, and all information in other records to be subsequently provided pursuant to this Agreement shall be, true and accurate in all material respects except as may be disclosed by Customer in writing.

26.4 Customer has not entered into any contracts or agreements for the Property with persons or entities other than MIDSTATE ENERGY, LLC. regarding the provision of the energy services referenced herein.

## **Section 27 Absence of Fraud or Collusion**

MIDSTATE ENERGY, LLC. hereby certifies, by its execution of this Agreement, that no official or employee of Customer has any pecuniary interest in this Agreement or in the expected profits to arise here from, and that this Agreement is made in good faith without fraud or collusion with any other person involved in the bidding process.

## **Section 28 Negligent / Wrongful Acts**

It is understood and agreed that neither Party to this Agreement shall be liable for any negligent or wrongful acts, either of commission or omission, chargeable to the other, unless such liability is imposed by law, and that this Agreement shall not be construed as seeking to either enlarge or diminish any obligation or duty owed by one Party against the other or against third Parties.

## **Section 29 Further Documents and Events**

The Parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement, in that regard, it being understood and agreed that MIDSTATE ENERGY, LLC. covenants and agrees to execute or procure the execution of all documents reasonably required to release any lien held by MIDSTATE ENERGY, LLC. or its assignees upon the termination of this Agreement and payment of all amounts required to be paid by Customer to MIDSTATE ENERGY, LLC. pursuant to this Agreement, including but not limited to the Termination Value, if any. It being further agreed and understood

that Customer agrees to execute all documents which may be reasonably required by an entity which provides funds for any financing contemplated herein and to cooperate with MIDSTATE ENERGY, LLC. in obtaining such funds.

It is further understood that Customer agrees to execute all documents which may be reasonably required to obtain all licenses, permits and governmental approvals required by MIDSTATE ENERGY, LLC. for installation and operation of the ECMs. MIDSTATE ENERGY, LLC.'s obligations hereunder are also subject to obtaining any such licenses, permits and governmental approvals.

## **Section 30 Procurement**

30.1. Each Party acknowledges that it is the intention of the Parties to comply with the statutory requirements of A.R.S §34-105 and budgeting requirements where necessary and this Agreement is a valid obligation on its part and all requirements have been met and procedures have been followed to ensure the enforceability of the Agreement subject to bankruptcy, insolvency and similar laws and to the exercise of judicial discretion. Customer's performance under this Agreement is contingent upon continued sufficient appropriations and availability of other funds to pay all amounts due hereunder. The execution of this Agreement is contingent upon completion of financing and performance under any financing agreement. Should Customer fail to conclude the financing agreements or should they fail to perform the financing agreement for any reason beyond Customer's control, this Agreement shall be null and void ab initio and there shall be no damages or claims against the Customer in such case. Customer shall pay for the performance of any Work completed on or before any such failure.

30.2. The Parties agree and acknowledge that the Project and any services provided under this Agreement, are procured by Customer under the Master Contract referenced above.

30.3. The Parties agree and acknowledge that among the services provided hereunder, and under the Master Contract, and pursuant to A.R.S. §203.1, are included legal and financial services on behalf of the Customer, and the costs of said services are included within the overall guaranteed energy savings value. The Parties acknowledge and agree that the legal services are provided on behalf of the Customer, the Customer has sole and absolute discretion to employ and direct any lawyer(s) providing legal services here under, and the Customer is "the client" for purposes of any professional ethics or conflict of interest rules between the lawyer(s) and the Parties.

## **Section 31 Conflict of Interest Termination Right**

Each Party gives notice to the other Parties that A.R.S. § 38-511 provides that the State of Arizona (the "State"), its political subdivisions or any department or agency of either, may within three (3) years after its execution cancel any contract without penalty or further obligation made by the State, its political subdivisions or any of the departments or agencies of either, if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the State, its political subdivisions or any of the departments or agencies of either, is at any time while the contract or any extension of the contact is in effect, an employee

or agent of any other party to the contract in any capacity or a consultant to any other party to the contract with respect to the subject matter of the contract.

### **Section 32 E-Verify Requirements**

To the extent applicable under A.R.S. § 41-4401, MIDSTATE ENERGY, LLC. and its subcontractors represent and warrant compliance with all Federal immigration laws and regulations that relate to their employees and compliance with the E-Verify requirements under A.R.S. § 23-214(A). MIDSTATE ENERGY, LLC. or its subcontractor's breach of the above-mentioned representation shall be deemed a material breach of this Agreement and may result in the termination of this Agreement by the Customer. During normal business hours and with adequate advance notice, the Customer retains the legal right to randomly inspect the papers and records of MIDSTATE ENERGY, LLC. and its subcontractors who work on this Agreement to ensure that MIDSTATE ENERGY, LLC. and its subcontractors are complying with the above-mentioned warranty. In addition, MIDSTATE ENERGY, LLC. and its subcontractors warrant keeping the papers and records open for random inspection by the Customer during normal business hours. MIDSTATE ENERGY, LLC. and its subcontractors shall cooperate with the Customer's random inspections including granting the Customer entry rights onto its Property to perform the random inspections and waiving their respective rights to keep such papers and records confidential. Notwithstanding the foregoing, nothing in this Section shall require MIDSTATE ENERGY, LLC. and its subcontractors to violate any laws related to employee record keeping and employee and independent contractor rights to privacy or confidentiality.

### **Section 33 Securities in Lieu of Retention**

If MIDSTATE ENERGY, LLC. elects to provide securities in lieu of retention, it shall be done in strict compliance with A.R.S. § 41-2576 and A.A.C. R2-7-509 and 510.

### **Section 34 Davis-Bacon Act/Buy American**

MIDSTATE ENERGY, LLC. Has NOT included Davis-Bacon wages and has NOT included any cost to comply with the Davis-Bacon Wage Act; specifically, 40 USCS § 3142(a)(c), or any requirements to comply with any Buy American Requirements.

### **Section 35 Worker Suitability**

MIDSTATE ENERGY, LLC., by its signature below, warrants and certifies that it shall cause any employee, subcontractor or employee of subcontractor or others for whom MIDSTATE ENERGY, LLC. is responsible (hereinafter collectively referred to as “MIDSTATE ENERGY, LLC. and Agents”) to obtain and possess a valid fingerprint clearance card pursuant to Title 41, Chapter 12, and Article 3.1 of the Arizona Revised Statutes.

### **Section 36 Governing Law**

This Agreement shall be governed under the laws of the State of Arizona without regard to the principles of conflict of laws. The Parties consent and submit to the exclusive jurisdiction and venue of the Federal and State courts located in Yavapi County of the State of Arizona.

### **Section 37 Third Party Beneficiaries**

Except as may be specifically provided for in this Agreement, the Parties hereto do not intend to create any rights for, or grant any remedies to, any third-party beneficiary of this Agreement.

### **Section 38 Notifications of Governmental Action Occupational Safety and Health**

The Parties agree to notify each other as promptly as is reasonably possible upon becoming aware of an inspection under, or any alleged violation of, the Occupational Safety and Health Act or any other provision of Federal, State or Local Law, relating in any way to the undertakings of either Party under this Agreement.

### **Section 39 References**

Unless otherwise stated all references to a particular attachment or to attachments herein are to the referenced Attachment or Attachments which are attached to the Agreement and all such referenced Attachments are incorporated by reference within this Agreement. All references herein to a Section shall refer to a Section of this Agreement unless this Agreement specifically provides otherwise.

### **Section 40 Approval**

This Agreement shall not be executory until all necessary State or Local approvals are obtained.

**Section 41 No Boycott of Israel**

Pursuant to A.R.S. §35-393 et seq., Midstate Energy LLC. hereby certifies it is not currently engaged in, and for the duration of this Agreement will not engage in, a boycott of Israel. The term “boycott” has the meaning set forth in A.R.S. §35-393.

**IN WITNESS WHEREOF**, the duly authorized officers or representatives of the Parties have set their hand on the date first written above with the intent to be legally bound.

CITY OF SEDONA

MIDSTATE ENERGY, LLC.

\_\_\_\_\_  
Justin Clifton  
City Manager

\_\_\_\_\_  
John Hobbes  
Chief Executive Officer

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Witness

## ATTACHMENT A: SUMMARY OF PROPERTIES

Table A1 lists the properties and their corresponding addresses associated with this project.

**Table A1: Summary of Properties**

#	PROPERTY NAME	ADDRESS	CITY	STATE	ZIP CODE
1	Wastewater Administration	19655 W. State Rte 89A	Sedona	AZ	86336
2	Wastewater Operations	19655 W. State Rte 89A	Sedona	AZ	86336
3	Parks & Recreation	525 Posse Ground Road	Sedona	AZ	86336
4	Police Department	102 Roadrunner Drive	Sedona	AZ	86336
5	City Administration	102 Roadrunner Drive	Sedona	AZ	86336
6	Community Development	102 Roadrunner Drive	Sedona	AZ	86336
7	Courthouse	102 Roadrunner Drive	Sedona	AZ	86336
8	IT/Legal/Public Works	102 Roadrunner Drive	Sedona	AZ	86336

## ATTACHMENT B: SCOPE OF WORK

Table B1 summarizes the ECMs to be included in this project. For a detailed scope and specifications refer to the Investment Grade Audit (IGA) document.

**Table B1: ECM Summary**

#	PROPERTY NAME	ECM 1	ECM 2	ECM 3	ECM 4	ECM 5
		Lighting Savings	Water Savings	HVAC Savings	Energy Management System	Data Management Savings
1	Wastewater Administration	X	X		X	X
2	Wastewater Operations	X	X		X	X
3	Parks & Recreation	X	X		X	X
4	Police Department	X	X		X	X
5	City Administration	X	X	X	X	X
6	Community Development	X	X		X	X
7	Courthouse	X	X	X	X	X
8	IT/Legal/Public Works	X	X		X	X

## **General ECM Descriptions**

MIDSTATE ENERGY LLC. will implement Energy Conservation Measures (ECMs) to reduce both energy and water consumption. A detailed description of each ECM, including system description, savings amounts and equipment to be installed, can be found in Section 2 of the Investment Grade Audit (IGA); however, below is a brief summary of the project:

### **1. Lighting Savings**

Interior: Where applicable, existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Where applicable, existing fixtures that are not currently LED will be replaced with new LED fixtures or retrofitted with LED lamps.

### **2. Water Savings**

Retrofit existing plumbing system with upgraded fixtures and valves to reduce the water required for proper flushing, washing and cleaning services.

### **3. HVAC Savings**

Remove and replace old equipment nearing the end of its useful life with New High Efficiency equipment. All new equipment to be a minimum of 14 SEER and have code compliant fresh air quantities.

### **4. Energy Management System Savings**

Upgrade existing system to WEB based system to tie in new air conditioning units and balance remaining schedules and set points.

### **5. Data Management Savings**

Utility bill analysis and rate strategy, data management and reporting, energy vision, goals and policy, utility load shifting program and Environmental Monitoring Systems.

## **ATTACHMENT C: EQUIPMENT LEASE DOCUMENTS**

1. Equipment Lease Documents were not applicable at the time of the Installation Agreement execution.

**ATTACHMENT D: NOTICE TO PROCEED**

MIDSTATE ENERGY, LLC.  
John Hobbes, CEO  
23325 N. 23rd Avenue, Suite 120  
Phoenix, Arizona 85027

**Subject: Notice to Proceed**

Dear Mr. Hobbes,

In accordance with Section 1.1.1 of our Installment Agreement dated \_\_\_\_\_, 2018, the Customer hereby submits to MIDSTATE ENERGY, LLC. this **Notice to Proceed** in relation to the Scope of Services defined in the aforementioned agreement, for the Customer.

Sincerely,

CITY OF SEDONA

---

Signature

Date

---

Printed Name

Title

**ATTACHMENT E-1: SUBSTANTIAL COMPLETION**

**DELIVERY AND ACCEPTANCE CERTIFICATE  
UPON SUBSTANTIAL COMPLETION**

Customer hereby acknowledges receipt of the Energy Conservation Measure(s) (the “ECM(s)”) described in the applicable Attachment B to the Installation Agreement (the “Agreement”) between Customer and MIDSTATE ENERGY, LLC., as fully installed and in good working condition, which are listed and attached hereto. Customer hereby accepts the ECM(s) listed hereto after full inspection thereof as satisfactory for all purposes of the Agreement to which this Attachment E-1 is attached and the Lease executed by Customer and Lessor, MIDSTATE ENERGY, LLC. Customer agrees to make the related payment(s) to MIDSTATE ENERGY, LLC. as set forth in Section 4 of the Agreement.

Substantial Completion Date: \_\_\_\_\_

ECM(s):

Date Accepted by Customer: \_\_\_\_\_

Accepted for: CITY OF SEDONA

Accepted by:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

## ATTACHMENT E-2: FINAL ACCEPTANCE

### FINAL DELIVERY AND ACCEPTANCE CERTIFICATE UPON FINAL ACCEPTANCE OF PROJECT

Customer hereby acknowledges Final Acceptance of all Energy Conservation Measure(s) (the “ECM(s)”) described in the applicable Attachment B to the Installation Agreement (the “Agreement”) between Customer and MIDSTATE ENERGY, LLC. The date of Final Acceptance is the date certified by the Customer that the Work has been installed, functionally tested and all punch list items completed in accordance with the Contract Documents, so that the Customer has possession of the Work and can use it for its intended use. Customer hereby accepts the ECMs listed in Attachment B after full inspection thereof as satisfactory for all purposes of the Agreement. Customer agrees to make the required payment(s) to MIDSTATE ENERGY, LLC. as set forth in Section 4 and Attachment F of the Agreement.

Date Accepted by Customer:

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Accepted for:

CITY OF SEDONA

Accepted by:

---

Signature

---

Name

---

Title

## **ATTACHMENT F: CONTRACT COST AND ANNUAL SERVICES**

Total Project Cost: Enter Amount \$371,998

1. The Total Project Cost above will be billed monthly, based on installation progress. The billed monthly amount may include payment for any stored equipment, as allowed by Arizona law.
2. As referenced in the Investment Grade Audit (IGA) and Guaranteed Savings Agreement (GSA), the first year Annual Measurement and Verification Program Cost is \$3,500.00

# ATTACHMENT G: CHANGE ORDER FORM

(Request & Agreement for Change in Plans and/or Specifications and/or Contract)

Change Request No. \_\_\_\_\_

Customer: \_\_\_\_\_ Department: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_

I. REQUEST Date: \_\_\_\_\_

(a) Requested by \_\_\_\_\_ of \_\_\_\_\_

(b) Description of change \_\_\_\_\_  
\_\_\_\_\_

## II. MIDSTATE ENERGY, LLC.'s AGREEMENT

For all costs involved in this change including extensions of time herein requested MIDSTATE ENERGY, LLC. proposes to perform the work described in accordance with the provisions of the subject Agreement and certifies that the attached cost data is accurate, complete and current, and mathematically correct.

If necessary, attach detailed estimates and breakdown for above in accordance with change order instruction. A claim for work performed under protest may be submitted in writing.

An extension of contract time of \_\_\_\_\_ calendar days to \_\_\_\_\_ is requested of

MIDSTATE ENERGY, LLC. \_\_\_\_\_ Date: \_\_\_\_\_

**CUSTOMER APPROVAL: Error! Reference source not found. CITY OF SEDONA**

By: _____	Contract Award: \$ _____
	Previous Additions: \$ _____
	Previous Deductions: \$ _____
Title: _____	Net Total: \$ _____
	This Change: \$ _____
	Total: \$ _____
Date: _____	



## **ATTACHMENT H: MAINTENANCE SERVICES**

No maintenance program has been determined to be required. Current maintenance procedures are sufficient and must continue. All operation and maintenance requirements for all installed equipment will be provided at project closeout in bound "Operation and Maintenance Manuals" provided to the city for your use.

Equipment storage location and approval shall be made by Richard Underwood or his representative to Midstate Energy prior to securing any area for fencing and or storage containers.

## **ATTACHMENT I: MIDSTATE ENERGY, LLC. INSTALLED EQUIPMENT**

1. The installed equipment scope is detailed in Section 2 of the Investment Grade Audit. Submittal data and scopes are laid out in detail within the Appendixes at the end of the IGA document for clarification.

## **ATTACHMENT J: NEGOTIATED MODIFICATIONS**

### **Negotiated Modification to Technical Energy Audit Documentation**

1. There were no modifications to the Technical Energy Audit at the time of Installation Agreement execution.

# ATTACHMENT K: CUSTOMER'S APPROVAL FORM

## FORM OF CUSTOMER'S APPROVAL OF SAMPLE OR SPECIFICATIONS

To be completed no later than twenty (20) days after the Notice to Proceed (Attachment D). Failure by the Customer to execute Attachment K, within twenty (20) days shall be construed by MIDSTATE ENERGY, LLC. as Approval of the attached equipment specification.

The City of Sedona has reviewed product selection – as submitted in the Investment Grade Audit (IGA) and found the noted product to be acceptable.

Signed by: \_\_\_\_\_

CITY OF SEDONA

CITY OF SEDONA reviewed product selection – as submitted in the Investment Grade Audit (IGA) and request the following:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Signed by: \_\_\_\_\_

CITY OF SEDONA



Acknowledgement:

The City of Sedona has read and reviewed the enclosed Investment Grade Audit and agrees with the terms and conditions herein:

\_\_\_\_\_  
City of Sedona

\_\_\_\_\_  
Date:

# Table of Contents



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# Section 1.0 - Executive Summary

## PURPOSE

The purpose of the Investment Grade Audit (IGA) is to conduct a total site-wide analysis of each building to determine its current energy consumption, identifying areas for improvement and the measures that can be implemented and funded solely through energy savings.

The results will be used to implement a Performance Contract that is compliant with ARS 34-105.

## METHODOLOGY

Midstate Energy, LLC. as well as our subcontractors and consultants, visited the following City of Sedona sites on numerous occasions.

#	PROPERTY NAME	ADDRESS	CITY	STATE	ZIP CODE
1	Wastewater Administration	19655 W. State Rte 89A	Sedona	AZ	86336
2	Wastewater Operations	19655 W. State Rte 89A	Sedona	AZ	86336
3	Parks & Recreation	525 Posse Ground Road	Sedona	AZ	86336
4	Police Department	102 Roadrunner Drive	Sedona	AZ	86336
5	City Administration	102 Roadrunner Drive	Sedona	AZ	86336
6	Community Development	102 Roadrunner Drive	Sedona	AZ	86336
7	Courthouse	102 Roadrunner Drive	Sedona	AZ	86336
8	IT/Legal/Public Works	102 Roadrunner Drive	Sedona	AZ	86336

The Midstate Energy, LLC. team interviewed City staff regarding the occupancy, space utilization, conditions maintained, existing system deficiencies and the staff's opinions as to what opportunities may exist. Observations of equipment conditions and other signs of operational issues were noted.

In the process of the IGA, Midstate Energy, LLC. arrived at the following Energy Conservation Measures (ECMs) at the above listed sites.

# Section 1.0 - Executive Summary

ECM #	ENERGY CONSERVATION MEASURE (ECM)
1	Lighting Savings
2	Water Savings
3	HVAC Savings
4	Energy Management System Savings (EMS)
5	Data Management Savings

During the process, preliminary costs and savings were determined, the findings were shared with the City of Sedona. Midstate Energy, LLC. and the City of Sedona went through the exercise of jointly selecting the final mix of ECMs to meet the City’s infrastructure goals and objectives and still meet the financial requirements of the Arizona statutes for Performance Contracting. After the final selection of ECMs were completed by the City of Sedona, Midstate Energy, LLC. then prepared this final IGA report. The selected ECMs are included as the project scope of work and are the source of energy savings which are documented in Section 3 and Section 4.

# Section 1.0 - Executive Summary

## ECM SUMMARY

A detailed description of each ECM can be found in Section 2 - Technical Report.

#	PROPERTY NAME	ECM 1	ECM 2	ECM 3	ECM 4	ECM 5
		Lighting Savings	Water Savings	HVAC Savings	Energy Management System Savings	Data Management Savings
1	Wastewater Administration	X	X		X	X
2	Wastewater Operations	X	X		X	X
3	Parks & Recreation	X	X		X	X
4	Police Department	X	X		X	X
5	City Administration	X	X	X	X	X
6	Community Development	X	X		X	X
7	Courthouse	X	X	X	X	X
8	IT/Legal/Public Works	X	X		X	X

## GENERAL ECM DESCRIPTIONS

Midstate Energy, LLC. will implement ECMs to reduce both energy and water consumption. A detailed description of each ECM - including system description, savings amounts and equipment to be installed - can be found in Section 2; however, a brief summary of the project is as follows:

### ECM 1 – LIGHTING SAVINGS

Interior: Where applicable, existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Keyless fixtures would be re-lamped with 8.5W LED lamps.

Exterior: Where applicable, existing fixtures that are not currently LED will be replaced with new LED fixtures or retrofitted with LED lamps.

**For more detailed specifications, please refer to Appendix A, ECM 1 – Lighting.**

# Section 1.0 - Executive Summary

## **ECM 2 - WATER SAVINGS**

Where applicable, retrofit existing plumbing system with upgraded fixtures and valves to reduce the water required for proper flushing.

**For more detailed specifications, please refer to Appendix B, ECM 2 – Water.**

## **ECM 3 – HVAC SAVINGS**

Remove and replace old equipment nearing the end of their useful life with New High Efficiency equipment. As specified, new equipment to be a minimum of 14 SEER, and have code compliant fresh air quantities.

**For more detailed specifications, please refer to Appendix C, ECM 3 – HVAC.**

## **ECM 4 – ENERGY MANAGEMENT SYSTEM SAVINGS**

At sites specified in detailed description upgrade existing system to WEB based system to tie in air conditioning units and balance remaining schedules and set points.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

## **ECM 5 – DATA MANAGEMENT SAVINGS**

Utility bill analysis and rate strategy, data management and reporting, energy vision, goals and policy, utility load shifting program and Environmental Monitoring Systems.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 1.0 - Executive Summary

## PENDING FINAL FINANCIAL PROFORMA

The following table represents the projected **first year** financial summary that will result from implementing the performance Contract. The projected financial summary represents the projections during the 12-year contract term required to amortize the investment in the building infrastructure upgrades.

The financial summary is modeled using projected savings and using an indicative investment rate for the supporting lease agreement. The intent is to model the transaction, for illustrative purposes only, the final interest rate and lease cost which will be captured in an agreement between the lender and the City.

Project Total	Owner Contribution	Financed Amount	Total First Year Savings	Potential Rebates*	Total First Year Benefits	Payback
\$371,998	\$0	\$371,998	\$38,641	\$0	\$38,641	9.6

\* *Rebates are estimated in conjunction with the utility provider and are not guaranteed.*

**The performance contract proposed by Midstate Energy, LLC. guarantees that savings will equal program cost (Annual Lease Costs + Annual M&V Costs) on an annual basis.**

# Section 2.0 - Technical Report

After investigating the eight sites provided by the City, Midstate Energy, LLC. has developed a list of ECMs that fit the criteria outlined in the City documents as well as provided a solid Energy Performance Project. On the following pages each ECM is summarized both with a description of the existing conditions as well as the proposed energy upgrade.

## Wastewater Administration

## Wastewater Operations

## Parks & Recreation

## Police Department

## City Administration

## Community Development

## Courthouse

## IT/Legal/Public Works

# Section 2.0 - Technical Report

## Wastewater Administration: ECM 1 – Lighting

### Existing Lighting Conditions

Interior: 2nd generation 17W and 32W T8 fluorescent lamps and electronic ballasts. 13-26W compact fluorescent lamps in recessed can and pendants. Jelly jar fixtures have 60W incandescent lamps.

Exterior: 400W high pressure sodium in pole mounted fixtures. 50-70W high pressure sodium in wall packs.

### Lighting Upgrades Summary

Interior: Where applicable existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Install new 153W LED pole fixtures. Install new 21W LED wall packs.

**For more detailed specifications, please refer to Appendix A, ECM 1 - Lighting.**

# Section 2.0 - Technical Report

## Wastewater Administration: ECM 2 – Water

### Existing Water Conditions

A variety of different toilet and urinal fixture types were identified. The majority of toilet fixtures are designed at 1.6 gpf, but exhibited flush rates in excess of 3.0 gallons. All of the urinals identified are 1.0 gpf (small water spot) urinal fixtures with diaphragm valves. Many of the urinals exhibited flush rates in excess of 1.8 gallon due to degradation of diaphragm valve components. A variety of different faucet fixtures were identified during walkthroughs. The majority of faucets identified contained their original aerators exhibiting flow rates ranging from 2.0 gpm to 3.0 gpm.

### Water Upgrades Summary

The opportunities discovered and proposed for the City include: domestic plumbing improvements such as low-flow toilet and urinal retrofits/replacements, faucet retrofits/replacements, and showerhead replacements. Refer to the table below for site specific conservation measures.

PROPERTY	TOILET RETROFITS/ REPLACEMENTS	URINAL RETROFITS/ REPLACEMENTS	FAUCET RETROFITS/ REPLACEMENTS	SHOWERHEAD REPLACEMENTS
Wastewater Administration	4	0	2	1

For more detailed specifications, please refer to Appendix B, ECM 2 - Water.

# Section 2.0 - Technical Report

## Wastewater Administration: ECM 4 – Energy Management System

### Existing Energy Management System Conditions

The City is comprised of (RTU) rooftop air conditioning units and (S/S) split system units, controlled by a variety of digital thermostats. These thermostats provide access for occupants to make adjustments; however, they see need in acclimating the room, causing increases in energy consumption, while reducing the equipment life cycle.

### Energy Management System Upgrades Summary

Where applicable, provide and install new web based “open protocol” thermostat (Ecobee, Autani, or approved equal) for remote, mobile and tablet access (IT protected). Providing occ/unocc scheduling, unit efficiency control sequencing, with staggered startups for reducing power consumption. Controllers can be scheduled per user needs with allowing controlled access for setpoint adjust, via the wall mounted thermostat.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

# Section 2.0 - Technical Report

## Wastewater Administration: ECM 5 – Data Management

### Existing Data Management Conditions

There is currently no data management program in place at the site.

### Data Management Upgrades Summary

1. Utility Bill Analysis: MIDSTATE ENERGY, LLC will review the rate plan for each of your electric meters to determine whether or not you are on a rate plan that provides you with the lowest charges each month.
2. Fusebox Software: An energy management software, to compile, track and analyze utility data. This product can be used to help cities create their own comprehensive in-house energy program.
3. Energy Standards: Energy standards will be developed for the City that identify how buildings will be operated from an energy perspective.
4. Utility Load Shifting Programs: Utility companies are adjusting rate plans allocating more cost to demand (kW) and less cost to use (kWh). Midstate Energy, LLC. will work with the City of Sedona Sites to identify load shifting strategies to keep load below a desired maximum.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 2.0 - Technical Report

## Wastewater Operations: ECM 1 – Lighting

### Existing Lighting Conditions

Interior: 2nd generation 17W and 32W T8 fluorescent lamps and electronic ballasts. 13-26W compact fluorescent lamps in recessed can and pendants. Jelly jar fixtures have 60W incandescent lamps.

Exterior: 400W high pressure sodium in pole mounted fixtures. 50-70W high pressure sodium in wall packs.

### Lighting Upgrades Summary

Interior: Where applicable existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Install new 153W LED pole fixtures. Install new 21W LED wall packs.

**For more detailed specifications, please refer to Appendix A, ECM 1 - Lighting.**

# Section 2.0 - Technical Report

## Wastewater Operations: ECM 2 – Water

### Existing Water Conditions

A variety of different toilet and urinal fixture types were identified. The majority of toilet fixtures are designed at 1.6 gpf, but exhibited flush rates in excess of 3.0 gallons. All of the urinals identified are 1.0 gpf (small water spot) urinal fixtures with diaphragm valves. Many of the urinals exhibited flush rates in excess of 1.8 gallon due to degradation of diaphragm valve components. A variety of different faucet fixtures were identified during walkthroughs. The majority of faucets identified contained their original aerators exhibiting flow rates ranging from 2.0 gpm to 3.0 gpm.

### Water Upgrades Summary

The opportunities discovered and proposed for the City include: domestic plumbing improvements such as low-flow toilet and urinal retrofits/replacements, faucet retrofits/replacements, and showerhead replacements. Refer to the table below for site specific conservation measures.

PROPERTY	TOILET RETROFITS/ REPLACEMENTS	URINAL RETROFITS/ REPLACEMENTS	FAUCET RETROFITS/ REPLACEMENTS	SHOWERHEAD REPLACEMENTS
Wastewater Operations	4	0	1	1

For more detailed specifications, please refer to Appendix B, ECM 2 - Water.

# Section 2.0 - Technical Report

## Wastewater Operations: ECM 4 – Energy Management System

### Existing Energy Management System Conditions

The City is comprised of (RTU) rooftop air conditioning units and (S/S) split system units, controlled by a variety of digital thermostats. These thermostats provide access for occupants to make adjustments; however, they see need in acclimating the room, causing increases in energy consumption, while reducing the equipment life cycle.

### Energy Management System Upgrades Summary

Where applicable, provide and install new web based “open protocol” thermostat (Ecobee, Autani, or approved equal) for remote, mobile and tablet access (IT protected). Providing occ/unocc scheduling, unit efficiency control sequencing, with staggered startups for reducing power consumption. Controllers can be scheduled per user needs with allowing controlled access for setpoint adjust, via the wall mounted thermostat.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

# Section 2.0 - Technical Report

## Wastewater Operations: ECM 5 – Data Management

### Existing Data Management Conditions

There is currently no data management program in place at the site.

### Data Management Upgrades Summary

1. Utility Bill Analysis: MIDSTATE ENERGY, LLC will review the rate plan for each of your electric meters to determine whether or not you are on a rate plan that provides you with the lowest charges each month.
2. Fusebox Software: An energy management software, to compile, track and analyze utility data. This product can be used to help cities create their own comprehensive in-house energy program.
3. Energy Standards: Energy standards will be developed for the City that identify how buildings will be operated from an energy perspective.
4. Utility Load Shifting Programs: Utility companies are adjusting rate plans allocating more cost to demand (kW) and less cost to use (kWh). Midstate Energy, LLC. will work with the City of Sedona Sites to identify load shifting strategies to keep load below a desired maximum.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 2.0 - Technical Report

## Parks & Recreation: ECM 1 – Lighting

### Existing Lighting Conditions

Interior: 2nd generation 17W and 32W T8 fluorescent lamps and electronic ballasts. 13-26W compact fluorescent lamps in recessed can and pendants. Jelly jar fixtures have 60W incandescent lamps.

Exterior: 400W high pressure sodium in pole mounted fixtures. 50-70W high pressure sodium in wall packs.

### Lighting Upgrades Summary

Interior: Where applicable existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Install new 153W LED pole fixtures. Install new 21W LED wall packs.

**For more detailed specifications, please refer to Appendix A, ECM 1 - Lighting.**

# Section 2.0 - Technical Report

## Parks & Recreation: ECM 2 – Water

### Existing Water Conditions

A variety of different toilet and urinal fixture types were identified. The majority of toilet fixtures are designed at 1.6 gpf, but exhibited flush rates in excess of 3.0 gallons. All of the urinals identified are 1.0 gpf (small water spot) urinal fixtures with diaphragm valves. Many of the urinals exhibited flush rates in excess of 1.8 gallon due to degradation of diaphragm valve components. A variety of different faucet fixtures were identified during walkthroughs. The majority of faucets identified contained their original aerators exhibiting flow rates ranging from 2.0 gpm to 3.0 gpm.

### Water Upgrades Summary

The opportunities discovered and proposed for the City include: domestic plumbing improvements such as low-flow toilet and urinal retrofits/replacements, faucet retrofits/replacements, and showerhead replacements. Refer to the table below for site specific conservation measures.

PROPERTY	TOILET RETROFITS/ REPLACEMENTS	URINAL RETROFITS/ REPLACEMENTS	FAUCET RETROFITS/ REPLACEMENTS	SHOWERHEAD REPLACEMENTS
Parks & Recreation	2	0	2	0

For more detailed specifications, please refer to Appendix B, ECM 2 - Water.

# Section 2.0 - Technical Report

## Parks & Recreation: ECM 4 – Energy Management System

### Existing Energy Management System Conditions

The City is comprised of (RTU) rooftop air conditioning units and (S/S) split system units, controlled by a variety of digital thermostats. These thermostats provide access for occupants to make adjustments; however, they see need in acclimating the room, causing increases in energy consumption, while reducing the equipment life cycle.

### Energy Management System Upgrades Summary

Where applicable, provide and install new web based “open protocol” thermostat (Ecobee, Autani, or approved equal) for remote, mobile and tablet access (IT protected). Providing occ/unocc scheduling, unit efficiency control sequencing, with staggered startups for reducing power consumption. Controllers can be scheduled per user needs with allowing controlled access for setpoint adjust, via the wall mounted thermostat.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

# Section 2.0 - Technical Report

## Parks & Recreation: ECM 5 – Data Management

### Existing Data Management Conditions

There is currently no data management program in place at the site.

### Data Management Upgrades Summary

1. Utility Bill Analysis: MIDSTATE ENERGY, LLC will review the rate plan for each of your electric meters to determine whether or not you are on a rate plan that provides you with the lowest charges each month.
2. Fusebox Software: An energy management software, to compile, track and analyze utility data. This product can be used to help cities create their own comprehensive in-house energy program.
3. Energy Standards: Energy standards will be developed for the City that identify how buildings will be operated from an energy perspective.
4. Utility Load Shifting Programs: Utility companies are adjusting rate plans allocating more cost to demand (kW) and less cost to use (kWh). Midstate Energy, LLC. will work with the City of Sedona Sites to identify load shifting strategies to keep load below a desired maximum.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 2.0 - Technical Report

## Police Department: ECM 1 – Lighting

### Existing Lighting Conditions

Interior: 2nd generation 17W and 32W T8 fluorescent lamps and electronic ballasts. 13-26W compact fluorescent lamps in recessed can and pendants. Jelly jar fixtures have 60W incandescent lamps.

Exterior: 400W high pressure sodium in pole mounted fixtures. 50-70W high pressure sodium in wall packs.

### Lighting Upgrades Summary

Interior: Where applicable existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Install new 153W LED pole fixtures. Install new 21W LED wall packs.

**For more detailed specifications, please refer to Appendix A, ECM 1 - Lighting.**

# Section 2.0 - Technical Report

## Police Department: ECM 2 – Water

### Existing Water Conditions

A variety of different toilet and urinal fixture types were identified. The majority of toilet fixtures are designed at 1.6 gpf, but exhibited flush rates in excess of 3.0 gallons. All of the urinals identified are 1.0 gpf (small water spot) urinal fixtures with diaphragm valves. Many of the urinals exhibited flush rates in excess of 1.8 gallon due to degradation of diaphragm valve components. A variety of different faucet fixtures were identified during walkthroughs. The majority of faucets identified contained their original aerators exhibiting flow rates ranging from 2.0 gpm to 3.0 gpm.

### Water Upgrades Summary

The opportunities discovered and proposed for the City include: domestic plumbing improvements such as low-flow toilet and urinal retrofits/replacements, faucet retrofits/replacements, and showerhead replacements. Refer to the table below for site specific conservation measures.

PROPERTY	TOILET RETROFITS/ REPLACEMENTS	URINAL RETROFITS/ REPLACEMENTS	FAUCET RETROFITS/ REPLACEMENTS	SHOWERHEAD REPLACEMENTS
Police Department	12	4	6	2

**For more detailed specifications, please refer to Appendix B, ECM 2 - Water.**

# Section 2.0 - Technical Report

## Police Department: ECM 4 – Energy Management System

### Existing Energy Management System Conditions

The City is comprised of (RTU) rooftop air conditioning units and (S/S) split system units, controlled by a variety of digital thermostats. These thermostats provide access for occupants to make adjustments; however, they see need in acclimating the room, causing increases in energy consumption, while reducing the equipment life cycle.

### Energy Management System Upgrades Summary

Where applicable, provide and install new web based “open protocol” thermostat (Ecobee, Autani, or approved equal) for remote, mobile and tablet access (IT protected). Providing occ/unocc scheduling, unit efficiency control sequencing, with staggered startups for reducing power consumption. Controllers can be scheduled per user needs with allowing controlled access for setpoint adjust, via the wall mounted thermostat.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

# Section 2.0 - Technical Report

## Police Department: ECM 5 – Data Management

### Existing Data Management Conditions

There is currently no data management program in place at the site.

### Data Management Upgrades Summary

1. Utility Bill Analysis: MIDSTATE ENERGY, LLC will review the rate plan for each of your electric meters to determine whether or not you are on a rate plan that provides you with the lowest charges each month.
2. Fusebox Software: An energy management software, to compile, track and analyze utility data. This product can be used to help cities create their own comprehensive in-house energy program.
3. Energy Standards: Energy standards will be developed for the City that identify how buildings will be operated from an energy perspective.
4. Utility Load Shifting Programs: Utility companies are adjusting rate plans allocating more cost to demand (kW) and less cost to use (kWh). Midstate Energy, LLC. will work with the City of Sedona Sites to identify load shifting strategies to keep load below a desired maximum.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 2.0 - Technical Report

## City Administration: ECM 1 – Lighting

### Existing Lighting Conditions

Interior: 2nd generation 17W and 32W T8 fluorescent lamps and electronic ballasts. 13-26W compact fluorescent lamps in recessed can and pendants. Jelly jar fixtures have 60W incandescent lamps.

Exterior: 400W high pressure sodium in pole mounted fixtures. 50-70W high pressure sodium in wall packs.

### Lighting Upgrades Summary

Interior: Where applicable existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Install new 153W LED pole fixtures. Install new 21W LED wall packs.

**For more detailed specifications, please refer to Appendix A, ECM 1 - Lighting.**

# Section 2.0 - Technical Report

## City Administration: ECM 2 – Water

### Existing Water Conditions

A variety of different toilet and urinal fixture types were identified. The majority of toilet fixtures are designed at 1.6 gpf, but exhibited flush rates in excess of 3.0 gallons. All of the urinals identified are 1.0 gpf (small water spot) urinal fixtures with diaphragm valves. Many of the urinals exhibited flush rates in excess of 1.8 gallon due to degradation of diaphragm valve components. A variety of different faucet fixtures were identified during walkthroughs. The majority of faucets identified contained their original aerators exhibiting flow rates ranging from 2.0 gpm to 3.0 gpm.

### Water Upgrades Summary

The opportunities discovered and proposed for the City include: domestic plumbing improvements such as low-flow toilet and urinal retrofits/replacements, faucet retrofits/replacements, and showerhead replacements. Refer to the table below for site specific conservation measures.

PROPERTY	TOILET RETROFITS/REPLACEMENTS	URINAL RETROFITS/REPLACEMENTS	FAUCET RETROFITS/REPLACEMENTS	SHOWERHEAD REPLACEMENTS
City Administration	3	0	3	0

For more detailed specifications, please refer to Appendix B, ECM 2 - Water.

# Section 2.0 - Technical Report

## City Administration: ECM 3 – HVAC

### Existing HVAC Conditions

This city site currently utilizes packaged roof top gas pack, DX cooling units. Four of the units are 5-ton and manufactured by RUUD. Three of those units were installed over 20 years ago and one was installed eight years ago. While the units were serviced regularly, they are at the end of their useful life and are recommended to be replaced with high efficiency units.

### HVAC Upgrades Summary

Remove and replace five total units with new high efficiency units. Provide proper fresh air amounts in accordance with local codes and standards. SEER ratings are to match or exceed utility rebate qualifications. Immediately follow contract execution a full set of Product submittals will be provided for review and approval of the district. Installation schedule and location to be set by the City.

Budgeted manufacture of above equipment is RUUD.

PROPERTY NAME	TON UNITS							Total units
	1-3	3.5 - 5	6	7.5, 8.5, 10	12.5	15	17.5	
City Administration	0	4	0	0	0	0	0	4

**For more detailed specifications, please refer to Appendix C, ECM 3 - HVAC.**

# Section 2.0 - Technical Report

## City Administration: ECM 4 – Energy Management System

### Existing Energy Management System Conditions

The City is comprised of (RTU) rooftop air conditioning units and (S/S) split system units, controlled by a variety of digital thermostats. These thermostats provide access for occupants to make adjustments; however, they see need in acclimating the room, causing increases in energy consumption, while reducing the equipment life cycle.

### Energy Management System Upgrades Summary

Where applicable, provide and install new web based “open protocol” thermostat (Ecobee, Autani, or approved equal) for remote, mobile and tablet access (IT protected). Providing occ/unocc scheduling, unit efficiency control sequencing, with staggered startups for reducing power consumption. Controllers can be scheduled per user needs with allowing controlled access for setpoint adjust, via the wall mounted thermostat.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

# Section 2.0 - Technical Report

## City Administration: ECM 5 – Data Management

### Existing Data Management Conditions

There is currently no data management program in place at the site.

### Data Management Upgrades Summary

1. Utility Bill Analysis: MIDSTATE ENERGY, LLC will review the rate plan for each of your electric meters to determine whether or not you are on a rate plan that provides you with the lowest charges each month.
2. Fusebox Software: An energy management software, to compile, track and analyze utility data. This product can be used to help cities create their own comprehensive in-house energy program.
3. Energy Standards: Energy standards will be developed for the City that identify how buildings will be operated from an energy perspective.
4. Utility Load Shifting Programs: Utility companies are adjusting rate plans allocating more cost to demand (kW) and less cost to use (kWh). Midstate Energy, LLC. will work with the City of Sedona Sites to identify load shifting strategies to keep load below a desired maximum.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 2.0 - Technical Report

## Community Development: ECM 1 – Lighting

### Existing Lighting Conditions

Interior: 2nd generation 17W and 32W T8 fluorescent lamps and electronic ballasts. 13-26W compact fluorescent lamps in recessed can and pendants. Jelly jar fixtures have 60W incandescent lamps.

Exterior: 400W high pressure sodium in pole mounted fixtures. 50-70W high pressure sodium in wall packs.

### Lighting Upgrades Summary

Interior: Where applicable existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Install new 153W LED pole fixtures. Install new 21W LED wall packs.

**For more detailed specifications, please refer to Appendix A, ECM 1 - Lighting.**

# Section 2.0 - Technical Report

## Community Development: ECM 2 – Water

### Existing Water Conditions

A variety of different toilet and urinal fixture types were identified. The majority of toilet fixtures are designed at 1.6 gpf, but exhibited flush rates in excess of 3.0 gallons. All of the urinals identified are 1.0 gpf (small water spot) urinal fixtures with diaphragm valves. Many of the urinals exhibited flush rates in excess of 1.8 gallon due to degradation of diaphragm valve components. A variety of different faucet fixtures were identified during walkthroughs. The majority of faucets identified contained their original aerators exhibiting flow rates ranging from 2.0 gpm to 3.0 gpm.

### Water Upgrades Summary

The opportunities discovered and proposed for the City include: domestic plumbing improvements such as low-flow toilet and urinal retrofits/replacements, faucet retrofits/replacements, and showerhead replacements. Refer to the table below for site specific conservation measures.

PROPERTY	TOILET RETROFITS/REPLACEMENTS	URINAL RETROFITS/REPLACEMENTS	FAUCET RETROFITS/REPLACEMENTS	SHOWERHEAD REPLACEMENTS
Community Development	8	0	6	0

For more detailed specifications, please refer to Appendix B, ECM 2 - Water.

# Section 2.0 - Technical Report

## Community Development: ECM 4 – Energy Management System

### Existing Energy Management System Conditions

The City is comprised of (RTU) rooftop air conditioning units and (S/S) split system units, controlled by a variety of digital thermostats. These thermostats provide access for occupants to make adjustments; however, they see need in acclimating the room, causing increases in energy consumption, while reducing the equipment life cycle.

### Energy Management System Upgrades Summary

Where applicable, provide and install new web based “open protocol” thermostat (Ecobee, Autani, or approved equal) for remote, mobile and tablet access (IT protected). Providing occ/unocc scheduling, unit efficiency control sequencing, with staggered startups for reducing power consumption. Controllers can be scheduled per user needs with allowing controlled access for setpoint adjust, via the wall mounted thermostat.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

# Section 2.0 - Technical Report

## Community Development: ECM 5 – Data Management

### Existing Data Management Conditions

There is currently no data management program in place at the site.

### Data Management Upgrades Summary

1. Utility Bill Analysis: MIDSTATE ENERGY, LLC will review the rate plan for each of your electric meters to determine whether or not you are on a rate plan that provides you with the lowest charges each month.
2. Fusebox Software: An energy management software, to compile, track and analyze utility data. This product can be used to help cities create their own comprehensive in-house energy program.
3. Energy Standards: Energy standards will be developed for the City that identify how buildings will be operated from an energy perspective.
4. Utility Load Shifting Programs: Utility companies are adjusting rate plans allocating more cost to demand (kW) and less cost to use (kWh). Midstate Energy, LLC. will work with the City of Sedona Sites to identify load shifting strategies to keep load below a desired maximum.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 2.0 - Technical Report

## Courthouse: ECM 1 – Lighting

### Existing Lighting Conditions

Interior: 2nd generation 17W and 32W T8 fluorescent lamps and electronic ballasts. 13-26W compact fluorescent lamps in recessed can and pendants. Jelly jar fixtures have 60W incandescent lamps.

Exterior: 400W high pressure sodium in pole mounted fixtures. 50-70W high pressure sodium in wall packs.

### Lighting Upgrades Summary

Interior: Where applicable existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Install new 153W LED pole fixtures. Install new 21W LED wall packs.

**For more detailed specifications, please refer to Appendix A, ECM 1 - Lighting.**

# Section 2.0 - Technical Report

## Courthouse: ECM 2 – Water

### Existing Water Conditions

A variety of different toilet and urinal fixture types were identified. The majority of toilet fixtures are designed at 1.6 gpf, but exhibited flush rates in excess of 3.0 gallons. All of the urinals identified are 1.0 gpf (small water spot) urinal fixtures with diaphragm valves. Many of the urinals exhibited flush rates in excess of 1.8 gallon due to degradation of diaphragm valve components. A variety of different faucet fixtures were identified during walkthroughs. The majority of faucets identified contained their original aerators exhibiting flow rates ranging from 2.0 gpm to 3.0 gpm.

### Water Upgrades Summary

The opportunities discovered and proposed for the City include: domestic plumbing improvements such as low-flow toilet and urinal retrofits/replacements, faucet retrofits/replacements, and showerhead replacements. Refer to the table below for site specific conservation measures.

PROPERTY	TOILET RETROFITS/ REPLACEMENTS	URINAL RETROFITS/ REPLACEMENTS	FAUCET RETROFITS/ REPLACEMENTS	SHOWERHEAD REPLACEMENTS
Courthouse	18	4	8	0

For more detailed specifications, please refer to Appendix B, ECM 2 - Water.

# Section 2.0 - Technical Report

## Courthouse: ECM 3 – HVAC

### Existing HVAC Conditions

This city site currently utilizes packaged roof top gas pack, DX cooling units and heat pumps. Three of the 5-ton, one of the 4-ton, and one of the 3.5-ton units was manufactured by RUUD and installed between 12 and over 20 years ago. While the units were serviced regularly, they are close to or at the end of their useful life and are recommended to be replaced with high efficiency units.

### HVAC Upgrades Summary

Remove and replace four total units with new high efficiency units. Provide proper fresh air amounts in accordance with local codes and standards. SEER ratings are to match or exceed utility rebate qualifications. Immediately follow contract execution a full set of Product submittals will be provided for review and approval of the district. Installation schedule and location to be set by the City.

Budgeted manufacture of above equipment is RUUD.

PROPERTY NAME	TON UNITS							Total units
	1-3	3.5 - 5	6	7.5, 8.5, 10	12.5	15	17.5	
Courthouse	0	6	0	0	0	0	0	6

For more detailed specifications, please refer to Appendix C, ECM 3 - HVAC.

# Section 2.0 - Technical Report

## Courthouse: ECM 4 – Energy Management System

### Existing Energy Management System Conditions

The City is comprised of (RTU) rooftop air conditioning units and (S/S) split system units, controlled by a variety of digital thermostats. These thermostats provide access for occupants to make adjustments; however, they see need in acclimating the room, causing increases in energy consumption, while reducing the equipment life cycle.

### Energy Management System Upgrades Summary

Where applicable, provide and install new web based “open protocol” thermostat (Ecobee, Autani, or approved equal) for remote, mobile and tablet access (IT protected). Providing occ/unocc scheduling, unit efficiency control sequencing, with staggered startups for reducing power consumption. Controllers can be scheduled per user needs with allowing controlled access for setpoint adjust, via the wall mounted thermostat.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

# Section 2.0 - Technical Report

## Courthouse: ECM 5 – Data Management

### Existing Data Management Conditions

There is currently no data management program in place at the site.

### Data Management Upgrades Summary

1. Utility Bill Analysis: MIDSTATE ENERGY, LLC will review the rate plan for each of your electric meters to determine whether or not you are on a rate plan that provides you with the lowest charges each month.
2. Fusebox Software: An energy management software, to compile, track and analyze utility data. This product can be used to help cities create their own comprehensive in-house energy program.
3. Energy Standards: Energy standards will be developed for the City that identify how buildings will be operated from an energy perspective.
4. Utility Load Shifting Programs: Utility companies are adjusting rate plans allocating more cost to demand (kW) and less cost to use (kWh). Midstate Energy, LLC. will work with the City of Sedona Sites to identify load shifting strategies to keep load below a desired maximum.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 2.0 - Technical Report

## IT/Legal/Public Works: ECM 1 – Lighting

### Existing Lighting Conditions

Interior: 2nd generation 17W and 32W T8 fluorescent lamps and electronic ballasts. 13-26W compact fluorescent lamps in recessed can and pendants. Jelly jar fixtures have 60W incandescent lamps.

Exterior: 400W high pressure sodium in pole mounted fixtures. 50-70W high pressure sodium in wall packs.

### Lighting Upgrades Summary

Interior: Where applicable existing T8 lighting would be retrofitted with new 7W and 10W LED lamps and LED drivers. Jelly jar fixtures would be re-lamped with 9.5W LED lamps. Compact fluorescent lamps would be retrofitted to 8.5W – 10.5W LED lamps.

Exterior: Install new 153W LED pole fixtures. Install new 21W LED wall packs.

**For more detailed specifications, please refer to Appendix A, ECM 1 - Lighting.**

# Section 2.0 - Technical Report

## IT/Legal/Public Works: ECM 2 – Water

### Existing Water Conditions

A variety of different toilet and urinal fixture types were identified. The majority of toilet fixtures are designed at 1.6 gpf, but exhibited flush rates in excess of 3.0 gallons. All of the urinals identified are 1.0 gpf (small water spot) urinal fixtures with diaphragm valves. Many of the urinals exhibited flush rates in excess of 1.8 gallon due to degradation of diaphragm valve components. A variety of different faucet fixtures were identified during walkthroughs. The majority of faucets identified contained their original aerators exhibiting flow rates ranging from 2.0 gpm to 3.0 gpm.

### Water Upgrades Summary

The opportunities discovered and proposed for the City include: domestic plumbing improvements such as low-flow toilet and urinal retrofits/replacements, faucet retrofits/replacements, and showerhead replacements. Refer to the table below for site specific conservation measures.

PROPERTY	TOILET RETROFITS/ REPLACEMENTS	URINAL RETROFITS/ REPLACEMENTS	FAUCET RETROFITS/ REPLACEMENTS	SHOWERHEAD REPLACEMENTS
IT/Legal/Public Works	3	0	3	0

For more detailed specifications, please refer to Appendix B, ECM 2 - Water.

# Section 2.0 - Technical Report

## IT/Legal/Public Works: ECM 4 – Energy Management System

### **Existing Energy Management System Conditions**

The City is comprised of (RTU) rooftop air conditioning units and (S/S) split system units, controlled by a variety of digital thermostats. These thermostats provide access for occupants to make adjustments; however, they see need in acclimating the room, causing increases in energy consumption, while reducing the equipment life cycle.

### **Energy Management System Upgrades Summary**

Where applicable, provide and install new web based “open protocol” thermostat (Ecobee, Autani, or approved equal) for remote, mobile and tablet access (IT protected). Providing occ/unocc scheduling, unit efficiency control sequencing, with staggered startups for reducing power consumption. Controllers can be scheduled per user needs with allowing controlled access for setpoint adjust, via the wall mounted thermostat.

**For more detailed specifications, please refer to Appendix D, ECM 4 – Energy Management System.**

# Section 2.0 - Technical Report

## IT/Legal/Public Works:

### ECM 5 – Data Management

#### Existing Data Management Conditions

There is currently no data management program in place at the site.

#### Data Management Upgrades Summary

1. Utility Bill Analysis: MIDSTATE ENERGY, LLC will review the rate plan for each of your electric meters to determine whether or not you are on a rate plan that provides you with the lowest charges each month.
2. Fusebox Software: An energy management software, to compile, track and analyze utility data. This product can be used to help cities create their own comprehensive in-house energy program.
3. Energy Standards: Energy standards will be developed for the City that identify how buildings will be operated from an energy perspective.
4. Utility Load Shifting Programs: Utility companies are adjusting rate plans allocating more cost to demand (kW) and less cost to use (kWh). Midstate Energy, LLC. will work with the City of Sedona Sites to identify load shifting strategies to keep load below a desired maximum.

**For more detailed specifications, please refer to Appendix E, ECM 5 – Data Management.**

# Section 2.0 - Technical Report

## WARRANTY

Midstate Energy, LLC. warrants that the design, engineering and installation services it performs will be performed consistent with good engineering practices and that such work is warranted to be free from defects in materials and workmanship for a period of one year from the date of execution of the Delivery and Acceptance Certificate by the Customer with respect to substantial Completion. Any manufacturer’s warranties which exceed this one-year period shall be assigned to Customer to the extent allowed by the manufacturer.

Customer may purchase extended warranty coverage for any equipment installed under this Agreement as long as the annual cost of the project inclusive of the extended warranty coverage does not exceed the guarantees savings value should this agreement be subject to rules or laws requiring annual savings to exceed annual costs.

#	ENERGY CONSERVATION MEASURE (ECM)	WARRANTY LENGTH		
		1 Year	5 Year	10 Year
1	Lighting	<ul style="list-style-type: none"> <li>• Compact Fluorescent Lamps (CFL)</li> </ul>	<ul style="list-style-type: none"> <li>• Non-Linear LED Lamps and LED Luminaries</li> <li>• Occupancy sensors and power packs</li> </ul>	<ul style="list-style-type: none"> <li>• Linear LED lamp and electronic LED driver</li> </ul>
2	Water	<ul style="list-style-type: none"> <li>• Full Labor and Material</li> </ul>		
3	HVAC		<ul style="list-style-type: none"> <li>• Manufactures warranty of Compressors</li> </ul>	
4	Energy Management System	<ul style="list-style-type: none"> <li>• Full Labor and Material</li> </ul>		
5	Data Management	<ul style="list-style-type: none"> <li>• Full Labor and Material</li> </ul>		

## OWNER RESPONSIBILITY

Midstate Energy will pass to the customer the manufacturers provided warranty. The customer shall have the following responsibilities during the warranty period:

1. Contacting the manufacturer to report product failures and to schedule manufacturer replacement of that product and possible request of RMA (Return Material Authorization) of failed product.

## Section 2.0 - Technical Report

2. Properly storing any removed failed material until manufacturer's response to customer warranty request is processed and manufacturer determines if an RMA will or will not be required for failed material to be sent back to manufacturer.
3. Provide labor, equipment and incidental material in failed product replacement.
4. Replace failed product to manufacturer's specifications and to comply with NEC regulations to ensure remaining warranty period compliance.

This warranty does not extend to cover any insurable loss or damage, nor to cover ordinary wear, abuse or neglect. During the warranty period, either the Tenant, Owner or the General Contractor may initiate warranty service.

# Section 3.0 – Baseline Development

## BASELINE ANALYSIS

Utility baselines summarize how much energy and cost a building has previously used over a specified period of time (or baseline period). Taking multiple years into account to create allows to establish a, the utility baseline is then the two or three-year average of the entire baseline period so that a baseline will not be over or under stated due to yearly anomalies such as extreme weather, irregular building usage, or broken equipment. Important factors including blended rates and benchmarking data are taken directly from the utility baseline.

## BASELINE DEVELOPMENT PROCESS

Utility data is gathered directly from utility billing information and provides details needed such as efficiencies, usage anomalies and the framework for maximum achievable savings. Once the baseline period is established and the data is gathered, an average consumption over that period is taken to establish consumption, cost and average blended rates.

If utility bills are found to be missing during particular time periods or sites, an effort is made to contact the City and local utility company in order to obtain a record of those bills. If an official bill or statement cannot be obtained for a single month, historical data from that time period or an average for the month will be used to fill that data. Billing anomalies are investigated and treated as outliers when deemed necessary.

Once the utility data was reviewed, it was entered into a spreadsheet where a detailed analysis of the energy bills was performed. The analysis helps to identify opportunities for savings, develop performance metrics for each utility and establish a disaggregated consumption end-use as a basis to calculate energy savings. Additional items provided by this analysis include:

1. Peak energy usage periods
2. Base loads
3. Typical energy usage patterns and anomalies
4. Baseline disaggregation
5. Load factors
6. Blended utility rates

Unusual energy use can point out previously unknown wastes and opportunities for further savings. The total amount spent provided savings benchmarks that allow comparison with other cities and was used to provide savings ceilings so conservative energy savings can be established.

# Section 3.0 – Baseline Development

Once a final proposed scope of ECMs are developed, the baseline is refined by removing data that will not be directly affected by conservation efforts. This data can range from removing an entire billing account and associated meter to just removing a subsection from a single bill such as irrigation usage and cost. A list of utility accounts and meters accounted for in the baseline can be found below.

## **BASELINE PERIOD**

The baseline period chosen for the basis of this audit is a three-year period of 2014-2016.

## **TOTAL UTILITY EXPENDITURE**

The average annual electrical energy costs for the sites reviewed totaled \$681,803, as can be seen in table below.

# Section 3.0 – Baseline Development

## UTILITY BASELINE

The utility baseline used to calculate cost avoidance for the eight sites totaled \$681,803. Only meters that are to be affected have been used in this total. The tables below provide breakouts of the total utility consumption and cost for each site.

#	PROPERTY NAME	ELECTRIC		WATER		PROPANE/GAS		Totals (\$)
		Total Usage (kVWh)	Total Cost (\$)	Total Usage (kgals)	Total Cost (\$)	Total Usage (therm)	Total Cost (\$)	
1	Wastewater Administration	45760	\$8,551	163.8	\$1,571	0	\$0	\$10,123
2	Wastewater Operations	2094837	\$391,465	0	\$0	0	\$0	\$391,465
3	Parks & Recreation	129515	\$24,203	11352.7	\$108,904	1613	\$1,861	\$134,967
4	Police Department	28480	\$5,322	48	\$460	1004	\$1,158	\$6,941
5	City Administration	173023	\$32,333	27.2	\$261	954	\$1,101	\$33,695
6	Community Development	203643	\$38,055	53.5	\$513	1322	\$1,525	\$40,093
7	Courthouse	34760	\$6,496	21.2	\$203	2762	\$3,186	\$9,885
8	IT/Legal/Public Works	122084	\$22,814	3178	\$30,486	1157	\$1,335	\$54,635
	<b>Total</b>	2,832,102	\$529,238	14,844	\$142,399	8,812	\$10,166	\$681,803

# Section 3.0 – Baseline Development

## RATE ESCALATION

Historically, the long run cost of utilities has generally risen year-over-year and can be factually supported based on the projections supplied by both the U.S. Department of Energy and historical billing. It is not possible to predict and model the exact year-to-year change in utility rate, but an average 2.0% increase has been used as an industry standard to project cost avoidance and is typically conservative when compared to the Consumer Price Index (CPI).

To capture the effect of increasing prices, the following agreed upon escalation rates shown in table below have been used to calculate cost avoidance:

PROPERTY NAME	ELECTRIC (\$/kWh)	NATURAL GAS (\$/Therm)	WATER & SEWER (\$/kgal)
All Sites	2.0%	2.0%	2.0%

# Section 4.0 – Energy Calculations

## SUMMARY

Energy calculations were performed using a combination of spread sheet analysis and in accordance with practices and principals instilled by the Association of Energy Engineers. Savings calculations are based on yearly data and assumptions therefore, the below energy savings are calculated on an annual not monthly basis. The total savings calculated are as follows:

ENERGY STUDY				
#	ENERGY CONSERVATION MEASURE (ECM)	CALCULATION METHOD	WATER SAVINGS (kgal)	ENERGY SAVINGS (kWh)
1	Lighting Savings	Excel (Midstate Energy)		101,027
2	Water Savings	Excel (Water Savings)	888	1,777
3	HVAC Savings	Excel (Midstate Energy)		141,818
4	Energy Management System Savings	Excel (Midstate Energy)		20,282
5	Data Management Savings	Excel (Midstate Energy)		37,273
<b>PROJECT TOTAL</b>			888	302,177

The parameters used for savings calculations were taken directly from site data collected during facility audits, manufacturer’s data on old and new equipment and engineering principles. The aforementioned energy savings calculated were compared against a disaggregation of the baseline to establish reasonableness of calculated savings and for verification of assumptions.

Climatic changes were characterized by use of degree days for both heating and cooling at a reference point of 65°F. Weather data was taken from the National Oceanic and Atmospheric Administration (NOAA), ASHRAE, and other public organizations. A description of the approach and key parameters utilized in the general savings calculations are found below in the following ECM calculation descriptions.

# Section 4.0 – Energy Calculations

## LIGHTING

### LAMP AND BALLAST REPLACEMENT

The savings calculations associated for this measure takes into account wattage reductions, cooling credits, and heating penalties resulting from lamp and ballast replacements. The primary savings calculation depends on the difference in power (kW) between the old and new lamp and ballasts combinations. Run time hours are fixed and assigned to each fixture for both existing and proposed fixtures. Site surveys were conducted to collect existing fixture information, total fixtures and kW per fixture. These results and savings calculations are detailed within the room-by-room audit in Appendix A, stipulated at 3,120 hours for interior lighting, and 4380 hours for exterior lighting. The assigned hours are based off of discussions with City staff. Data logging can be performed but was not performed due to the exercise being cost prohibitive.

Cooling credits and heating penalties are the secondary part of the savings calculations that captures the change in the building's internal heat gain resulting from the heat output that comes from the lamp generating the light. The more efficient lamps not only use less energy but they also put out less heat into the space. In the summer, the result is called a "cooling credit" because there is less heat that must be removed from the space which helps save energy and is now credited or accounted for as a savings. In the winter, the result is called a "heating penalty" and now the HVAC system has to account for the heat that was generated from the lights. The size of the credit or penalty depends on factors such as interior electricity saved, fraction of building area exposed to the building perimeter, efficiencies of the HVAC system, and climatic factors such as fraction of light heat to cooling or heating.

# Section 4.0 – Energy Calculations

## UNITARY EQUIPMENT

The savings calculations associated for this measure takes annual electric energy savings from an efficiency difference between the old and new units. Existing equipment data was captured during site surveys for the effected mechanical data. Parameters and assumptions for this calculation include:

TONS	EXISTING EER	EXISTING SEER	EXISTING COP	NEW EER	NEW SEER	NEW COP
3.5		10.5			14.0	
4		10.5			14.0	
5		9.9			14.0	

The methodology for calculating energy savings uses the existing and new SEER and COP ratings to establish a percent reduction in cooling and heating usage respectively.

# Section 4.0 – Energy Calculations

## ASSUMPTIONS USED IN THE ENERGY CALCULATIONS

The following assumptions have been used by Midstate Energy, LLC. in the determination of the energy savings calculations. These are the same assumptions that will be carried forward into the M & V process to determine performance period savings each year. The assumptions below were used in part of the energy analysis and any variation from this baseline assumption is at risk for Midstate Energy, LLC and shall not affect the savings guaranteed.

### LIGHTING

- 3120 run time hours per year for interior fixtures
- 4380 run time hours per year for external fixtures, dusk to dawn each day

# Section 5.0 – Project Proforma

## PROJECT PROFORMA

Project Total	Owner Contribution	Financed Amount	Total First Year Savings	Potential Rebates*	Total First Year Benefits	Payback
\$371,998	\$0	\$371,998	\$38,641	\$0	\$38,641	9.6

\* Rebates are estimated in conjunction with the utility provider and are not guaranteed.



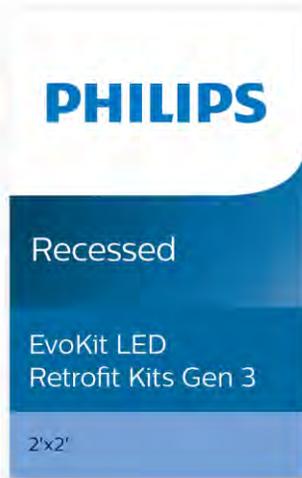


# Section 6.0 – Appendix A – Lighting

Site Data		Site Data		Site Data		Existing		Existing		Existing		Proposed		Proposed	
Property	Building	Exterior	Location	Existing Fixture Type	Lamp Count	Balast Count	Existing Material	Total Fixtures	EM Ballast	Proposed Material	Sensor	Total Sensors			
BUILDING 100 (POLICE)	100 POLICE	NO	BREAK ROOM	2M 3L DCP 2L DE-LAMPED 32W TB	2	1	32W TB	4		IDRIVER 2AMP T8 10W LEDTUBE +DE-LAMPING					
BUILDING 100 (POLICE)	100 POLICE	NO	WALL	2M 3L DCP 2L DE-LAMPED 32W TB	2	1	32W TB	4		IDRIVER 2AMP T8 10W LEDTUBE +DE-LAMPING					
BUILDING 100 (POLICE)	100 POLICE	NO	HALL	1M 3L REC TROFFER 32W TB	3	1	32W TB	4		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	HQ/DIG CELL	1M 3L REC TROFFER 32W TB	3	1	32W TB	4		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	2M 3L DCP 2L DE-LAMPED 32W TB	2	1	32W TB	4		IDRIVER 2AMP T8 10W LEDTUBE +DE-LAMPING					
BUILDING 100 (POLICE)	100 POLICE	NO	HALL	4FT 4L WRAP 32W TB	4	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	ANIMAL CONTROL	2M 3L DCP 2L DE-LAMPED 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE +DE-LAMPING					
BUILDING 100 (POLICE)	100 POLICE	NO	VOLUNTEERS	2M 3L DCP 2L DE-LAMPED 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE +DE-LAMPING					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	2M 3L DCP 2L DE-LAMPED 32W TB	2	1	32W TB	6		IDRIVER 2AMP T8 10W LEDTUBE +DE-LAMPING					
BUILDING 100 (POLICE)	100 POLICE	NO	ARMORY	2M 3L DCP 2L DE-LAMPED 32W TB	3	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	STAIRS	CAN LIGHT LED	1	1	LED	3		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	LANDING	2M 2L REC TROFFER 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	EVIDENCE	2M 3L REC TROFFER 32W TB	3	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	C	2L CANOPY 40W PUL BXA	2	1	40W PUL BXA	1		RAB VANLED20					
BUILDING 100 (POLICE)	100 POLICE	NO	IT'S	4FT 2L WRAP 32W TB	2	1	32W TB	1		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	BIOPARD	4FT 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	BIOPARD	4FT 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	BOOKING	2M 4L REC TROFFER 32W TB	4	1	32W TB	3		IDRIVER 4AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	CELL 1	2FT 2L CANOPY 17W TB	2	1	2FT 17W TB	1		RAB VANLED20					
BUILDING 100 (POLICE)	100 POLICE	NO	CELL 2	2FT 2L CANOPY 17W TB	2	1	2FT 17W TB	1		RAB VANLED20					
BUILDING 100 (POLICE)	100 POLICE	NO	CELL 3	2FT 2L CANOPY 17W TB	2	1	2FT 17W TB	1		RAB VANLED20					
BUILDING 100 (POLICE)	100 POLICE	NO	CELL 4	2L CANOPY 40W PUL BXA	2	1	40W PUL BXA	1		RAB VANLED20					
BUILDING 100 (POLICE)	100 POLICE	NO	CELL 5	2FT 2L CANOPY 17W TB	2	1	2FT 17W TB	1		RAB VANLED20					
BUILDING 100 (POLICE)	100 POLICE	NO	WEIGHTS	4FT 2L VAPOR TIGHT 32W TB	2	1	32W TB	4		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	102 WORK	2M 2L REC TROFFER 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	ARMORY	2M 2L REC TROFFER 32W TB	2	1	32W TB	3		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	GARAGE	4FT 2L STRIP 28W TB	2	1	28W TB	30		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	GARAGE	4FT 2L VAPOR TIGHT 32W TB	2	1	32W TB	3		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	4FT 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	4FT 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	COFFEE	4FT 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	KITCHEN	4FT 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	STORAGE	2FT 2L WRAP 17W TB	2	1	2FT 17W TB	1		RAB VANLED20					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	4FT 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	4FT 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	RESTROOM	4FT 4L WRAP 40W T12	4	1	40W T12	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	RESTROOM	4L VANITY 60W A19	4	1	60W A19	2		4L PHILIPS A19 04687746488					
BUILDING 100 (POLICE)	100 POLICE	NO	RESTROOM	4FT 4L WRAP 40W T12	4	1	40W T12	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	CHEMICAL STORAGE	4FT 4L WRAP 40W T12	4	1	40W T12	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	STORAGE	7-RND CAN 13W CFL SI	1	1	13W CFL SI	3		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	JANITORIAL STORAGE	7-RND CAN 13W CFL SI	1	1	13W CFL SI	1		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	2M 2L DCP 40W PUL BXA	2	1	40W PUL BXA	4		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	2M 2L DCP 40W PUL BXA	2	1	40W PUL BXA	4		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	OPEN AREA	2M 2L DCP 40W PUL BXA	2	1	40W PUL BXA	18		2L GC-17FLU840DR					
BUILDING 100 (POLICE)	100 POLICE	NO	OPEN AREA	8-RND CAN 2L 13W CFL 2P/H	2	1	13W CFL 2P/H	1		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	DF	2M 2L DCP 40W PUL BXA	2	1	40W PUL BXA	2		2L GC-17FLU840DR					
BUILDING 100 (POLICE)	100 POLICE	NO	HALL	DECORATIVE WP 2L 13W CFL 2P/H	2	1	13W CFL 2P/H	5		2L LUNERA HNHG2305W840G4					
BUILDING 100 (POLICE)	100 POLICE	NO	BREAK ROOM	2M 2L DCP 40W PUL BXA	2	1	40W PUL BXA	10		2L GC-17FLU840DR					
BUILDING 100 (POLICE)	100 POLICE	NO	MENS RR	4FT 2L WRAP 32W TB	2	1	32W TB	1		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	MENS RR	8-RND CAN 2L 13W CFL 2P/H	2	1	13W CFL 2P/H	1		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	WOMENS RR	4FT 2L WRAP 32W TB	2	1	32W TB	1		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	WOMENS RR	4FT 2L WRAP 32W TB	2	1	32W TB	1		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	ENTRANCE 2	8-RND CAN 2L 13W CFL 2P/H	2	1	13W CFL 2P/H	4		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	ENTRANCE 2	8-RND CAN 2L 13W CFL 2P/H	2	1	13W CFL 2P/H	2		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	BIOPARD	2M 2L DCP 40W PUL BXA	2	1	40W PUL BXA	11		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	WALL	8-RND CAN 2L 13W CFL 2P/H	2	1	13W CFL 2P/H	1		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	STORAGE	2M 2L DCP 40W PUL BXA	2	1	40W PUL BXA	1		GC-27CDA894277V-TRM 8.5W					
BUILDING 100 (POLICE)	100 POLICE	NO	CHILLER	4FT 3L STRIP 32W TB	3	1	32W TB	1		IDRIVER 3AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	CHILLER	4FT 3L STRIP 32W TB	3	2	32W TB	1		IDRIVER 3AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	YES	EXTERIOR	POLE 400W HPS	1	1	400W HPS	1		RAB ALED1T150					
BUILDING 100 (POLICE)	100 POLICE	NO	OPEN AREA	2M 2L REC TROFFER 32W TB	2	1	32W TB	9		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	RESTROOM	2M 2L REC TROFFER 32W TB	2	1	32W TB	1		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	2M 2L REC TROFFER 32W TB	2	1	32W TB	4		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	2M 2L REC TROFFER 32W TB	2	1	32W TB	3		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	2M 2L REC TROFFER 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	SHOP	4FT 2L STRIP 32W TB	2	1	32W TB	9		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	DOWN STAIRS	JELLY JAR 60W A19	1	1	60W A19	1		PHILIPS A19 04687746488					
BUILDING 100 (POLICE)	100 POLICE	NO	DOWN STAIRS	JELLY JAR 60W A19	1	1	60W A19	2		PHILIPS A19 04687746488					
BUILDING 100 (POLICE)	100 POLICE	NO	RESTROOM	2M 2L WRAP 32W TB	2	1	32W TB	2		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	RESTROOM	2M 2L WRAP 32W TB	2	1	32W TB	3		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	UP STAIRS	JELLY JAR 60W A19	2	1	60W A19	3		PHILIPS A19 04687746488					
BUILDING 100 (POLICE)	100 POLICE	NO	OFFICE	4FT 2L WRAP 32W TB	2	1	32W TB	1		IDRIVER 2AMP T8 10W LEDTUBE					
BUILDING 100 (POLICE)	100 POLICE	NO	DOOR NO ACCESS	WALL PACK 60W HPS	1	1	60W HPS	7		RAB SLIM18					
BUILDING 100 (POLICE)	100 POLICE	YES	EXTERIOR	WALL PACK 60W HPS	1	1	60W HPS	1		RAB SLIM18					

# Section 6.0 – Appendix A – Lighting

## Lighting Product Data



Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat. No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty \_\_\_\_\_  
 Notes: \_\_\_\_\_

Philips EvoKit LED Retrofit Kit is an energy efficient LED alternative to traditional linear fluorescent troffers. Not only does it offer energy savings<sup>1</sup>, it also helps reduce maintenance costs due to its long lifetime. Simple construction helps decrease the installation time meaning you can have an LED solution in your ceiling in just minutes.

### Ordering guide

Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	CRI	Color Temperature (K)
<b>EvoKit 2'x2' Stock SKUs</b>							
506766	EvoKit 2x2 P 32L 28W 840 2 0-10 7 G3	28	120-277	70.000	3200	80	4000
506741	EvoKit 2x2 P 32L 30W 835 2 0-10 7 G3	30	120-277	70.000	3200	80	3500
506840	EvoKit 2x2 P 32L 31W 840 5 Mk10 7 G3	31	277	70.000	3259	80	4000
<b>EvoKit 2'x2' Made to Order SKU's</b>							
506485	EvoKit 2x2 P 23L 20W 840 2 0-10 7 G3	20	120-277	70.000	2300	80	4000
507087	EvoKit 2x2 P 23L 20W 850 2 0-10 7 G3	20	120-277	70.000	2300	80	5000
506469	EvoKit 2x2 P 23L 21W 835 2 0-10 7 G3	21	120-277	70.000	2300	80	3500
507293	EvoKit 2x2 P 23L 21W 840 6 0-10 7 G3	21	347	70.000	2300	80	4000
507285	EvoKit 2x2 P 23L 22W 835 6 0-10 7 G3	22	347	70.000	2300	80	3500
507186	EvoKit 2x2 P 23L 22W 835 2 STEP 7 G3**	22	120-277	70.000	2274	80	3500
506493	EvoKit 2x2 P 23L 22W 835 1 Mk10 7 G3	22	120	70.000	2274	80	3500
507194	EvoKit 2x2 P 23L 22W 840 2 STEP 7 G3**	22	120-277	70.000	2361	80	4000
506576	EvoKit 2x2 P 23L 22W 840 1 Mk10 7 G3	22	120	70.000	2361	80	4000
506618	EvoKit 2x2 P 23L 23W 835 5 Mk10 7 G3	23	277	70.000	2274	80	3500
506709	EvoKit 2x2 P 23L 23W 840 5 Mk10 7 G3	23	277	70.000	2361	80	4000
507111	EvoKit 2x2 P 32L 28W 850 2 0-10 7 G3	28	120-277	70.000	3200	80	5000
507400	EvoKit 2x2 P 32L 29W 840 2 SR 7 G3	29	120-277	70.000	3200	80	4000
<b>507319</b>	<b>EvoKit 2x2 P 32L 29W 840 6 0-10 7 G3</b>	<b>29</b>	<b>347</b>	<b>70.000</b>	<b>3200</b>	<b>80</b>	<b>4000</b>
506857	EvoKit 2x2 P 32L 29W 850 2 SR 7 G3	29	120-277	70.000	3200	80	5000
507301	EvoKit 2x2 P 32L 30W 835 6 0-10 7 G3	30	347	70.000	3200	80	3500
507210	EvoKit 2x2 P 32L 30W 840 2 STEP 7 G3	30	120-277	70.000	3259	80	4000
507392	EvoKit 2x2 P 32L 31W 835 2 SR 7 G3	31	120-277	70.000	3200	80	3500
507202	EvoKit 2x2 P 32L 31W 835 2 STEP 7 G3	31	120-277	70.000	3265	80	3500
506782	EvoKit 2x2 P 32L 31W 840 1 Mk10 7 G3	31	120	70.000	3259	80	4000
506774	EvoKit 2x2 P 32L 32W 835 1 Mk10 7 G3	32	120	70.000	3265	80	3500
506832	EvoKit 2x2 P 32L 33W 835 5 Mk10 7 G3	33	277	70.000	3265	80	3500
<b>EvoKit HP 2'x2' High Performance</b>							
512293	EvoKit 2x2 P 32L 22W 840 2 0-10 7 G3 HP	22.9	120-277	70.000	3200	80	4000
512285	EvoKit 2x2 P 32L 23W 835 2 0-10 7 G3 HP	23.4	120-277	70.000	3200	80	3500
512863	EvoKit 2x2 P 32L 23W 835 2 SR 7 G3 HP	23.9	120-277	70.000	3200	80	3500
512939	EvoKit 2x2 P 32L 23W 840 2 SR 7 G3 HP	23.4	120-277	70.000	3200	80	4000

See footnotes on page 5.

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# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x2'

### Application

- A highly efficient, visually comfortable, architecturally styled LED retrofit kit designed to replace recessed linear fluorescent troffers.
- Unique modular design offers refreshing new look in the ceiling when compared to traditional fluorescent luminaires.
- Single light bar combined with slanted troffer helps reflect light to reduce glare and provide uniform light distribution making it ideal for applications such as offices, schools, healthcare and retail.
- Excellent color rendering with a CRI above 80.
- Extremely high efficacies up to 118 lumens per watt.
- LEDs are an excellent source for use with controls since dimming or frequent switching does not degrade the performance or life of the source.
- Designed for use with Standard Grid (NEMA "G") or Narrow Grid (NEMA "NFG") ceiling T-Grids.
- High efficiency source and luminaire design help significantly reduce energy consumption and more easily comply with known energy codes.
- Helps meet regulation requirements such as ASHRAE 90.1 and Title 24 when matched with suitable controls.

### Construction/Finish

- Simple design allows for quick installation (under 4 minutes) in existing luminaire without the need to break the ceiling plenum.
- Constructed using galvanized steel which helps fight rust and makes for more durable product.
- Minimum depth of only 3" necessary to allow proper clearance and installation of the EvoKit.
- Retrofit kit is powder coated after fabrication with high quality, durable finish to ensure no unfinished edges and avoid future potential of corrosion.
- Components fit together easily without the need for tools during installation.

### Electrical

- Multiple driver options available
  - 0-10V dimming satisfies universal voltage requirements.
  - Mark10 leading edge dimming offers ability to dim without pulling neutral wires making it compatible with more existing systems.
  - Step dimming to 40%.
- 5 year limited warranty includes all components of the retrofit kit, including driver, LED board and nonelectrical components."

- Listed with UL and Design Lights Consortium to ensure quality performance and safety standards are met. High efficiency LEDs have a minimum 70,000 hour rated life (L<sub>70</sub>).

### Enclosure

- Diffuser requires no frames or fasteners and can be easily removed from below without tools if needed.

### Accessories

- Earthquake cables available for extra securement within the ceiling for areas prone to extreme conditions.
- Suitable for use with Philips 503441 emergency backup.
- Suitable for use with a wide range of control systems.
- Appropriate for new construction when used with standard listed lensed or parabolic troffers.

Prod. No.	Description
502435	EvoKit Accessory Earthquake Cable 317mm
502575	EvoKit 2x2 Replacement Lens
503441	EvoKit Field Installed Emergency Battery Backup

### EvoKit with new SimpleSet Technology for wireless lumen level programming

EvoKit with new SimpleSet Technology allows the maximum lumen level to be set prior to installation using a smartphone-based app without requiring power to the luminaire. Available in the 0-10V and SR versions only. The app can be downloaded at Google Play. Please contact your Philips representative for the current list of approved Android smartphones. Distributors can set lumen levels prior to shipping, and contractors can set lumen levels prior to installation. Lumen level is quickly and easily set in two steps:



Step 1: Place the smartphone next to the NFC antenna on the driver.

Step 2: Follow the on-screen instructions.

# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x2'

### EvoKitSR with Xitanium SR for connected lighting solutions

EvoKitSR is a new platform that allows users to choose different control platforms to suit their needs and budget; from simple occupancy and daylight sensing to cloud-connected data-reporting sensing. This empowers users to fine-tune their energy use for reduced energy costs. Contact your Philips representative for a current list of approved sensors. Sensors are connected in the field with just a few simple steps:



Step 1: EvoKitSR is shipped with a plate covering the sensor hole. There are two wires secured to the back of the plate.



Step 2: The plate can be removed before or after you install EvoKit SR. Just gently slide the plate to one end and remove.



Step 3: Remove the two wires that were secured to the back of the plate.



Step 4: Take these two wires and insert them into the sensor. They are not polarity sensitive.



Step 5: Insert the sensor back into the hole. The sensor may or may not require a socket.

### SpaceWise Technology 4.1 (SWZ) – To be purchased separately

- Optional SpaceWise automated wireless technology via the unique Philips Evokit SpaceWise Accessory provides integrated occupancy and daylight harvesting for additional control and energy savings. Requiring no system re-wiring, SpaceWise technology is ideal for retrofit applications.
- Occupancy and daylight sensors are integral to each luminaire. Luminaires in large rooms and open plan areas are grouped together up to a maximum of 50 using a handheld remote so room lighting turns on at first sign of occupancy.
- Upon first entry, grouped luminaires brighten up gently to a background level. Once occupants arrive at their workstations,

luminaires in the immediate area brighten up to full illumination and will dim down when no presence is detected. Grouped luminaires will dim to off when no presence is detected in the group.

- Daylight sensing is automatic and re-calibration occurs daily when luminaires turn on.
- The SpaceWise Accessory, when combined in the field with any standard 0-10 dimmable Evokit, will transform the kit into a SpaceWise-enable retrofit kit. There are two variations of the accessory, one for the Evokit 2x4 and one for the Evokit 2x2.



EvoKit			
Model	Initial Lumens	Input Power	Lumens per Watt
EvoKit 2x2 P 32L 28W 840 2 0-10 7 G3 (506766)	3200	28	114
Prod. No.	12NC	Description	
503599	929000725913	EvoKit 2x2 SpaceWise Accessory	
504449	913700359103	Spacewise Programming Tool	
455436	913700364403	Switch/Dimmer	
455428	913700364203	4 position scene selector	

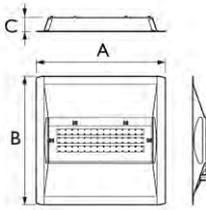
EvoKit with Spacewise (SWZ)			
Model	Initial Lumens	Input Power Max Output (W)	Input Power Background Output (W)
High Power Setting (120/277V)	3200	28	9
Medium Power Setting (120/277V)	2816	25	8
Low Power Setting (120/277V)	2464	22	7
Minimum Power Setting (120/277V)	2112	18	6

# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x2'

### Dimensions

A Face Plate Length	B Face Plate Width	C Height
23.9"	23.9"	2.95"



### Energy Saving Solution – 2'x2'

Present Wattage	59 W
x Annual Operating Hours	4,380 hrs
	= 258,420 watt-hours
±1,000	= 258.42 kWh per year
x kWh rate of \$0.11	= \$28.43 per year
x 125 fixtures	= \$3,553.28 annual energy cost per space

Present Wattage	28 W
x Annual Operating Hours	4,380 hrs
	= 122,640 watt-hours
±1,000	= 122.64 kWh per year
x kWh rate of \$0.11	= \$13.49 per year
x 125 fixtures	= \$1,686.00 annual energy cost per space

**Total Estimated Annual Savings<sup>§</sup> = \$1,867.00**

§ Based on 125 fixtures per space operating 4,380 hours a year. 125 fixtures is roughly equivalent to a 10,000 square foot space. kWh rates will vary.

### 2'x2' EvoKit, P 23L 23W 835 5 Mk10 7 G3, 2185 delivered lumens

Catalog No.	x223L
Test No.	1.2
S/MH	LED
Lamp Type	
Ballast	93
Lumens/Watt	23
Input Watts	

Comparative yearly lighting energy cost per 1000 lumens – \$2.58 based on 3000 hours and \$0.08/kWh

The photometric results were obtained in the Design Lights Consortium Test Lab which is NVLAP accredited by the National Institute of Standards and Technology

Photometric values based on tests performed in compliance with LM-79

Angle	End	45	Cross	Back-45
0	782	782	782	782
5	780	778	779	777
15	746	745	747	741
25	677	679	686	675
35	580	590	604	584
45	465	486	510	480
55	349	381	416	375
65	236	279	315	274
75	132	174	201	169
85	41	62	72	57

pcc pw RCR	EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)							
	80		70		50		30	
	70	50	30	70	50	30	50	30
0	118	118	118	115	115	115	111	111
1	108	103	98	105	101	96	96	93
2	97	90	82	94	88	81	83	79
3	89	79	69	86	77	68	73	67
4	81	69	60	79	68	59	66	57
5	75	61	53	72	60	52	58	51
6	68	56	46	68	55	46	53	46
7	64	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	42	34	55	41	34	40	34
10	53	39	30	51	39	30	38	30

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45	Cross
0-30	596	27.3	45	2310	2416	2537
0-40	963	44.1	55	2138	2334	2549
0-60	1675	76.7	65	1966	2322	2623
0-90	2185	100	75	1793	2364	2736
			85	1642	2481	2892

# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x2'

2'x2' EvoKit, P 32L 31W 835 2 SR 7 G3, 2971 delivered lumens

Catalog No.	x232L
Test No.	1.2
S/MH	LED
Lamp Type	LED
Ballast	98
Lumens/Watt	30
Input Watts	

Candlepower				
Angle	End	45	Cross	Back-45
0	1059	1059	1059	1059
5	1056	1053	1055	1052
15	1010	1008	1012	1004
25	917	921	930	914
35	787	799	819	792
45	634	660	694	651
55	477	519	566	511
65	325	381	431	373
75	183	239	276	232
85	58	85	99	79

Comparative yearly lighting energy cost per 1000 lumens - \$2.45 based on 3000 hours and \$0.08/kWh

The photometric results were obtained in the Design Lights Consortium Test Lab which is NVLAP accredited by the National Institute of Standards and Technology

Photometric values based on tests performed in compliance with LM-79

Coefficients of Utilization									
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pcc	80			70			50		
	pw	70	50	30	70	50	30	50	30
RCR									
0	118	118	118	115	115	115	111	111	111
1	108	103	98	105	101	96	96	93	93
2	97	90	81	94	88	81	83	79	79
3	89	78	69	86	77	68	73	67	67
4	81	68	59	79	68	59	66	57	57
5	75	61	53	72	60	52	58	51	51
6	68	56	46	67	55	46	53	45	45
7	64	51	41	63	50	40	47	40	40
8	59	46	38	57	46	36	44	36	36
9	56	41	34	55	41	34	40	33	33
10	53	39	30	51	39	30	38	30	30

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45'	Cross
0-30	807	27.2	45	3149	3280	3448
0-40	1305	43.9	55	2923	3180	3471
0-60	2274	76.5	65	2703	3169	3586
0-90	2971	100	75	2488	3239	3747
			85	2340	3434	3976

**FOOTNOTES:**

- 1) Please refer to the energy saving chart on page 3 for details.
  - 2)  $L_{70}$  72,000 hours @ 35°C based on TM21 and LM80.
  - 3) Based on photometric testing consistent with IES LM-79
  - \* "Made-To-Order" product is not kept in inventory. Minimum quantities will apply.
  - \*\* These products do not meet DLC criteria.
  - \*\*\* Please visit [www.philips.com/warranties](http://www.philips.com/warranties) for full details.
- † DLC requires the product to meet specific performance requirements regarding: lumen output, spacing criteria, lumens per watt, color temperature, CRI, lifetime and warranty

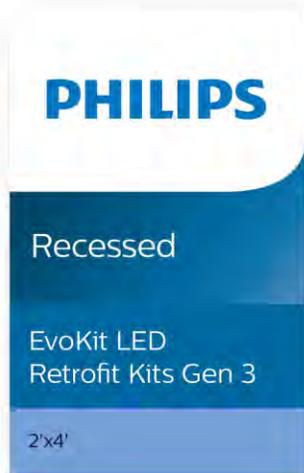
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Philips Lighting, North America Corporation  
200 Franklin Square Drive, Somerset, NJ 08873  
Tel. 855-486-2216

Imported by: Philips Lighting,  
A division of Philips Electronics Ltd.  
281 Hillmount Rd, Markham, ON, Canada L6C 2S3  
Tel. 800-668-9008

# Section 6.0 – Appendix A – Lighting



Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

Philips EvoKit LED Retrofit Kit is an energy efficient LED alternative to traditional linear fluorescent troffers. Not only does it offer energy savings, it also helps reduce maintenance costs due to its long lifetime. Simple construction helps decrease the installation time meaning you can have an LED solution in your ceiling in just minutes.

## Ordering guide (continued on next page)

Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs.) <sup>2</sup>	Approx. Lumens <sup>1</sup>	CRI	Color Temperature (K)
<b>EvoKit 2'x4' Stock SKUs</b>							
506881	EvoKit 2x4 P 36L 31W 840 2 0-10 7 G3	31	120-277	70,000	3600	80	4000
506865	EvoKit 2x4 P 36L 32W 835 2 0-10 7 G3	32	120-277	70,000	3600	80	3500
507079	EvoKit 2x4 P 42L 39W 840 5 Mk10 7 G3	39	277	70,000	4219	80	4000
507038	EvoKit 2x4 P 42L 36W 840 2 0-10 7 G3	36	120-277	70,000	4200	80	4000
506964	EvoKit 2x4 P 42L 38W 835 2 0-10 7 G3	38	120-277	70,000	4200	80	3500
<b>EvoKit 2'x4' Made to Order SKU's</b>							
507335	EvoKit 2x4 P 36L 31W 840 6 0-10 7 G3	31	347	70,000	3600	80	4000
507236	EvoKit 2x4 P 36L 31W 840 2 STEP 7 G3	31	120-277	70,000	3492	80	4000
506873	EvoKit 2x4 P 36L 31W 850 2 0-10 7 G3	31	120-277	70,000	3600	80	5000
507327	EvoKit 2x4 P 36L 32W 835 6 0-10 7 G3	32	347	70,000	3600	80	3500
506915	EvoKit 2x4 P 36L 32W 840 1 Mk10 7 G3	32	120	70,000	3492	80	4000
506931	EvoKit 2x4 P 36L 32W 840 5 Mk10 7 G3	32	277	70,000	3492	80	4000
507228	EvoKit 2x4 P 36L 33W 835 2 STEP 7 G3	33	120-277	70,000	3615	80	3500
506907	EvoKit 2x4 P 36L 34W 835 1 Mk10 7 G3	34	120	70,000	3615	80	3500
506923	EvoKit 2x4 P 36L 34W 835 5 Mk10 7 G3	34	277	70,000	3615	80	3500
506956	EvoKit 2x4 P 42L 36W 850 2 0-10 7 G3	36	120-277	70,000	4200	80	5000
506451	EvoKit 2x4 P 42L 37W 840 2 SR 7 G3	37	120-277	70,000	4200	80	4000
507251	EvoKit 2x4 P 42L 37W 840 2 STEP 7 G3	37	120-277	70,000	4219	80	4000
507368	EvoKit 2x4 P 42L 37W 840 6 0-10 7 G3	37	347	70,000	4200	80	4000
506717	EvoKit 2x4 P 42L 37W 850 2 SR 7 G3	37	120-277	70,000	4200	80	5000

See footnotes on page 6.



# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x4'

### Ordering guide (continued from previous page)

Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	CRI	Color Temperature (K)
<b>EvoKit 2'x4' Made to Order SKU's</b>							
507350	EvoKit 2x4 P 42L 38W 835 6 0-10 7 G3	38	347	70,000	4200	80	3500
506477	EvoKit 2x4 P 42L 39W 835 2 SR 7 G3	39	120-277	70,000	4200	80	3500
507244	EvoKit 2x4 P 42L 39W 835 2 STEP 7 G3	39	120-277	70,000	4266	80	3500
507053	EvoKit 2x4 P 42L 39W 840 1 Mk10 7 G3	39	120	70,000	4219	80	4000
507046	EvoKit 2x4 P 42L 41W 835 1 Mk10 7 G3	41	120	70,000	4266	80	3500
507061	EvoKit 2x4 P 42L 41W 835 5 Mk10 7 G3	41	277	70,000	4266	80	3500
507384	EvoKit 2x4 P 47L 41W 840 6 0-10 7 G3	41	347	70,000	4700	80	4000
507426	EvoKit 2x4 P 47L 42W 840 2 SR 7 G3	42	120-277	70,000	4700	80	4000
507277	EvoKit 2x4 P 47L 42W 840 2 STEP 7 G3	42	120-277	70,000	4716	80	4000
506758	EvoKit 2x4 P 47L 42W 850 2 SR 7 G3	42	120-277	70,000	4700	80	5000
507129	EvoKit 2x4 P 47L 42W 840 2 0-10 7 G3	42	120-277	70,000	4700	80	4000
507020	EvoKit 2x4 P 47L 42W 850 2 0-10 7 G3	42	120-277	70,000	4700	80	5000
507418	EvoKit 2x4 P 47L 43W 835 2 SR 7 G3	43	120-277	70,000	4528	80	3500
507103	EvoKit 2x4 P 47L 43W 835 2 0-10 7 G3	43	120-277	70,000	4700	80	3500
507376	EvoKit 2x4 P 47L 43W 835 6 0-10 7 G3	43	347	70,000	4700	80	3500
507152	EvoKit 2x4 P 47L 44W 840 1 Mk10 7 G3	44	120	70,000	4716	80	4000
507178	EvoKit 2x4 P 47L 44W 840 5 Mk10 7 G3	44	277	70,000	4716	80	4000
507269	EvoKit 2x4 P 47L 45W 835 2 STEP 7 G3	45	120-277	70,000	4797	80	3500
507137	EvoKit 2x4 P 47L 47W 835 1 Mk10 7 G3	47	120	70,000	4797	80	3500
507160	EvoKit 2x4 P 47L 47W 835 5 Mk10 7 G3	47	277	70,000	4797	80	3500
<b>EvoKit 2'x4' High Performance</b>							
512251	Evokit 2x4 P 47L 34W 840 2 0-10 7 G3 HP	34.0	120-277	70,000	4700	80	4000
512277	Evokit 2x4 P 42L 29W 840 2 0-10 7 G3 HP	29.9	120-277	70,000	4200	80	4000
512228	Evokit 2x4 P 47L 34W 835 2 0-10 7 G3 HP	34.8	120-277	70,000	4700	80	3500
512269	Evokit 2x4 P 42L 30W 835 2 0-10 7 G3 HP	30.6	120-277	70,000	4200	80	3500
512699	Evokit 2x4 P 47L 35W 835 2 SR 7 G3 HP	35.6	120-277	70,000	4700	80	3500
512830	Evokit 2x4 P 47L 34W 840 2 SR 7 G3 HP	34.8	120-277	70,000	4700	80	4000

See footnotes on page 6.

# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x4'

### Application

- A highly efficient, visually comfortable, architecturally styled LED retrofit kit designed to replace recessed linear fluorescent troffers.
- Unique modular design offers refreshing new look in the ceiling when compared to traditional fluorescent luminaires.
- Single light bar combined with slanted troffer helps reflect light to reduce glare and provide uniform light distribution making it ideal for applications such as offices, schools, healthcare and retail.
- Excellent color rendering with a CRI above 80.
- Extremely high efficacies up to 118 lumens per watt.
- LEDs are an excellent source for use with controls since dimming or frequent switching does not degrade the performance or life of the source.
- Designed for use with Standard Grid (NEMA "G") or Narrow Grid (NEMA "NFG") ceiling T-Grids.
- High efficiency source and luminaire design help significantly reduce energy consumption and more easily comply with known energy codes.
- Helps meet regulation requirements such as ASHRAE 90.1 and Title 24 when matched with suitable controls.

### Construction/Finish

- Simple design allows for quick installation (under 4 minutes) in existing luminaire without the need to break the ceiling plenum.
- Constructed using galvanized steel which helps fight rust and makes for more durable product.
- Minimum depth of only 3" necessary to allow proper clearance and installation of the EvoKit.
- Retrofit kit is powder coated after fabrication with high quality, durable finish to ensure no unfinished edges and avoid future potential of corrosion.
- Components fit together easily without the need for tools during installation.

### Electrical

- Multiple driver options available
  - 0-10V dimming satisfies universal voltage requirements.
  - Mark10 leading edge dimming offers ability to dim without pulling neutral wires making it compatible with more existing systems.
  - Step dimming to 40%.
- 5 year limited warranty includes all components of the retrofit kit, including driver, LED board and nonelectrical components."

- Listed with UL and Design Lights Consortium to ensure quality performance and safety standards are met. High efficiency LEDs have a minimum 70,000 hour rated life (L<sub>70</sub>).

### Enclosure

- Diffuser requires no frames or fasteners and can be easily removed from below without tools if needed.

### Accessories

- Earthquake cables available for extra securement within the ceiling for areas prone to extreme conditions.
- Suitable for use with Philips 503441 emergency backup.
- Suitable for use with a wide range of control systems.
- Appropriate for new construction when used with standard listed lensed or parabolic troffers.

Prod. No.	Description
502435	EvoKit Accessory Earthquake Cable 317mm
502583	EvoKit 2x4 Replacement Lens
503441	EvoKit Field Installed Emergency Battery Backup

### EvoKit with new SimpleSet Technology for wireless lumen level programming

EvoKit with new SimpleSet Technology allows the maximum lumen level to be set prior to installation using a smartphone-based app without requiring power to the luminaire. Available in the 0-10V and SR versions only. The app can be downloaded at Google Play. Please contact your Philips representative for the current list of approved Android smartphones. Distributors can set lumen levels prior to shipping, and contractors can set lumen levels prior to installation. Lumen level is quickly and easily set in two steps:



Step 1: Place the smartphone next to the NFC antenna on the driver.

Step 2: Follow the on-screen instructions.

# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x4'

### EvoKitSR with Xitanium SR for connected lighting solutions

EvoKitSR is a new platform that allows users to choose different control platforms to suit their needs and budget, from simple occupancy and daylight sensing to cloud-connected data-reporting sensing. This empowers users to fine-tune their energy use for reduced energy costs. Contact your Philips representative for a current list of approved sensors. Sensors are connected in the field with just a few simple steps:



Step 1: EvoKitSR is shipped with a plate covering the sensor hole. There are two wires secured to the back of the plate.



Step 2: The plate can be removed before or after you install EvoKit SR. Just gently slide the plate to one end and remove.



Step 3: Remove the two wires that were secured to the back of the plate.



Step 4: Take these two wires and insert them into the sensor. They are not polarity sensitive.



Step 5: Insert the sensor back into the hole. The sensor may or may not require a socket.

### SpaceWise Technology 4.1 (SWZ) – To be purchased separately

- Optional SpaceWise automated wireless technology via the unique Philips Evokit SpaceWise Accessory provides integrated occupancy and daylight harvesting for additional control and energy savings. Requiring no system re-wiring, SpaceWise technology is ideal for retrofit applications.
- Occupancy and daylight sensors are integral to each luminaire. Luminaires in large rooms and open plan areas are grouped together up to a maximum of 50 using a handheld remote so room lighting turns on at first sign of occupancy.
- Upon first entry, grouped luminaires brighten up gently to a background level. Once occupants arrive at their workstations,

luminaires in the immediate area brighten up to full illumination and will dim down when no presence is detected. Grouped luminaires will dim to off when no presence is detected in the group.

- Daylight sensing is automatic and re-calibration occurs daily when luminaires turn on.
- The SpaceWise Accessory, when combined in the field with any standard 0-10 dimmable Evokit, will transform the kit into a SpaceWise-enable retrofit kit. There are two variations of the accessory, one for the Evokit 2x4 and one for the Evokit 2x2.



EvoKit			
Model	Initial Lumens	Input Power	Lumens per Watt
EvoKit 2x4 P 42L 36W 840 2 0-10 7 G3 (507038)	4200	36	116
Prod. No.	12NC	Description	
503615	929000726013	EvoKit 2x4 SpaceWise Accessory	
504449	913700359103	Spacewise Programming Tool	
455436	913700364403	Switch/Dimmer	
455428	913700364203	4 position scene selector	

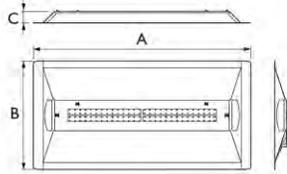
EvoKit with Spacewise (SWZ)			
Model	Initial Lumens	Input Power Max Output (W)	Input Power Background Output (W)
High Power Setting (120/277V)	4200	36	12
Medium Power Setting (120/277V)	3696	32	11
Low Power Setting (120/277V)	3234	28	10
Minimum Power Setting (120/277V)	2772	24	8

# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x4'

### Dimensions

A Face Plate Length	B Face Plate Width	C Height
47.83"	23.9"	2.95"



### Energy Saving Solution – 2'x4'

Present Wattage	85 W
x Annual Operating Hours	4,380 hrs
	= 372,300 watt-hours
=1,000	= 372.3 kWh per year
x kWh rate of \$0.11	= \$40.95 per year
x 125 fixtures	= \$5,119.13 annual energy cost per space

Present Wattage	36 W
x Annual Operating Hours	4,380 hrs
	= 157,680 watt-hours
=1,000	= 157.68 kWh per year
x kWh rate of \$0.11	= \$17.34 per year
x 125 fixtures	= \$2,167.50 annual energy cost per space

**Total Estimated Annual Savings<sup>1</sup> = \$2,951.63**

<sup>1</sup> Based on 125 fixtures per space operating 4,380 hours a year. 125 fixtures is roughly equivalent to a 10,000 square foot space. kWh rates will vary.

### 2'x4' EvoKit, P 36L 32W 835 2 0-10 7 G3, 3473 delivered lumens

Catalog No.	x436L
Test No.	1.2
S/MH	1.2
Lamp Type	LED
Ballast	
Lumens/Watt	109
Input Watts	32

Comparative yearly lighting energy cost per 1000 lumens - \$2.20 based on 3000 hours and \$0.08/kWh

The photometric results were obtained in the Design Lights Consortium Test Lab which is NVLAP accredited by the National Institute of Standards and Technology

Photometric values based on tests performed in compliance with LM-79

Angle	Candlepower			
	End	45	Cross	Back-45
0	1239	1239	1239	1239
5	1220	1232	1252	1229
15	1167	1179	1199	1173
25	1062	1075	1096	1067
35	913	932	957	921
45	733	764	800	751
55	550	596	652	585
65	369	446	511	436
75	203	296	344	286
85	65	112	118	102

pcc pw RCR	Coefficients of Utilization EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)											
	80			70			50					
	70	50	30	70	50	30	50	30				
0	118	118	118	115	115	115	111	111				
1	108	103	97	105	101	95	95	93				
2	97	89	81	94	86	81	83	78				
3	89	78	69	86	77	68	73	67				
4	81	68	59	79	68	58	65	57				
5	75	61	53	72	60	52	58	51				
6	68	56	46	67	55	46	53	45				
7	64	51	41	63	50	40	47	40				
8	59	46	38	57	45	36	44	36				
9	56	41	34	55	41	34	40	33				
10	53	39	30	51	39	30	38	30				

Degrees	Lumens	% Luminaire	Average Luminance			
			Angle	End	45	Cross
0-30	942	27.1	45	1781	1856	1944
0-40	1522	43.8	55	1647	1785	1954
0-60	2638	76.0	65	1500	1814	2077
0-90	3473	100	75	1344	1963	2287
			85	1271	2198	2329

### 2'x4' EvoKit, P 42L 39W 835 2 SR 7 G, 4087 delivered lumens

Catalog No.	x442L
Test No.	1.2
S/MH	1.2
Lamp Type	LED
Ballast	
Lumens/Watt	104
Input Watts	39

Comparative yearly lighting energy cost per 1000 lumens - \$2.31 based on 3000 hours and \$0.08/kWh

The photometric results were obtained in the Design Lights Consortium Test Lab which is NVLAP accredited by the National Institute of Standards and Technology

Photometric values based on tests performed in compliance with LM-79

Angle	Candlepower			
	End	45	Cross	Back-45
0	1466	1466	1466	1466
5	1442	1458	1482	1455
15	1381	1394	1417	1388
25	1256	1271	1294	1260
35	1082	1100	1125	1087
45	869	900	939	885
55	648	700	762	686
65	433	522	597	510
75	238	345	404	335
85	76	130	141	122

pcc pw RCR	Coefficients of Utilization EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)											
	80			70			50					
	70	50	30	70	50	30	50	30				
0	118	118	118	115	115	115	111	111				
1	108	103	97	105	101	95	95	93				
2	97	89	81	94	86	81	83	78				
3	89	78	69	86	77	68	73	67				
4	81	68	59	79	68	59	65	57				
5	75	61	53	72	60	52	58	51				
6	68	56	46	67	55	46	53	45				
7	64	51	41	63	50	40	47	40				
8	59	46	38	57	46	36	44	36				
9	56	42	34	55	41	34	40	33				
10	53	39	30	51	39	30	38	30				

Degrees	Lumens	% Luminaire	Average Luminance			
			Angle	End	45	Cross
0-30	1114	27.3	45	2111	2187	2281
0-40	1798	44.0	55	1940	2096	2283
0-60	3109	76.1	65	1760	2121	2427
0-90	4087	100	75	1582	2291	2682
			85	1500	2559	2771

# Section 6.0 – Appendix A – Lighting

## EvoKit LED Retrofit Kit 2'x4'

2'x4' EvoKit, P 47L 43W 835 2 0-10 7 G3, 4689 delivered lumens

Catalog No.	Test No.	S/MH	Lamp Type	Ballast	Lumens/Watt	Input Watts	Candlepower				Coefficients of Utilization											
							Angle	End	45	Cross	Back-45	EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)										
							pfc				BCR											
							80				70				50							
							70		50		30		70		50		30		50		30	
x447L		1.2	LED		101	47	0	1682	1682	1682	1682	1682	118	118	118	115	115	115	111	111		
							5	1654	1672	1699	1669	1447	108	103	97	105	101	95	95	93		
							15	1582	1598	1626	1592	1447	97	89	81	94	86	81	83	78		
							25	1436	1456	1483	1447	1447	89	78	69	86	77	68	73	67		
							35	1232	1260	1291	1247	1447	81	68	59	79	68	59	65	57		
							45	988	1030	1077	1015	1015	75	61	53	72	60	52	58	51		
							55	737	801	877	788	788	68	56	46	67	55	46	53	45		
							65	490	598	686	586	586	64	51	41	63	50	40	47	40		
							75	268	394	463	385	385	59	46	38	57	46	36	44	36		
							85	83	148	159	139	139	9	56	42	34	55	41	34	40	33	
													10	53	39	30	51	39	30	38	30	

Light Distribution			Average Luminance		
Degrees	Lumens	% Luminaire	Angle	End	Cross
0-30	1278	27.3	45	2400	2504
0-40	2063	44.0	55	2207	2400
0-60	3569	76.1	65	1992	2430
0-90	4689	100	75	1778	2616
			85	1630	2926

**FOOTNOTES:**

- 1) Please refer to the energy saving chart on page 3 for details.
- 2) L<sub>70</sub> 72,000 hours @ 35°C based on TM21 and LM80.
- 3) Based on photometric testing consistent with IES LM-79.
- \* "Made-To-Order" product is not kept in inventory. Minimum quantities will apply.
- \*\* These products do not meet DLC criteria.
- \*\*\* Please visit [www.philips.com/warranties](http://www.philips.com/warranties) for full details.
- † DLC requires the product to meet specific performance requirements regarding:
  - lumen output, spacing criteria, lumens per watt, color temperature, CRI, lifetime and warranty.

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Philips Lighting, North America Corporation  
 200 Franklin Square Drive, Somerset, NJ 08873  
 Tel. 855-486-2216

Imported by: Philips Lighting,  
 A division of Philips Electronics Ltd.  
 281 Hillmount Rd, Markham, ON, Canada L6C 2S3  
 Tel. 800-668-9008

# Section 6.0 – Appendix A – Lighting



## High performance **A Shapes**

**Philips LED A Shape** dimmable lamps are a great alternative to standard incandescent lamps. The unique lamp design provides omni-directional light with excellent dimming performance. These lamps are ideal for decorative and ambient lighting in retail outlets, hotels, restaurants, government buildings, offices and multi-unit residences.

- Long life lowers maintenance costs by reducing re-lamp frequency
- Will not fade colors, avoids inventory spoilage
- Can be used in enclosed fixtures
- 1-year limited warranty
- Contains no mercury
- Smooth dimming

# Section 6.0 – Appendix A – Lighting

## High performance A Shapes

Ordering, electrical and technical data (subject to change without notice)

Product Number	Model Number	Description	Watts	Volts	Replacement Wattage	Lumens	Life	CCT	Base	Warm glow effect (yes / no)
47942-8	9290018371	5.5A19/PER/827-22/P/E26/WG 6/1FB	5.5	120	40	450	15,000	2200-2700	Med (E26)	Y
47944-4	9290018373	9.5A19/PER/827-22/P/E26/WG 6/1FB	9.5	120	60	800	15,000	2200-2700	Med (E26)	Y
47946-9	9290018375	12A21/PER/827-22/P/E26/WG 6/1FB	12	120	75	1100	15,000	2200-2700	Med (E26)	Y
47948-5	9290018377	16A21/PER/827-22/P/E26/WG 6/1FB	16	120	100	1600	15,000	2200-2700	Med (E26)	Y
47984-0	9290018361	5.5A19/PER/827/P/E26/DIM 6/1FB	5.5	120	40	450	15,000	2700	Med (E26)	N
47985-7	9290018363	9.5A19/PER/827/P/E26/DIM 6/1FB	9.5	120	60	800	15,000	2700	Med (E26)	N
47987-3	9290018873	12A21/PER/827/P/E26/DIM 6/1FB	12	120	75	1100	15,000	2700	Med (E26)	N
47988-1	9290018368	16A21/PER/827/P/E26/DIM 6/1FB	16	120	100	1600	15,000	2700	Med (E26)	N
53298-5	9290018669	5.5A19/PER/830/P/E26/DIM 6/1FB	5.5	120	40	450	15,000	3000	Med (E26)	N
47986-5	9290018364	9.5A19/PER/830/P/E26/DIM 6/1FB	9.5	120	60	800	15,000	3000	Med (E26)	N
53299-3	9290018668	12A21/PER/830/P/E26/DIM 6/1FB	12	120	75	1100	15,000	3000	Med (E26)	N
47989-9	9290018369	16A21/PER/830/P/E26/DIM 6/1FB	16	120	100	1600	15,000	3000	Med (E26)	N
47943-6	9290018362	5.5A19/PER/850/P/E26/DIM 6/1FB	5.5	120	40	450	15,000	5000	Med (E26)	N
47945-1	9290018365	9A19/PER/850/P/E26/DIM 6/1FB	9	120	60	800	15,000	5000	Med (E26)	N
47947-7	9290018367	12A21/PER/850/P/E26/DIM 6/1FB	12	120	75	1100	15,000	5000	Med (E26)	N
47949-3	9290018370	16A21/PER/850/P/E26/DIM 6/1FB	16	120	100	1600	15,000	5000	Med (E26)	N

Shipping data (subject to change without notice)

Product Number	SKU UPC	Case UPC	Case Qty	Case Weight (lbs)	Case Cube (cu.ft.)	Pallet Qty	SKUs per Layer	Layers High	SKU Dims L x W x H (in.)	Case Dims L x W x H (in.)	Pallet Dims L x W x H (in.)
47942-8	46677479428	50046677479423	6	1.71	0.13	2430	270	9	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 54
47944-4	46677479442	50046677479447	6	1.72	0.13	2430	270	9	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 54
47946-9	46677479466	50046677479461	6	1.56	0.18	1536	192	8	3 x 3 x 5.5	9.1 x 6.1 x 5.6	47.2 x 39.4 x 50.8
47948-5	46677479480	50046677479485	6	1.56	0.18	1536	192	8	3 x 3 x 5.5	9.1 x 6.1 x 5.6	47.2 x 39.4 x 50.8
47984-0	46677479848	50046677479843	6	1.71	0.13	2430	270	9	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 54
47985-7	46677479855	50046677479850	6	1.71	0.13	2430	270	9	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 54
47987-3	46677479879	50046677479874	6	1.56	0.18	1536	192	8	3 x 3 x 5.5	9.1 x 6.1 x 5.6	47.2 x 39.4 x 50.8
47988-1	46677479886	50046677479881	6	1.56	0.18	1536	192	8	3 x 3 x 5.5	9.1 x 6.1 x 5.6	47.2 x 39.4 x 50.8
53298-5	46677532987	50046677532982	6	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
47986-5	46677479862	50046677479867	6	1.71	0.13	2430	270	9	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 54
53299-3	46677532994	50046677532999	6	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
47989-9	46677479893	50046677479898	6	1.56	0.18	1536	192	8	3 x 3 x 5.5	9.1 x 6.1 x 5.6	47.2 x 39.4 x 50.8
47943-6	46677479435	50046677479430	6	1.71	0.13	2430	270	9	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 54
47945-1	46677479459	50046677479454	6	1.71	0.13	2430	270	9	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 54
47947-7	46677479473	50046677479478	6	1.56	0.18	1536	192	8	3 x 3 x 5.5	9.1 x 6.1 x 5.6	47.2 x 39.4 x 50.8
47949-3	46677479497	50046677479492	6	1.56	0.18	1536	192	8	3 x 3 x 5.5	9.1 x 6.1 x 5.6	47.2 x 39.4 x 50.8

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Philips Lighting North America Corporation  
200 Franklin Square Drive, Somerset, NJ 08873  
Tel. 855-486-2216

Philips Lighting Canada Ltd.  
281 Hillmount Rd, Markham, ON, Canada L6C 2S3  
Tel. 800-668-9008

# Section 6.0 – Appendix A – Lighting

## LUNERA CFL LED GEN4 LED Replacement for 2-pin GX23 PLs



### Description

The LUNERA CFL LED GX23 Gen 4 from Lunera is a plug-and-play LED replacement for CFL applications such as downlights, sconces and other fixtures using the 13W GX23 socket. The Lunera CFL LED GX23 supports both Ballast Driven (plug-and-play) and Line Driven operation at 120V-277V 50/60Hz.

These beautiful lamps have a Color Rendering Index of 82 and deliver 500+ lumens of usable light. The Lunera CFL LED GX23 is available in 2700K, 3000K, 3500K, and 4000K color temperatures.

The long lifespan of the Lunera CFL LED GX23 is rated at 50,000 hours, five times longer than CFLs and is supported by a five year warranty.

The Lunera CFL LED GX23 offers 60%+ energy savings and is compatible with 13W GX23 magnetic ballasts and 120V-277V 50/60Hz ballast bypass operation.



### Features

- Directly replaces 13W GX23 CFL lamp (2-pin)
- Supports both plug-and-play Ballast Driven installation and Line Driven (ballast bypass) installation at 120V/277V
- Delivers 500+ lumens of usable light
- >80 CRI
- CCT 2700K, 3000K, 3500K and 4000K
- 50,000 hr life to L70
- 5-Year Warranty



### Ordering Information

Example: HN-H-GX23-U-5W-830-G4

Series	Version	Socket Type	Power Supply	Lamp Wattage Replaced	CCT	Generation
<b>HN</b> Lunera CFL LED	<b>H</b> Horizontal, Universal Support for Ballast and 120V/277V operation	<b>GX23</b> Fixture with GX23 Socket	<b>U</b> Universal Lamp Supports GX23 Magnetic Ballast and 100V~305V	<b>5W</b> Replaces 13W GX23 CFL Lamp	<b>827</b> 2700 Kelvin <b>830</b> 3000 Kelvin <b>835</b> 3500 Kelvin <b>840</b> 4000 Kelvin	<b>G4</b> 4 <sup>th</sup> Generation

# Section 6.0 – Appendix A – Lighting

## LUNERA CFL LED GX23

2 of 2

### Product Specifications

#### Illumination

Color Temperatures	2700K, 3000K, 3500K, 4000K
Delivered Lumens:	@2700K 528lm @3000K 505lm @3500K 575lm @4000K 580lm
CRI	>80
Color Consistency	Lunera TriColor Proprietary Process
Lumen Maintenance (L70)	50,000+ hours life

#### Electrical System

Power Factor	> 90%
Total Harmonic Distortion	< 20%
Input Voltage	<b>UNIVERSAL:</b> Lamp can be driven by magnetic GX23 ballast or the ballast can be bypassed and the lamp driven directly by 100V-305V 50/60Hz AC line voltage
Surge Protection	Complies with ENERGY STAR LED lamp transient protection (7 strikes of a 2.5kV 100kHz ring wave)
Average Lamp Power	5W
Total Power (Lamp + Ballast)	5W + 0.2W for ballast
Lamp Wattage Replaced	13W + 3W for ballast
Dimming	If supported by ballast or via TRIAC dimmer on 120V AC, contact Lunera for list of compatible dimmers.

#### Physical

Weight	0.1 lbs
Housing and Finish	Thermoplastic, White
Optics	Optical Acrylic Diffusion

#### Environment

Ambient Operating Temp	-40°F to 100°F (-40°C to 40°C)
Ambient Operating Humidity	Dry and Damp Certified
Max. Heat Sink Temp	221°F (105°C)

#### Installation

Socket Type (magnetic or line)	GX23 series 2-Pin CFL socket
--------------------------------	------------------------------

#### Certifications & Qualifications

UL	Listed (UL1993) & Classified (UL1698-C)
RoHS Compliant	Contains no lead or mercury
LM79, LM80, IES Files	Available

#### Warranty

Warranty	5 years
----------	---------

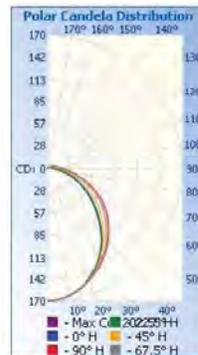
#### Application Notes

The Lunera CFL LED may be used in open or fully enclosed fixtures indoors or outdoors.

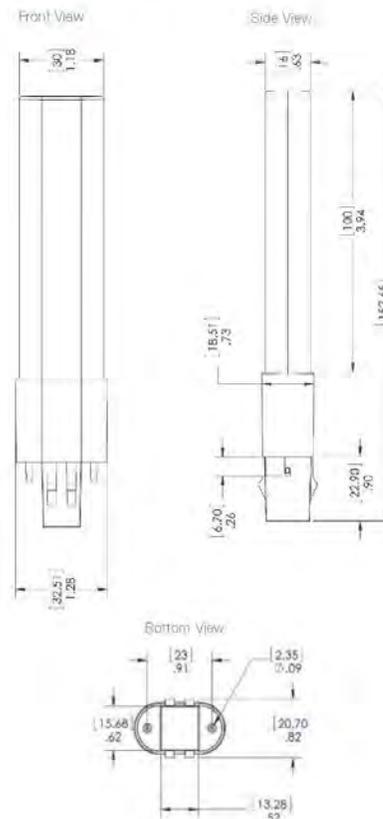
**CAUTION - IF THE LAMP OR LUMINAIRE EXHIBITS UNDESIRABLE OPERATION (BUZZING, FLICKERING, ETC.), IMMEDIATELY TURN OFF POWER, REMOVE LAMP FROM LUMINAIRE AND CONTACT MANUFACTURER.**

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### Photometry



### Dimensions



R092616

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# Section 6.0 – Appendix A – Lighting



## MR16/GU10/PAR16 LED

7MR16/LED/F25/840/DIM AF2 10/1

Philips MR16 Dimmable LED Lamps provide ambient level light to illuminate hard to maintain applications. Increased transformer compatibility allows for operation on a wider range of transformers. Available in dimmable and non-dimmable versions, these lamps are ideal for track and open recessed fixtures in retail, hospitality and residential spaces.

### Product data

General Information		Luminous Flux in 90° Cone (Rated)	
Cap-Base	GU5.3 [ GU5.3]	Luminous Flux in 90° Cone (Rated)	530 lm
Bulb Shape	MR16 [ 2inch/50mm]	Operating and Electrical	
Nominal Lifetime (Nom)	25000 h	Power (Rated) (Nom)	7 W
Switching Cycle	50000X	Lamp Current (Nom)	720 mA
Technical Type	7-50W	Wattage Equivalent	50 W
Light Technical		Starting Time (Nom)	0.5 s
Color Code	940 [ CCT of 4000K]	Warm Up Time To 60% Light (Nom)	1 s
Beam Angle (Nom)	25 °	Power Factor (Nom)	0.7
Light Distribution	25D [ Medium beam]	Voltage (Nom)	12 V
Initial lumen (Nom)	530 lm	Temperature	
Luminous Flux (Rated) (Nom)	530 lm	T-Case Maximum (Nom)	92 °C
Luminous Intensity (Nom)	2600 cd	Controls and Dimming	
Color Designation	Cool White (CW)	Dimmable	Yes
Rated Beam Angle	25 °	Approval and Application	
Correlated Color Temperature (Nom)	4000 K	Energy Saving Product	Yes
Luminous Efficacy (rated) (Nom)	76 lm/W	Suitable For Accent Lighting	Yes
Color Consistency	<6	Energy Efficiency Label (EEL)	Not applicable
Color Rendering Index (Nom)	90		
LLMF At End Of Nominal Lifetime (Nom)	70 %		

Datasheet, 2016, November 14

data subject to change

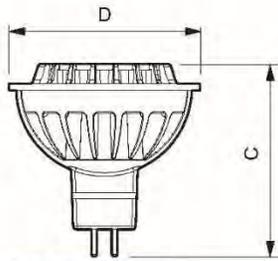
# Section 6.0 – Appendix A – Lighting

## MR16/GU10/PAR16 LED

Energy Consumption kWh/1000 h	8 kWh
<b>Product Data</b>	
Order product name	7MR16/LED/F25/840/DIM AF2 10/1
EAN/UPC - Product	048877481577
Order code	481574

Numerator - Quantity Per Pack	1
Numerator - Packs per outer box	10
Material Nr. (12NC)	929001153034
Net Weight (Piece)	0.045 kg

### Dimensional drawing



LED D 7-35W 840 MR16 24D

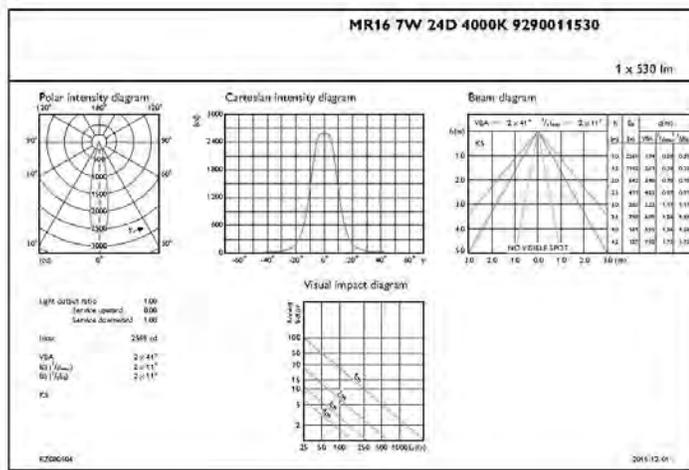
Product	D	C
7MR16/LED/F25/840/DIM AF2 10/1	50.5 mm	50.5 mm

# Section 6.0 – Appendix A – Lighting

## MR16/GU10/PAR16 LED

### Photometric data

Accent Lighting - Spots



# Section 6.0 – Appendix A – Lighting



## LED InstantFit Lamps

### 10T8 LED/48-4000 IF 1PK 10/1

Philips LED T8 InstantFit Lamps are an ideal energy saving choice for existing linear fluorescent fixtures.

#### Product data

General Information		Voltage (Nom)	
Cap-Base	G13 [ Medium Bi-Pin Fluorescent]	120-277V; 347 V	
Nominal Lifetime (Nom)	70000 h	Temperature	
Switching Cycle	50000X	T-Ambient (Max)	45 °C
B50L70	70000 h	T-Ambient (Min)	-20 °C
Light Technical		T-Storage (Max)	65 °C
Color Code	841 [ CCT of 4100K (841)]	T-Storage (Min)	-40 °C
Initial lumen (Nom)	1600 lm	T-Case Maximum (Nom)	50 °C
Luminous Flux (Rated) (Nom)	1600 lm	Controls and Dimming	
Correlated Color Temperature (Nom)	4000 K	Dimmable	No
Color Consistency	<6	Mechanical and Housing	
Color Rendering Index (Nom)	82	Product Length	1200 mm
LLMF At End Of Nominal Lifetime (Nom)	70 %	Approval and Application	
Operating and Electrical		Energy Saving Product	Yes
Input Frequency	20000-120000 Hz	Approbation Marks	UL certificate RoHS compliance
Power (Rated) (Nom)	10 W	Product Data	
Lamp Current (Max)	340 mA	Order product name	10T8 LED/48-4000 IF 1PK 10/1
Lamp Current (Min)	110 mA	EAN/UPC - Product	046677473990
Starting Time (Nom)	0.5 s	Order code	473990
Warm Up Time to 80% Light (Nom)	0.5 s	Numerator - Quantity Per Pack	1
Power Factor (Nom)	0.9		

Datasheet, 2017, November 8

data subject to change

# Section 6.0 – Appendix A – Lighting

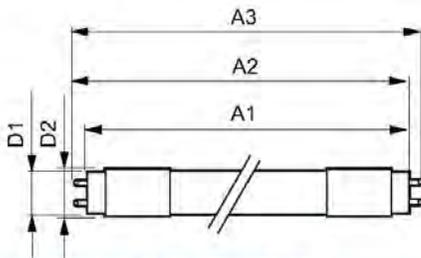
## LED InstantFit Lamps

Numerator - Packs per outer box	10
Material Nr. (12NC)	929001397404
Net Weight (Piece)	0.230 kg

### Warnings and Safety

- Perform a visual inspection to ensure lamp holders (or sockets) are not damaged or loose. If the lamp holders (or sockets) are damaged, corroded, charred, blackened or loose, contact a qualified electrician for proper replacement.
- Please refer to the ballast compatibility guide located at [www.philips.com/instantfit](http://www.philips.com/instantfit).

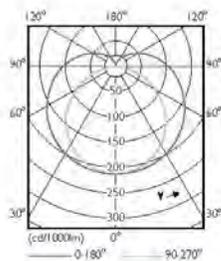
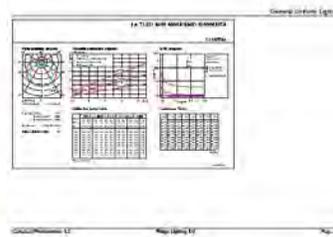
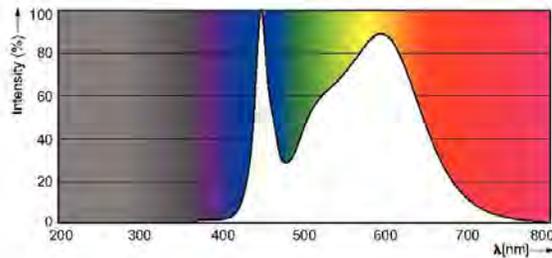
### Dimensional drawing



TLED 1200mm 120V 10-32W 1600lm 4000K G13

Product	D1	D2	A1	A2	A3
10TB LED/48-4000-IF 1PK	25.7 mm	26.3 mm	1198.1 mm	1205.2 mm	1212.3 mm
	10/1				

### Photometric data

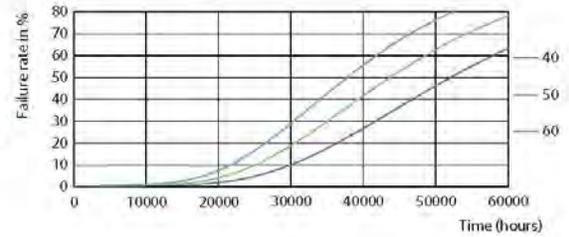
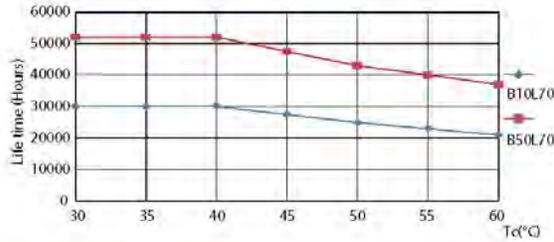


LEDtube 10W G13 B27 IF 1PK

# Section 6.0 – Appendix A – Lighting

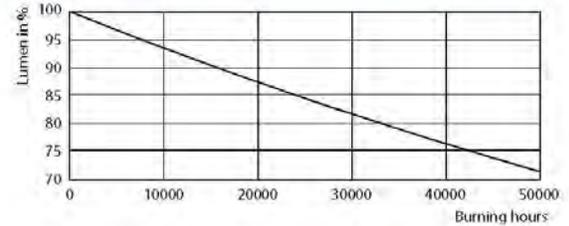
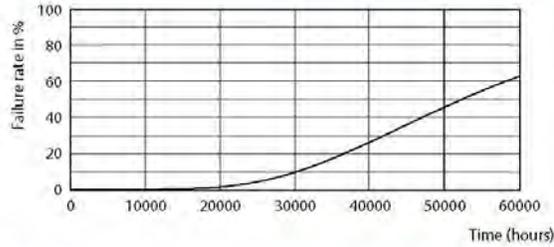
## LED InstantFit Lamps

### Lifetime



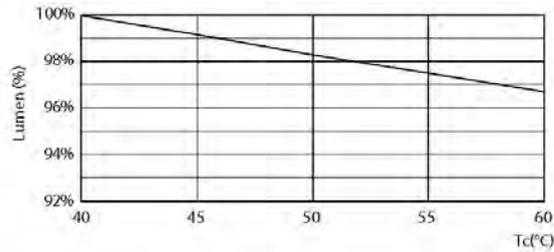
LEDtube 10W G13 827-850 IF 1PK

LEDtube 10W G13 827-850 IF 1PK



LEDtube 10W G13 827-850 IF 1PK

LEDtube 10W G13 827-850 IF 1PK



LEDtube 10W G13 827-850 IF 1PK

# Section 6.0 – Appendix A – Lighting

LED InstantFit Lamps



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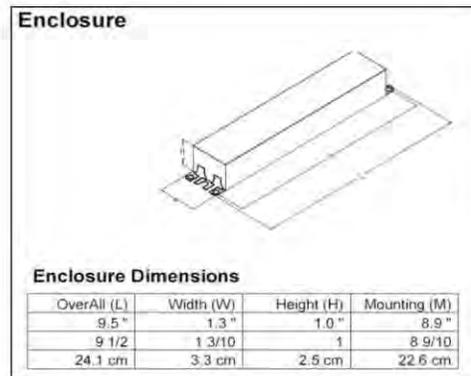
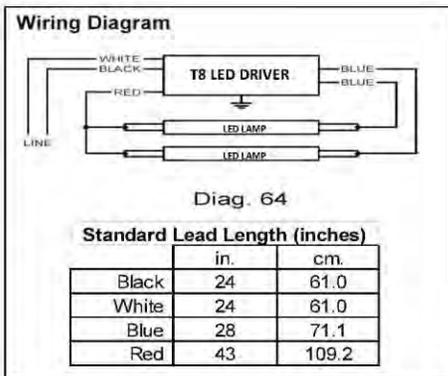
# Section 6.0 – Appendix A – Lighting



ICN-2P16-TLED-N	
Brand Name	CENTIUM
Driver Type	T8 LED Electronic
Lamp Connection	Parallel
Input Voltage	120-277V
Input Frequency	50/60 Hz
Status	Active

## Electrical Specifications

Compatible Lamp Information					Driver Specifications @120V/@277V							
T8 LED Lamp Brand	T8 LED Lamp Description	T8 LED Lamp Product No.	T8 LED Lamp Model No.	T8 LED Lamp Ordering Code	Bare Lamp Watts (W)	Nom. Initial Lumens	Min. Start Temp (°F/°C)	Num. of Lamps	Input Current (A)	Input Power (W)	Max THD%	Power Factor
Philips	LED InstantFit T8 - 4'	453589	9290011239	12T8/48-3000 IF 10/1	12	1500	-13/-25	2	0.21/0.09	25	10	0.99/0.96
		453597	9290011240	12T8/48-3500 IF 10/1					1500			
		453605	9290011241	12T8/48-4000 IF 10/1					1600			
		453613	9290011242	12T8/48-5000 IF 10/1					1650			
Philips	LED InstantFit T8 - 4' High Output	456897	9290011585	15T8/48-3000 IF 10/1	15	2000	-13/-25	2	0.28/0.12	33	10	0.99/0.97
		456905	9290011586	15T8/48-3500 IF 10/1					2000			
		456913	9290011587	15T8/48-4000 IF 10/1					2100			
		456921	9290011588	15T8/48-5000 IF 10/1					2100			
Philips	LED InstantFit T8 - 4' High Output	434860	9290002880	16.5T8/48-3000 IF 10/1	16.5	2000	-13/-25	2	0.33/0.14	40	10	0.99/0.97
		434878	9290002881	16.5T8/48-3500 IF 10/1					2000			
		434886	9290002882	16.5T8/48-4000 IF 10/1					2100			
		434894	9290002883	16.5T8/48-5000 IF 10/1					2150			
Philips	LED InstantFit T8 U-Bent -6" High Output	452664	9290011196	16.5T8/22.5-3000 IF-6J 10/1	16.5	2000	-13/-25	2	0.33/0.14	40	10	0.99/0.97
		452672	9290011197	16.5T8/22.5-3500 IF-6J 10/1					2000			
		452680	9290011198	16.5T8/22.5-4000 IF-6J 10/1					2100			
		452698	9290011199	16.5T8/22.5-5000 IF-6J 10/1					2150			
Philips	LED InstantFit T8 - 3'	452052	9290011183	10.5T8/36-3000 IF 10/1	10.5	1100	-13/-25	2	0.20/0.09	24	10	0.99/0.95
		452060	9290011184	10.5T8/36-3500 IF 10/1					1160			
		452078	9290011185	10.5T8/36-4000 IF 10/1					1200			
		452086	9290011186	10.5T8/36-5000 IF 10/1					1270			
Philips	LED InstantFit T8 - 2'	452011	9290011179	8.5T8/24-3000 IF 10/1	8.5	950	-13/-25	2	0.18/0.08	21	10	0.99/0.94
		452029	9290011180	8.5T8/24-3500 IF 10/1					1040			
		452037	9290011181	8.5T8/24-4000 IF 10/1					1050			
		452045	9290011182	8.5T8/24-5000 IF 10/1					1100			



Revised: 07/28/15

Data is based on tests performed by Philips Lighting NA in a controlled environment and is representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

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# Section 6.0 – Appendix A – Lighting



<b>ICN-2P16-TLED-N</b>	
Brand Name	<b>CENTIUM</b>
Driver Type	<b>T8 LED Electronic</b>
Lamp Connection	<b>Parallel</b>
Input Voltage	<b>120-277V</b>
Input Frequency	<b>50/60 Hz</b>
Status	<b>Active</b>

## Electrical Specifications

### Notes:

#### Section I - Physical Characteristics

- 1.1 Driver shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.
- 1.2 Driver shall be provided with integral leads color coded per ANSI C82.11.

#### Section II - Performance Requirements

- 2.1 Driver shall energize compatible LED lamps within 1 second after mains power is applied.
- 2.2 Driver shall provide Independent Lamp Operation (ILO) allowing remaining lamp(s) to maintain full light output when one or more lamps fail.
- 2.3 Driver shall contain auto restart circuitry in order to restart lamps without resetting power.
- 2.4 Driver shall operate from a 50Hz or 60 Hz AC input source of 120V through 277V with sustained variations of +/- 10% (voltage and frequency).
- 2.5 Driver shall be high frequency electronic type and operate lamps at frequencies above 42 kHz to avoid interference with infrared devices and eliminate visible flicker.
- 2.6 Driver shall have a Power Factor of 0.94 or above when operating the maximum rated number of compatible lamps and 0.88 or above when operating the minimum rated number of compatible lamps.
- 2.7 Driver input current shall Total Harmonic Distortion (THD) of 10% or less when operating the maximum rated number of compatible lamps and 15% or less when operating the minimum rated number of compatible lamps.
- 2.8 Driver shall have a Class A sound rating.
- 2.9 Driver shall have a minimum starting temperature of -13°F / -25°C.
- 2.10 Driver shall tolerate sustained open circuit and short circuit output conditions.
- 2.11 Driver shall be capable of operating lamps remotely and in tandem for wire lengths up to 20 ft.
- 2.12 Driver shall be suitable of operation in up to a 45°C ambient temperature.

#### Section III - Regulatory Requirements

- 3.1 Driver shall not contain any Polychlorinated Biphenyl (PCB).
- 3.2 Driver shall be Underwriters Laboratories (UL) Recognized, Class P, and suitable for Damp and Dry conditions, and CSA Certified where applicable.
- 3.3 Driver shall comply with ANSI C62.41 Category A Transient protection.
- 3.4 Driver shall comply with the requirements of the Federal Communication Commission (FCC) rules and regulations, Title 47, CFR part 15, Non-Consumer (Class A) for EMI/RFI (conducted and radiated).
- 3.5 Driver shall comply with NEMA 410 for in-rush current limits.

#### Section IV - Other

- 4.1 Driver shall be manufactured in a factory certified to ISO 9001 Quality System Standards.
- 4.2 Driver shall carry a five year warranty from date of manufacture against defects in material and workmanship when operating in a 45°C ambient.

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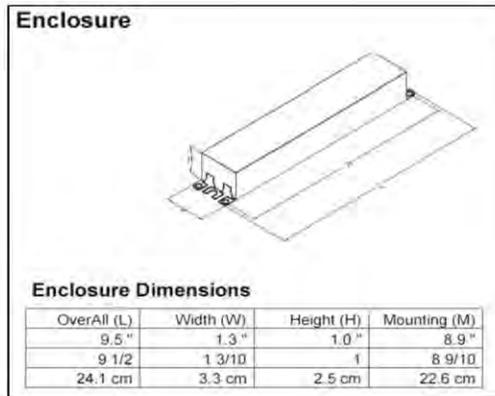
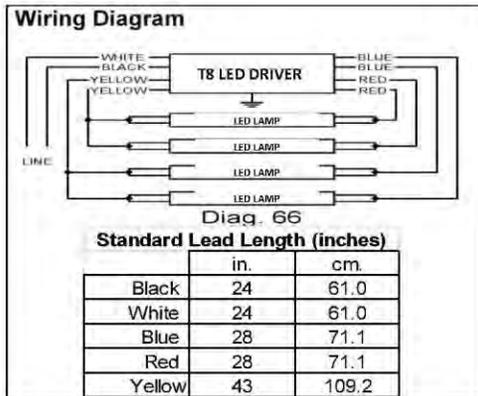
# Section 6.0 – Appendix A – Lighting



ICN-4P16-TLED-N	
Brand Name	CENTIUM
Driver Type	T8 LED Electronic
Lamp Connection	Parallel
Input Voltage	120-277V
Input Frequency	50/60 Hz
Status	Active

## Electrical Specifications

Compatible Lamp Information						Driver Specifications @120V/@277V						
T8 LED Lamp Brand	T8 LED Lamp Description	T8 LED Lamp Product No.	T8 LED Lamp Model No.	T8 LED Lamp Ordering Code	Bare Lamp Watts (W)	Nom. Initial Lumens	Min. Start Temp (°F/°C)	Num. of Lamps	Input Current (A)	Input Power (W)	Max THD%	Power Factor
Philips	LED InstantFit T8 - 4'	453589	9290011239	12T8/48-3000 IF 10/1	12	1500	-13/-25	4	0.41/0.18	49	10	0.99/0.96
		453597	9290011240	12T8/48-3500 IF 10/1								
		453605	9290011241	12T8/48-4000 IF 10/1								
		453613	9290011242	12T8/48-5000 IF 10/1								
Philips	LED InstantFit T8 - 4' High Output	456897	9290011585	15T8/48-3000 IF 10/1	15	2000	-13/-25	4	0.51/0.22	61	10	0.99/0.97
		456905	9290011586	15T8/48-3500 IF 10/1								
		456913	9290011587	15T8/48-4000 IF 10/1								
		456921	9290011588	15T8/48-5000 IF 10/1								
Philips	LED InstantFit T8 - 4' High Output	434860	9290002880	16.5T8/48-3000 IF 10/1	16.5	2000	-13/-25	4	0.60/0.26	71	10	0.99/0.97
		434878	9290002881	16.5T8/48-3500 IF 10/1								
		434886	9290002882	16.5T8/48-4000 IF 10/1								
		434894	9290002883	16.5T8/48-5000 IF 10/1								
Philips	LED InstantFit T8 - 3'	452052	9290011183	10.5T8/36-3000 IF 10/1	10.5	1100	-13/-25	4	0.38/0.17	45	10	0.99/0.95
		452060	9290011184	10.5T8/36-3500 IF 10/1								
		452078	9290011185	10.5T8/36-4000 IF 10/1								
		452086	9290011186	10.5T8/36-5000 IF 10/1								
Philips	LED InstantFit T8 - 2'	452011	9290011179	8.5T8/24-3000 IF 10/1	8.5	950	-13/-25	4	0.33/0.15	39	10	0.99/0.94
		452029	9290011180	8.5T8/24-3500 IF 10/1								
		452037	9290011181	8.5T8/24-4000 IF 10/1								
		452045	9290011182	8.5T8/24-5000 IF 10/1								



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# Section 6.0 – Appendix A – Lighting



ICN-4P16-TLED-N	
Brand Name	CENTIUM
Driver Type	T8 LED Electronic
Lamp Connection	Parallel
Input Voltage	120-277V
Input Frequency	50/60 Hz
Status	Active

## Electrical Specifications

### Notes:

#### Section I - Physical Characteristics

- 1.1 Driver shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.
- 1.2 Driver shall be provided with integral leads color coded per ANSI C82.11.

#### Section II - Performance Requirements

- 2.1 Driver shall energize compatible LED lamps within 1 second after mains power is applied.
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- 2.5 Driver shall be high frequency electronic type and operate lamps at frequencies above 42 kHz to avoid interference with infrared devices and eliminate visible flicker.
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- 2.7 Driver input current shall Total Harmonic Distortion (THD) of 10% or less when operating the maximum rated number of compatible lamps and 15% or less when operating the minimum rated number of compatible lamps.
- 2.8 Driver shall have a Class A sound rating.
- 2.9 Driver shall have a minimum starting temperature of -13°F / -25°C.
- 2.10 Driver shall tolerate sustained open circuit and short circuit output conditions.
- 2.11 Driver shall be capable of operating lamps remotely and in tandem for wire lengths up to 20 ft.
- 2.12 Driver shall be suitable of operation in up to a 45°C ambient temperature.

#### Section III - Regulatory Requirements

- 3.1 Driver shall not contain any Polychlorinated Biphenyl (PCB).
- 3.2 Driver shall be Underwriters Laboratories (UL) Recognized, Class P, and suitable for Damp and Dry conditions; and CSA Certified where applicable.
- 3.3 Driver shall comply with ANSI C62.41 Category A Transient protection.
- 3.4 Driver shall comply with the requirements of the Federal Communication Commission (FCC) rules and regulations, Title 47, CFR part 15, Non-Consumer (Class A) for EMI/RFI (conducted and radiated).
- 3.5 Driver shall comply with NEMA 410 for in-rush current limits.

#### Section IV - Other

- 4.1 Driver shall be manufactured in a factory certified to ISO 9001 Quality System Standards.
- 4.2 Driver shall carry a five year warranty from date of manufacture against defects in material and workmanship when operating in a 45°C ambient.

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# Section 6.0 – Appendix A – Lighting



## LED InstantFit Lamps

### 16.5PL-LED/24-4000 IF 10/1

Philips InstantFit LED Lamp, Long Compact (16.5W / 2100 lm / 4000K)

Philips LED T8 InstantFit Lamps are an ideal energy saving choice for existing linear fluorescent fixtures.

#### Product data

General Information		Power (Rated) (Nom)	
Cap-Base	2G11 [ 2G11]		16.5 W
Main Application	Industrial	Starting Time (Nom)	0.5 s
Nominal Lifetime (Nom)	40000 h	Warm Up Time To 60% Light (Nom)	instant full light
Switching Cycle	50000X	Power Factor (Nom)	0.9
B50L70	40000 h	Voltage (Nom)	120-277 V
Light Technical		Temperature	
Color Code	841 [ CCT of 4100K [B41]]	T-Ambient (Max)	45 °C
Beam Angle (Nom)	160 °	T-Ambient (Min)	-20 °C
Initial lumen (Nom)	2100 lm	T-Storage (Max)	65 °C
Luminous Flux (Rated) (Nom)	2100 lm	T-Storage (Min)	-40 °C
Rated Beam Angle	160 °	T-Case Maximum (Nom)	65 °C
Correlated Color Temperature (Nom)	4000 K	Controls and Dimming	
Color Consistency	<6	Dimmable	No
Color Rendering Index (Nom)	82	Mechanical and Housing	
LLMF At End Of Nominal Lifetime (Nom)	70 %	Product Length	500 mm
Operating and Electrical			
Input Frequency	50 to 60 Hz		

Datasheet, 2016, December 21

data subject to change

# Section 6.0 – Appendix A – Lighting

## LED InstantFit Lamps

### Approval and Application

Energy Saving Product	Yes
Suitable For Accent Lighting	No
Energy Efficiency Label (EEL)	A+
Approval Marks	CE marking UL certificate RoHS compliance KEMA Keur certificate
Energy Consumption kWh/1000 h	21 kWh

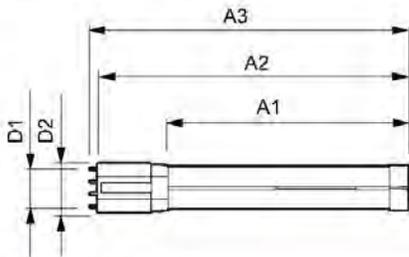
### EAN/UPC - Product

Order code	046877456858
Order code	458857
Numerator - Quantity Per Pack	1
Numerator - Packs per outer box	10
Material Nr. (12NC)	929001151504
Net Weight (Pieces)	0.170 kg

### Product Data

Order product name	18.5PL-LED/24-4030 IF 10/1
--------------------	----------------------------

### Dimensional drawing



LEDtube 500mm 18.5W/840

Product	D1	D2	A1	A2	A3
---------	----	----	----	----	----



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# Section 6.0 – Appendix A – Lighting



Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

Philips EvoBase LED retrofit kit is an energy efficient LED alternative to traditional linear fluorescent troffers. Not only does it offer energy savings, it also helps reduce maintenance costs due to its long lifetime. Simple construction helps decrease the installation time meaning you can have an LED solution in your ceiling in just minutes.

**Ordering guide (continued on next page)**

Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs) <sup>2</sup>	Approx. Lumens <sup>2</sup>	CRI	Color Temperature (K)	Approximate Delivered Lumens <sup>4</sup>
<b>2'x4' SKUs</b>								
509513	EvoBase 2X4 M 47L 42W 835 1 MK10 7 G1	42	120	70,000	4700	80	3500	4230
509879	EvoBase 2X4 M 47L 43W 835 5 MK10 7 G1	43	277	70,000	4700	80	3500	4230
509141	EvoBase 2X4 M 47L 41W 835 2 0-10 7 G1	41	120-277	70,000	4700	80	3500	4230
509158	EvoBase 2X4 M 48L 42W 840 1 MK10 7 G1	42	120	70,000	4800	80	4000	4320
509166	EvoBase 2X4 M 48L 43W 840 5 MK10 7 G1	43	277	70,000	4800	80	4000	4320
509174	EvoBase 2X4 M 48L 41W 840 2 0-10 7 G1	41	120-277	70,000	4800	80	4000	4320
509182	EvoBase 2X4 M 48L 42W 850 1 MK10 7 G1	42	120	70,000	4800	80	5000	4320
509190	EvoBase 2X4 M 48L 43W 850 5 MK10 7 G1	43	277	70,000	4800	80	5000	4320
509208	EvoBase 2X4 M 48L 41W 850 2 0-10 7 G1	41	120-277	70,000	4800	80	5000	4320
510689	EvoBase 2X4 M 39L 33W 835 1 MK10 7 G1	33	120	70,000	3900	80	3500	3510
510677	EvoBase 2X4 M 39L 34W 835 5 MK10 7 G1	34	277	70,000	3900	80	3500	3510
510685	EvoBase 2X4 M 39L 32W 835 2 0-10 7 G1	32	120-277	70,000	3900	80	3500	3510
510693	EvoBase 2X4 M 40L 33W 840 1 MK10 7 G1	33	120	70,000	4000	80	4000	3600
510701	EvoBase 2X4 M 40L 34W 840 5 MK10 7 G1	34	277	70,000	4000	80	4000	3600
510719	EvoBase 2X4 M 40L 34W 840 2 0-10 7 G1	34	120-277	70,000	4000	80	4000	3600
510727	EvoBase 2X4 M 40L 33W 850 1 MK10 7 G1	33	120	70,000	4000	80	5000	3600
510735	EvoBase 2X4 M 40L 34W 850 5 MK10 7 G1	34	277	70,000	4000	80	5000	3600
510743	EvoBase 2X4 M 40L 34W 850 2 0-10 7 G1	34	120-277	70,000	4000	80	5000	3600
511113	EvoBase 2X4 M 47L 42W 835 2SR 7 G1	42	120-277	70,000	4700	80	3500	4230
511139	EvoBase 2X4 M 48L 42W 840 2SR 7 G1	42	120-277	70,000	4800	80	4000	4320
511212	EvoBase 2X4 M 48L 42W 850 2SR 7 G1	42	120-277	70,000	4800	80	5000	4320

See footnotes on page 4. Note: 0-10 models are MTS all others are MTQ



# Section 6.0 – Appendix A – Lighting

## EvoBase LED retrofit kit 2'x2' and 2'x4'

Ordering guide (continued from previous page)

Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	CRI	Color Temperature (K)	Approximate Delivered Lumens <sup>4</sup>
<b>2'x2' SKUs</b>								
509216	EvoBase 2X2 M 35L 31W 835 1 MK10 7 GI	31	120	70,000	3500	80	3500	3150
509315	EvoBase 2X2 M 35L 32W 835 5 MK10 7 GI	32	277	70,000	3500	80	3500	3150
509349	EvoBase 2X2 M 35L 30W 835 2 0-10 7 GI	30	120-277	70,000	3500	80	3500	3150
509372	EvoBase 2X2 M 36L 31W 840 1 MK10 7 GI	31	120	70,000	3600	80	4000	3240
509380	EvoBase 2X2 M 36L 32W 840 5 MK10 7 GI	32	277	70,000	3600	80	4000	3240
509414	EvoBase 2X2 M 36L 30W 840 2 0-10 7 GI	30	120-277	70,000	3600	80	4000	3240
509588	EvoBase 2X2 M 36L 31W 850 1 MK10 7 GI	31	120	70,000	3600	80	5000	3240
509638	EvoBase 2X2 M 36L 32W 850 5 MK10 7 GI	32	277	70,000	3600	80	5000	3240
509661	EvoBase 2X2 M 36L 30W 850 2 0-10 7 GI	30	120-277	70,000	3600	80	5000	3240
510750	EvoBase 2X2 M 29L 24W 835 1 MK10 7 GI	24	120	70,000	2900	80	3500	2610
510800	EvoBase 2X2 M 29L 25W 835 5 MK10 7 GI	25	277	70,000	2900	80	3500	2610
510818	EvoBase 2X2 M 29L 25W 835 2 0-10 7 GI	25	120-277	70,000	2900	80	3500	2610
510826	EvoBase 2X2 M 30L 24W 840 1 MK10 7 GI	24	120	70,000	3000	80	4000	2700
510834	EvoBase 2X2 M 30L 25W 840 5 MK10 7 GI	25	277	70,000	3000	80	4000	2700
510842	EvoBase 2X2 M 30L 25W 840 2 0-10 7 GI	25	120-277	70,000	3000	80	4000	2700
510859	EvoBase 2X2 M 30L 24W 850 1 MK10 7 GI	24	120	70,000	3000	80	5000	2700
510933	EvoBase 2X2 M 30L 25W 850 5 MK10 7 GI	25	277	70,000	3000	80	5000	2700
511097	EvoBase 2X2 M 30L 25W 850 2 0-10 7 GI	25	120-277	70,000	3000	80	5000	2700
511220	EvoBase 2X2 M 35L 31W 835 2 SR 7 GI	31	120-277	70,000	3500	80	3500	3150
511279	EvoBase 2X2 M 36L 31W 840 2 SR 7 GI	31	120-277	70,000	3600	80	4000	3240
511295	EvoBase 2X2 M 36L 31W 850 2 SR 7 GI	31	120-277	70,000	3600	80	5000	3240

See footnotes on page 4. Note: 0-10 models are MTS all others are MTO

### Application

- A highly efficient, LED retrofit kit designed to upgrade recessed linear fluorescent troffers.
- Provides fluorescent-like uniform light distribution.
- Excellent color rendering with a CRI above 80.
- Extremely high efficiencies up to 120 lumens per watt.
- LEDs are an excellent source for use with controls since dimming or frequent switching does not degrade the performance or life of the source.
- Designed to be used in lensed fluorescent troffers with a minimum depth of 3".
- High efficiency source and luminaire design help significantly reduce energy consumption and more easily comply with known energy codes.
- Helps meet regulation requirements such as ASHRAE 90.1 and Title 24 when matched with suitable controls.

### Construction/Finish

- Simple design allows for quick installation (under 4 minutes) in existing luminaire without the need to break the ceiling plenum.
- Minimum depth of only 3" necessary to allow proper clearance and installation of the EvoBase.

### Electrical

- Multiple driver options available
  - 0-10V dimming satisfies universal voltage requirements.
  - Mark10 leading edge dimming offers ability to dim without pulling neutral wires making it compatible with more existing systems.
- 5 year limited warranty includes all components of the retrofit kit, including driver, LED board and nonelectrical components.\*\*
- Listed with ETL and Design Lights Consortium to ensure quality performance and safety standards are met.
- High efficiency LEDs have a minimum 70,000 hour rated life (L<sub>70</sub>).

### Enclosure

- Diffuser requires no frames or fasteners and can be easily removed from below without tools if needed.

### Accessories

- Suitable for use with Philips 503441 emergency backup.
- Suitable for use with a wide range of control systems.

Prod. No.	Description
503441	EvoKit Field Installed Emergency Battery Backup

# Section 6.0 – Appendix A – Lighting

## EvoBase LED retrofit kit 2'x2' and 2'x4'

### EvoBase with new SimpleSet Technology for wireless lumen level programming

EvoBase with new SimpleSet Technology allows the maximum lumen level to be set prior to installation using a smartphone-based app without requiring power to the luminaire. Available in the O-10V and SR versions only. The app can be downloaded at Google Play. Distributors can set lumen levels prior to shipping, and contractors can set lumen levels prior to installation. Lumen level is quickly and easily set in two steps:



Step 1: Place the smartphone next to the NFC antenna on the driver.

Step 2: Follow the on-screen instructions.

### EvoBaseSR with Xitanium SR for connected lighting solutions

EvoBaseSR is a new platform that allows users to choose different control platforms to suit their needs and budget; from simple occupancy and daylight sensing to cloud-connected data-reporting sensing. This empowers users to fine-tune their energy use for reduced energy costs. Contact your Philips representative for a current list of approved sensors. Sensors are connected in the field with just a few simple steps:

Philips EasySense CMP sensor

Model: 929000755213/510651

The Philips EasySense CMP remote mounted sensor combines occupancy sensing, daylight harvesting and institutional tuning in a single, compact package for easy assembly. EasySense operates with the established Xitanium SR standard driver to make a simple two-wire connection between the sensor and the driver, eliminating the need for multiple components and auxiliary devices. The result is a cost-effective and easy-to-design-in solution which is ideal for energy-savings and code-compliance strategies. Up to four kits can be connected to a single sensor. An intuitive smartphone app makes configuration during installation fast and easy. The app and password information can be found by following the link at the bottom of the webpage at [Philips.com/evokit](http://Philips.com/evokit) or [Philips.com/easysense](http://Philips.com/easysense). The app is named PhilipsFieldApps.

Visit [www.philips.com/easysense](http://www.philips.com/easysense) for more detailed info.



# Section 6.0 – Appendix A – Lighting

## EvoBase LED retrofit kit 2'x2' and 2'x4'

### Dimensions

Size	A Housing Length	B Housing Width	C Height
2X2	20.906"	12.008"	3"
2X4	44.921"	12.008"	3"



### Energy Saving Solution – 2X4

Present Wattage	85 W
x Annual Operating Hours	4,380 hrs
	= 372,300 watt-hours
÷1,000	= 372.3 kWh per year
x kWh rate of \$0.11	= \$40.95 per year
x 125 fixtures	= \$5,119.13 annual energy cost per space

Present Wattage	41 W
x Annual Operating Hours	4,380 hrs
	= 179,580 watt-hours
÷1,000	= 179.58 kWh per year
x kWh rate of \$0.11	= \$19.75 per year
x 125 fixtures	= \$2,468.75 annual energy cost per space

**Total Estimated Annual Savings<sup>1</sup> = \$2,650.38**

<sup>1</sup> Based on 125 fixtures per space operating 4,380 hours a year. 125 fixtures is roughly equivalent to a 10,000 square foot space. kWh rates will vary.

### FOOTNOTES:

- 1) Please refer to the energy saving chart on page 4 for details.
- 2) L<sub>70</sub> 72,000 hours @ 35°C based on TM21 and LM80.
- 3) Based on photometric testing consistent with IES LM-79.
- 4) When installed in a reference luminaire assuming 90% optical efficiency.

\* "Made-To-Order" product is not kept in inventory. Minimum quantities will apply.

\*\* These products do not meet DLC criteria.

\*\*\* Please visit [www.philips.com/warranties](http://www.philips.com/warranties) for full details.

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Philips Lighting North America Corporation  
200 Franklin Square Drive, Somerset, NJ 08873  
Tel: 855-486-2216

Philips Lighting Canada Ltd.  
281 Hillmount Rd, Markham, ON, Canada L6C 2S3  
Tel: 800-668-9008

EvoBase\_2X2\_2X4\_104/16\_page 4 of 4

# Section 6.0 – Appendix A – Lighting

## 6" CDL 21W TITANIUM LED SERIES









PRO



Patent Pending

-  For **new** construction installation
-  Universal housing compatibility – IC-Rated
-  Adjustable lumen output – 3 defined light levels
-  Easy fit installation – Spring-action housing clips
-  Universal voltage 120-277V
-  Available in 2700K, 3000K, 3500K & 4000K CCT

  
40,000 H

  
UNIVERSAL

  
ADJUSTABLE

  
WARRANTY

  
CRI (Ra)

  
BEAM ANGLE











### DOWNLIGHT PRODUCT FEATURES

Adjustable Lumen Output



Fluorescent Equivalence Table		
Power	Lumens	Equivalent
LOW-8.5W	700	1X18W
MED-13.5W	1000	1X28W / 2X13W
HIGH-21W	1500	1X32W / 2X18W

This downlight features adjustable lumen output for three distinct lumen levels equivalent to various CFL lamp combinations. Simply adjust the lamp power to the desired lumen output by sliding the selector switch on top of the fixture.

Easy-Fit Installation

The adjustable housing clips allow for installation in a large range of commercial and architectural housings ranging from 6.0"-7.4" (153-190mm). These spring-action clips push up easily and fit securely for both retrofit and new construction installations.





Min. 6.0" (153mm)  
Max. 7.4" (190mm)

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# Section 6.0 – Appendix A – Lighting

## 6" CDL 21W TITANIUM LED SERIES



### SIMPLE RETROFIT OR ECONOMICAL NEW CONSTRUCTION INSTALLATION

#### Retrofit Installation



Attach safety clip



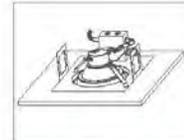
Bypass ballast & wire to j-box



Adjust lumens to desired output



Push clips up & install into fixture



Ensure fixture is flush. Installation is complete

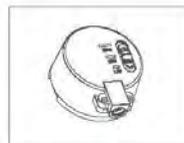
#### New Construction Installation



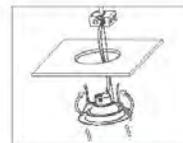
Attach safety clip



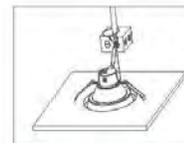
Wire to j-box



Adjust lumens to desired output



Push clips up & install into opening



Ensure fixture is flush. Installation is complete

### SPECIFICATIONS

Product Model	57868 21CDLA6/827/277V/R	57869 21CDLA6/830/277V/R	57870 21CDLA6/835/277V/R	57871 21CDLA6/840/277V/R
Type	6" Downlight	6" Downlight	6" Downlight	6" Downlight
Power (W)	8.5 / 13.5 / 21	8.5 / 13.5 / 21	8.5 / 13.5 / 21	8.5 / 13.5 / 21
Voltage - Frequency	120-277V 60Hz	120-277V 60Hz	120-277V 60Hz	120-277V 60Hz
Color Temp. (ANSI)	Soft White 2700K	Warm White 3000K	Neutral White 3500K	Cool White 4000K
CRI (Ra) (typ.)	80	80	80	80
Typical lumens (lm)	650 / 930 / 1400	700 / 1000 / 1500	700 / 1000 / 1500	700 / 1000 / 1500
Efficacy (LPW)	76 / 69 / 67	82 / 74 / 71	82 / 74 / 71	82 / 74 / 71
Beam Angle	110°	110°	110°	110°
Dimmable	No	No	No	No
Power Factor	0.9	0.9	0.9	0.9
Temperature Rating	-13°F/-25°C - 95°F/35°C	-13°F/-25°C - 95°F/35°C	-13°F/-25°C - 95°F/35°C	-13°F/-25°C - 95°F/35°C
Rated Lifetime - L70 (hrs.)	40,000	40,000	40,000	40,000
Dia. x MOL	8.27"x4.02" (210x102mm)	8.27"x4.02" (210x102mm)	8.27"x4.02" (210x102mm)	8.27"x4.02" (210x102mm)
Weight (lb. / g)	1.24lb / 562g	1.24lb / 562g	1.24lb / 562g	1.24lb / 562g

\* Suitable for damp locations. Not for use where directly exposed to weather or water  
 \*\* Full installation guide and more details available on website

# Section 6.0 – Appendix A – Lighting

## 8" CDL 27W TITANIUM LED SERIES









PRO



Patent Pending

-  For retrofit or new construction installation
-  Universal housing compatibility
-  Adjustable lumen output – 3 defined light levels
-  Easy fit installation – Spring-action housing clips
-  Universal voltage 120-277V
-  Available in 2700K, 3000K, 3500K & 4000K CCT

  
40,000 H

  
UNIVERSAL

  
LUMEN OUTPUT  
ADJUSTABLE

  
5 YR  
WARRANTY

  
CRI (Ra)  
80

  
SEMI  
DIRECTIONAL





LM 79

LM 80

TM 21

IES

### COMMERCIAL DOWNLIGHT PRODUCT FEATURES

Adjustable Lumen Output



Fluorescent Equivalence Table		
Power	Lumens	Equivalent
LOW-13W	1000	1X26W / 2X13W
MED-19W	1500	1X32W / 2X18W
HIGH-27W	3000	1X48W / 2X26W

This commercial downlight features adjustable lumen output for three distinct lumen levels equivalent to various CFL lamp combinations. Simply adjust the lamp power to the desired lumen output by sliding the selector switch on top of the fixture.

Easy-Fit Installation

The adjustable housing clips allow for installation in a large range of commercial and architectural housings ranging from 7.6" - 9.4" (195-240mm). These spring-action clips push up easily and fit securely for both retrofit and new construction installations.




Min. 7.6" (195mm)

Max. 9.4" (240mm)

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# Section 6.0 – Appendix A – Lighting

## 8" CDL 27W TITANIUM LED SERIES



### SIMPLE RETROFIT OR ECONOMICAL NEW CONSTRUCTION INSTALLATION

#### Retrofit Installation



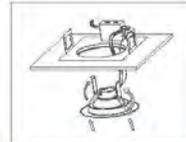
Attach safety clip



Bypass ballast & wire to j-box



Adjust lumens to desired output



Push clips up & install into fixture

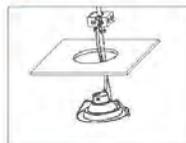


Ensure fixture is flush. Installation is complete

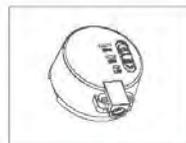
#### New Construction Installation



Attach safety clip



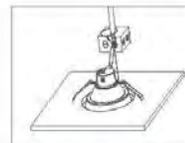
Wire to j-box



Adjust lumens to desired output



Push clips up & install into opening



Ensure fixture is flush. Installation is complete

### SPECIFICATIONS

Product Model	57873 27CDLA8/827/277V	57874 27CDLA8/830/277V	57875 27CDLA8/835/277V	57876 27CDLA8/840/277V
Type	8" Commercial Downlight	8" Commercial Downlight	8" Commercial Downlight	8" Commercial Downlight
Power (W)	12 / 19 / 27	12 / 19 / 27	12 / 19 / 27	12 / 19 / 27
Voltage - Frequency	120-277V 50-60Hz	120-277V 50-60Hz	120-277V 50-60Hz	120-277V 50-60Hz
Color Temp. (ANSI)	Soft White 2700K	Warm White 3000K	Neutral White 3500K	Cool White 4000K
CRI (Ra) (typ.)	80	80	80	80
Typical lumens (lm)	930 / 1400 / 1850	1000 / 1500 / 2000	1000 / 1500 / 2000	1000 / 1500 / 2000
Efficacy (LPW)	78 / 74 / 69	83 / 79 / 74	83 / 79 / 74	83 / 79 / 74
Beam Angle	110°	110°	110°	110°
Dimmable	No	No	No	No
Power Factor	0.9	0.9	0.9	0.9
Temperature Rating	-13°F/-25°C - 95°F/35°C	-13°F/-25°C - 95°F/35°C	-13°F/-25°C - 95°F/35°C	-13°F/-25°C - 95°F/35°C
Rated Lifetime - L70 (hrs.)	40,000	40,000	40,000	40,000
Dia. x MOL	10.24"x3.33" (260x110mm)	10.24"x3.33" (260x110mm)	10.24"x3.33" (260x110mm)	10.24"x3.33" (260x110mm)
Weight (lb. / g)	1.58 lb. / 717g			

\* Suitable for damp locations. Not for use where directly exposed to weather or water  
 \*\* Full installation guide and more details available on website

# Section 6.0 – Appendix A – Lighting

## ALED4T150



Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	150W
120V:	1.31A	Color Temp:	5000K
208V:	0.80A	Color Accuracy:	71 CRI
240V:	0.69A	L70 Lifespan:	100000
277V:	0.60A	Lumens:	18464
Input Watts:	156W	Efficacy:	119 LPW
Efficiency:	96%		

### Technical Specifications

#### Listings

##### UL Listing:

Suitable for wet locations.

##### DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.  
DLC Product Code: P0000175F

##### IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have been received the Department of Energy "Lighting Facts" label.

##### Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

#### LED Characteristics

##### Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

##### LEDs:

Multi-chip, high-output, long-life LEDs

##### Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

##### Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

##### Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

##### Replacement:

Replaces 400W Metal Halide.

#### Construction

##### IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semiCircular distribution with essentially the same candlepower at lateral angles from 90° to 270°

##### Effective Projected Area:

EPA = 0.75

##### Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

##### Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

##### Thermal Management:

Superior thermal management with external "Air-Flow" fins.

##### Housing:

Die-cast aluminum housing, lens frame and mounting arm.

##### IP Rating:

Ingress Protection rating of IP66 for dust and water

##### Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease.

##### Reflector:

Specular vacuum-metallized polycarbonate

##### Gaskets:

High-temperature silicone gaskets

##### Finish:

Formulated for high-durability and long lasting color.

##### Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

##### For use on LEED Buildings:

IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

#### Electrical

##### Drivers:

Two Drivers, Constant Current, Class 2, 2000mA, 100-277V, 50-60Hz. Power Factor 99%

##### THD:

4.7% at 120V, 13.3% at 277V

##### Surge Protection:

4kV

# Section 6.0 – Appendix A – Lighting

## ALED4T150



### Technical Specifications (continued)

#### Other

##### California Title 24:

See ALED4T150/D10, ALED4T150/BL, ALED4T150/PCS, ALED4T150/PCS2, or ALED4T150/PCT for a 2013 California Title 24 compliant product. Any additional component requirements will be listed in the Title 24 section under technical specifications on the product page.

##### Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

#### Buy American Act Compliance:

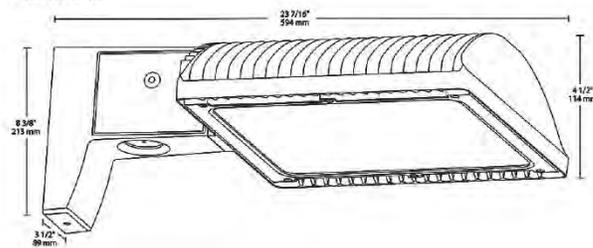
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

#### Optical

##### BUG Rating:

B1 U0 G3

### Dimensions



### Features

- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- Type IV distribution
- 5-year warranty

### Ordering Matrix

Family	Distribution	Wattage	Mounting	Color Temp	Finish	Voltage	Dimming	Control Options
ALED	4T	150						
	2T = Type II	50 = 50W	Blank =	Blank =	Blank =	Blank = 120-277V	Blank =	Blank = No Option
	3T = Type III	78 = 78W	Arm	5000K (Cool)	Bronze	/480 = 480V (not available for 150W)	Standard	/PCS = 120V Swivel Photocell
	4T = Type IV	105 = 105W	SF = Slipfitter	N = 4000K (Neutral)	RG = Roadway Gray		/D10 = 0-10V Dimming	/PCS2 = 277V Swivel Photocell
		125 = 125W		Y = 3000K (Warm)	W = White		/BL = Bi-Level	/PCT = 120-277V Twistlock Photocell (not available for Slipfitter mounting)
		150 = 150W						/PCT4 = 480V Twistlock Photocell (not available for Slipfitter mounting)
		150W						/WS2 = Multi-Level Motion Sensor(50W, 78W and 105W only)
								/WS4 = Multi-Level Motion Sensor(125W and 150W only)
								/LC = Lightcloud Control

# Section 6.0 – Appendix A – Lighting

## SLIM18

## RAB



12, 18 and 26 Watt SLIM wallpacks are ultra efficient and deliver impressive light distribution with a compact low-profile design that's super easy to install as a downlight or uplight.

Color: Bronze

Weight: 4.5 lbs

Project:

Type:

Prepared By:

Date:

### Driver Info

Type:	Constant Current
120V:	0.18A
208V:	0.11A
240V:	0.09A
277V:	0.08A
Input Watts:	21W
Efficiency:	85%

### LED Info

Watts:	18W
Color Temp:	5100K
Color Accuracy:	71 CRI
L70 Lifespan:	100000
Lumens:	2560
Efficacy:	121 LPW

### Technical Specifications

#### Listings

##### UL Listing:

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

##### DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities.  
DLC Product Code: PSPVC3C7

##### ADA Compliant:

SLIM™ is ADA Compliant.

##### Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

##### IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

#### Construction

##### IP Rating:

Ingress Protection rating of IP66 for dust and water

##### Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

##### Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

##### Housing:

Precision die-cast aluminum housing.

##### Mounting:

Heavy-duty mounting bracket with hinged housing for easy installation.

##### Recommended Mounting Height:

Up to 14 ft.

##### Lens:

Tempered glass lens.

##### Reflector:

Specular thermoplastic.

##### Gaskets:

High-temperature silicone

##### Finish:

Formulated for high-durability and long lasting color.

##### Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### LED Characteristics

##### LED:

Multi-chip, long-life LED.

##### Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

##### Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

##### Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

##### Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines for the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

#### Electrical

##### Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz., 4KV surge protection, 500mA, 100-240VAC 0.3-0.15 Amps, 277VAC 0.15 Amps, Power Factor 99%.

#### Other

##### Patents:

The design of the SLIM™ is protected by patents in U.S. Pat D681,864, and pending patents in Canada, China, Taiwan and Mexico.

##### HID Replacement Range:

Replaces 100W Metal Halide.

##### Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

#### Optical

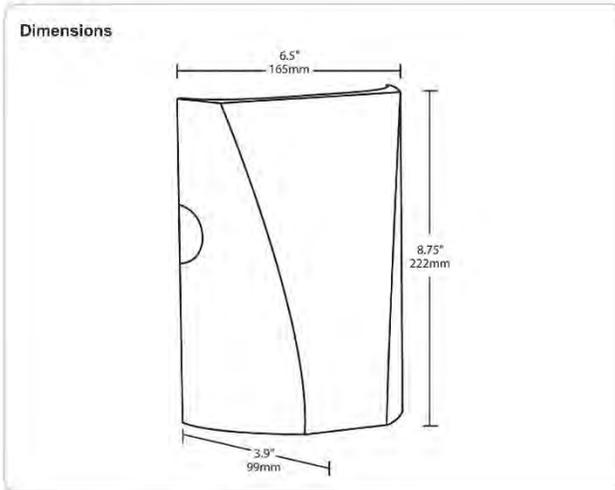
##### BUG Rating:

B1 U0 G0

# Section 6.0 – Appendix A – Lighting

**SLIM18**

**RAB**



- Features**
- Full cutoff, fully shielded LED wallpack
  - Can be used as a downlight or uplight
  - Contractor friendly features for easy installation
  - 100,000-hour LED Life
  - 5-Year Warranty

**Ordering Matrix**

Family	Wattage	Color Temp	Finish	Driver	Options
<b>SLIM</b>	<b>18</b>				
	26 = 26W 18 = 18W 12 = 12W	<b>Blank</b> = 5000K (Cool) N = 4000K (Neutral) Y = 3000K (Warm)	<b>Blank</b> = Bronze W = White	<b>Blank</b> = Standard (120-277V) /D10 = Dimmable	<b>Blank</b> = No Option /PC = 120V Button /PC2 = 277V Button /PCT = 120-277V Twistlock /LC = Lightcloud Controller

# Section 6.0 – Appendix A – Lighting

## VANLED10

**RAB**



Low-profile vandal-resistant fixture covers the footprint of most traditional canopy lights. Available in flat or drop lens with frosted and unfrosted options.

Color: Bronze

Weight: 12.0 lbs

Project:

Type:

Prepared By:

Date:

### Driver Info

Type:	Constant Current
120V:	0.30A
208V:	0.20A
240V:	0.17A
277V:	0.15A
Input Watts:	13W
Efficiency:	76%

### LED Info

Watts:	10W
Color Temp:	5000K
Color Accuracy:	78 CRI
L70 Lifespan:	100000
Lumens:	1681
Efficacy:	128 LPW

## Technical Specifications

### Listings

#### UL Listing:

Suitable for Wet Locations. Covered Ceiling Mount Only.

#### DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.  
DLC Product Code: PMZZWGXX

#### IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

### Electrical

#### Driver:

Class 2, Constant Current, 100-277V, 50-60Hz, 280mA

#### THD:

18% at 277V

### Construction

#### Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

#### Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

#### Housing:

Die-cast aluminum housing and lens frame with (4) 1/2" NPS side conduit entries and weatherproof rear wire plug and access plate

#### Mounting:

Ceiling mount to recessed junction with knockout template or directly to ceiling surface, utilizing side conduit entry points

#### IP Rating:

Ingress Protection rating of IP66 for dust and water

#### Lens:

Vandal-resistant polycarbonate textured opaque for low glare drop lens

#### Reflector:

Semi-specular, vacuum-metallized polycarbonate

#### Gaskets:

High-temperature silicone gaskets

#### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color

#### Green Technology:

Mercury and UV-free, RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

### LED Characteristics

#### LEDs:

Discreet LEDs on PCB board

#### Color Stability:

RAB LEDs exceed industry standards for chromatic stability

#### Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

### Other

#### Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. See our full warranty

#### Replacement:

Replaces up to 50W Metal Halide

#### Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

# Section 6.0 – Appendix A – Lighting

## VANLED10

**RAB**

<p><b>Dimensions</b></p>	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>Fits the footprint of older canopy lights</li> <li>Vandal resistant and UV resistant lens</li> <li>Ultra-high efficiency</li> <li>Clean, contemporary, low-profile design</li> <li>Available with drop lens or flat lens</li> <li>IP66 rated, keeps dust, bugs and water out</li> <li>Photo and motion sensor options available</li> </ul>
--------------------------	--

**Ordering Matrix**

Family	Wattage	Color Temp	Lens	Motion Sensor & Finish	Driver Options	Photocell Options
VANLED	10 = 10W 20 = 20W 40 = 40W 52 = 52W 65 = 65W 75 = 75W	<b>Blank</b> = 5000K (Cool)  <b>N</b> = 4000K (Neutral)  <b>Y</b> = 3000K (Warm)	<b>Blank</b> = Drop lens  <b>F</b> = Flat lens  <b>FR</b> = Frosted Drop Lens  <b>FFR</b> = Frosted Flat Lens	<b>Blank</b> = Bronze, no sensor <b>W</b> = White, no sensor  <b>MS</b> = Bronze w/ SMS500 mini-sensor (not available w/ D10 models)  <b>MSW</b> = White w/ SMS500 mini-sensor (not available w/ D10 models)	<b>Blank</b> = On/Off driver  <b>/D10</b> = 0-10V Dimming (not available for 10w) <b>/480</b> = 480V (not available for 10W or 20W) <b>/480/D10</b> = 480V w/ 0-10V dimming (not available for 10W or 20W)	<b>/PCS</b> = 120V Swivel  <b>/PCS2</b> = 277V Swivel  <b>/PCS4</b> = 480V Swivel

# Section 6.0 – Appendix A – Lighting

## VANLED20



<b>Project:</b>	<b>Type:</b>
<b>Prepared By:</b>	<b>Date:</b>

Driver Info		LED Info	
Type:	Constant Current	Watts:	20W
120V:	0.30A	Color Temp:	5000K
208V:	0.20A	Color Accuracy:	74 CRI
240V:	0.17A	L70 Lifespan:	100000
277V:	0.15A	Lumens:	2,352
Input Watts:	22W	Efficacy:	108 LPW
Efficiency:	92%		

### Technical Specifications

#### Listings

##### UL Listing:

Suitable for wet locations.

##### IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

##### DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.  
DLC Product Code: PZQ1Z223

#### Electrical

##### Driver:

Class 2, Constant Current, 100-277V, 50-60Hz, 500mA

##### THD:

6.1% at 120V, 10.1% at 277V

#### Construction

##### Maximum Ambient Temperature:

Suitable for use in 104°F (40°C) ambient temperatures

##### Cold Weather Starting:

The minimum starting temperature is -40°F (-40°C)

##### Housing:

Die-cast aluminum housing and lens frame with (4) 1/2" NPS side conduit entries and weatherproof rear wire plug and access plate

##### Mounting:

Ceiling mount to recessed junction with knockout template or directly to ceiling surface, utilizing side conduit entry points.

##### IP Rating:

Ingress Protection rating of IP66 for dust and water

##### Lens:

Vandal-resistant polycarbonate textured opaque for low glare drop lens

##### Reflector:

Semi-specular, vacuum-metallized polycarbonate

##### Gaskets:

High-temperature silicone gaskets

##### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contain no VOC or toxic heavy metals.

##### Green Technology:

Mercury and UV free, RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### LED Characteristics

##### LEDs:

Discreet LEDs on PCB board

##### Color Stability:

RAB LEDs exceed industry standards for chromatic stability.

##### Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

#### Other

##### Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. See our full warranty

##### California Title 24:

See VANLED20/PCS, VANLED20/PCS2 or VANLED20MS for a 2013 California Title 24 compliant model.

##### Replacement:

Replaces up to 70W Metal Halide.

# Section 6.0 – Appendix A – Lighting

## VANLED20



**Dimensions**

**Features**

- Fits the footprint of older canopy lights
- Vandal resistant and UV resistant lens
- Ultra-high efficiency
- Clean, contemporary, low-profile design
- Available with drop lens or flat lens
- IP66 rated, keeps dust, bugs and water out
- Photo and motion sensor options available

**Ordering Matrix**

Family	Watts	Color Temp	Lens	Finish	Voltage	Dimming
VANLED	10 = 10W 20 = 20W 40 = 40W 52 = 52W 65 = 65W 75 = 75W	Blank = 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	Blank = Drop lens F = Flat lens	Blank = Bronze W = White	Blank = 120-277V /480 = 480V (10W & 20W not available)	Blank = No Dimming /D10 = Dimmable (10W & 20W not available)

# Section 6.0 – Appendix A – Lighting

**503441** (polycarbonate case)

**PHILIPS**

Emergency Driver for Philips Evokit  
Class 2 Output

Product Summary

**UL RECOGNIZED**



(Indoor and Damp)  
Output Class 2 Compliant  
\*503441 is field installable when used with the Philips Evokit G2/G3 LED Retrofit luminaire.

**Illumination Time**

90 Minutes

**Full Warranty**

5 Years (NOT pro-rata)

**Universal Input Voltage**

120-277 VAC, 50/60 Hz

**AC Input Current**

60 mA Maximum

**AC Input Power Rating**

4.0 W Maximum

**Output Current and Voltage**

Selectable (See Table 1)

Without Selector: minimum 200 mA, 35-50 VDC;  
minimum 300 mA over optimized range (30-34 VDC)  
With Selector: minimum 400 mA, 10-29 VDC.

**Output Power**

10.0 W (Maximum)

**Test Switch/Charging Indicator Light**

Illuminated Test Switch

**Battery**

High-Temperature,  
Maintenance-Free  
Nickel-Cadmium Battery  
7- to 10-Year Life Expectancy.

**Battery Charging Current**

180 mA

**Recharge Time**

24 Hours

**Temperature Rating (Ambient)**

0°C to +55°C  
(32°F to 131°F)

**Dimensions (503441)**

14.5" x 2.25" x 1.18"  
(369 mm x 58 mm x 30 mm)  
Mounting Center 14.0" (356 mm)

**Weight**

2.25 lbs. (1.0 kg) - polycarbonate



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## Application

The 503441 universal input (120-277 V) emergency LED driver works in conjunction with an AC LED driver that has an output current not to exceed 3.0 A. The emergency driver consists of a high-temperature nickel-cadmium battery, charger and electronic circuitry in one case. The 503441 can deliver up to 10 watts to an LED load (measured at nominal battery voltage) for 90 minutes. If used in an emergency-only fixture, no AC driver is necessary. The 503441 is suitable for indoor and damp locations. For more information about specific LED and AC driver compatibility, please call the factory.

## Operation

When AC power fails, the 503441 immediately switches to the emergency mode, operating the LEDs at a reduced lumen output for a minimum of 90 minutes. When AC power is restored, the emergency driver automatically returns to the charging mode. A patented circuit delays AC LED driver operation for up to 5 seconds to prevent over current of LEDs that would occur if both drivers supply the load at the same time.

## Installation

The 503441 does not affect normal fixture operation and may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot lead must be connected to the emergency driver. The emergency driver must be fed from the same branch circuit as the AC driver. Per UL requirements, the polycarbonate 503441 must be enclosed if remote mounted outside of the fixture. Installation is not recommended with fixtures where the ambient temperature may fall below 0° C. The product is suitable for installation in sealed and gasketed fixtures. For LED loads rated less than 30V, connect the load select per Table 1 for proper operation and optimum performance.

\*503441 is field installable when used with the Philips Evokit G2/G3 LED Retrofit luminaire. Option B contains the illuminated test switch wiring in its own conduit, with the test switch and a wall plate included in a separate parts kit.

## UL and Code Compliance

The 503441 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL 924, "Emergency Lighting and Power Equipment," and is UL Recognized for factory installation only. Emergency illumination time exceeds the National Electrical Code (NEC), Life Safety Code (NFPA-LSC) and UL 90-minute requirements.

Specifiers Reference

Project \_\_\_\_\_ Type \_\_\_\_\_ Model No. \_\_\_\_\_

Comments \_\_\_\_\_

12300211

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# Section 6.0 – Appendix A – Lighting

(polycarbonate case) **503441**

## Emergency Driver for Philips Evokit Gen2/Gen3 Class 2 Output

### Emergency Illumination

The 503441 operates an LED load of up to 10.0 W at nominal battery voltage for a minimum of 90 minutes.

### Specification

Emergency lighting shall be provided by using a LED fixture equipped with a Philips 503441 universal input (120-277 V) emergency driver. A patented circuit delays AC LED driver operation for up to 5 seconds to prevent over current of LED's that would occur if both drivers supply the load at the same time. This emergency driver shall consist of a high-temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one case. An illuminated test switch (ITS) to monitor charger and battery and installation hardware shall be provided. The emergency driver shall be capable of delivering up to 10 watts to an LED load for a minimum of 90 minutes. The 503441 is suitable for indoor and damp locations. The 503441 shall have a maximum of 4.0 watts of input power and a 24.0 Watt-hour battery capacity and shall comply with emergency standards set forth by the current NEC. The emergency driver shall be UL Recognized for factory installation only and shall be warranted for a full five years from date of purchase.

### Warranty

Model 503441 is warranted for five (5) full years from date of purchase. This warranty covers only properly installed Philips emergency LED drivers used under normal conditions. For the warranty period, Philips Lighting will, at its option, repair or replace without charge a defective emergency LED driver, provided it is returned to the factory transportation prepaid and our inspection determines it to be defective under terms of the warranty. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other charges, nor does it apply to any equipment of another manufacturer used in conjunction with the emergency driver.

### Benefits:

- Enables Evokits to meet Emergency Code requirements
- Emergency mode lumen output of up to 1300 lumens
- Universal input (120-277 VAC)
- 2 wire input reduces wiring errors

### IMPORTANT TEXT: REFER TO TABLE 1 REGARDING LOAD SELECT

Table 1 LOAD SELECT OPTIONS

MAXIMUM LOAD VOLTAGE	LOAD SELECT
10V - 29V	CONNECTED
30V - 50V	NOT CONNECTED

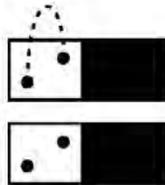


TABLE 2b. Listed Luminaires

Manufacturer	Model Number
Philips	Evokit LED recess luminaire

Table 3 REMOTE DISTANCES

Wire Gauge (AWG)	Maximum Remote Mounting Distance* (ft)	Maximum Wire Length** (ft)
10	500	1000
12	300	600
14	200	400
16	125	250
18	75	150
20	50	100
22	30	60
24	20	40
26	13	26

\* Total wire length can NOT exceed that given in Maximum Wire Length column.  
 \*\* Distance is round trip wire length.  
 Distances are for Emergency Driver only. Consult AC Driver specification for remote mounting distances when using AC Driver.

TBD

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# Section 6.0 – Appendix A – Lighting

## PEL12

EMERGENCY LIGHTING EQUIPMENT

# PHILIPS

**AC Output**  
**One-lamp operation; T5 and T8**  
**Low-Profile**  
**End-of-lamp-life compatible**

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### Product Summary

**UL LISTED FOR US AND CANADA**

Factory or Field Installation  
 (Indoor and Damp)



**Illumination Time**

90 Minutes

**Initial Light Output**

Up to 1300 Lumens

**Full Warranty**

5 Years (NOT pro-rata)

**Dual Voltage**

120 or 277 VAC, 60 Hz

**AC Input Current**

210 mA

**AC Input Power Rating**

5.0 Watts

**Test Switch**

2W-ITS (2-wire Illuminated Test Switch)

**Battery**

High-Temperature, Maintenance-Free  
 Nickel-Cadmium Battery  
 7-to 10-Year Life Expectancy

**Battery Charging Current**

150 mA

**Recharge Time**

24 Hours

**Charging Indicator Light**

LED

**Temperature Rating (Ambient)**

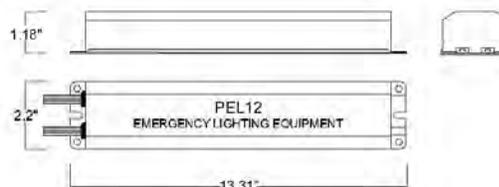
0°C to +50°C  
 (32°F to 122°F)

**Dimensions**

13.31" x 2.27" x 1.18"  
 (338.1 mm x 55.88 mm x 29.97 mm)  
 Mounting Center 12.8" (325 mm)

**Weight**

2.4 lbs. (1.1 kg)



### APPLICATION

The PEL12 emergency ballast works in conjunction with an AC ballast to convert new or existing fluorescent fixtures into emergency lighting. The emergency ballast consists of a high-temperature nickel-cadmium battery, charger and electronic circuitry in one compact galvanized metal case. The PEL12 can be used with most 2' through 4' (17 W - 54 W) single pin or bipin fluorescent lamps, including standard, energy saving, HO, VHO, circling, U-shaped and rapid-start (4-pin) long compact fluorescent lamps. Also operates one Philips LED T8 InstantFit lamp, 9290002840, 9290002841, 9290002842, 9290002862, 9290002880, 9290002881, 9290002882, 9290002883, 9290011183, 9290011184, 9290011185, 9290011186, 9290011179, 9290011180, 9290011181, 9290011182. PEL12 is optimized for one-lamp operation (see Table 1). It is also compatible with most single- and multi-lamp electronic and dimming AC ballasts. If used in an emergency-only fixture, no AC ballast is necessary. The PEL12 is suitable for indoor and damp locations and for sealed & gasketed fixtures, including fixtures rated for wet locations. It is not suitable for air handling heated air outlets or wet or hazardous locations. For information about specific lamp and ballast compatibility, please call the factory.

### OPERATION

When AC power fails, the PEL12 immediately switches to the emergency mode, operating one lamp at a reduced lumen output for a minimum of 90 minutes. When the AC power is restored, the emergency ballast automatically returns to the charging mode and delays AC ballast operation for approximately three seconds to prevent false tripping of the AC ballast end-of-lamp-life shutdown circuit.

### INSTALLATION

The PEL12 does not affect normal fixture operation and may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot lead must be connected to the emergency ballast. The emergency ballast must be fed from the same branch circuit as the AC ballast. The PEL12 may be installed inside, on top of or remote from the fixture. The emergency ballast may be remotely installed up to half the distance the AC ballast manufacturer recommends removing the AC ballast from the lamp or up to 50 feet, whichever is less. Installation is not recommended with fixtures where the ambient temperature may fall below 0°C.

### UL and CODE COMPLIANCE

The PEL12 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL 924, "Emergency Lighting and Power Equipment," and CSA C27.2 No. 141, "Emergency Lighting Equipment." The PEL12 is UL Listed for factory or field installation. Emergency illumination time exceeds the National Electrical Code (NEC), Life Safety Code (NFPA-LSC) and UL 90-minute requirements.

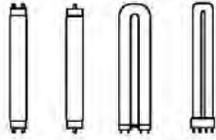
### Specifiers Reference

Project \_\_\_\_\_ Type \_\_\_\_\_ Model No. \_\_\_\_\_  
 Comments \_\_\_\_\_

L2300225

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# Section 6.0 – Appendix A – Lighting



## PEL12 EMERGENCY LIGHTING EQUIPMENT

AC Output  
One-lamp operation; T5 and T8  
Low-Profile  
End-of-lamp-life compatible

### EMERGENCY ILLUMINATION

The PEL12 produces up to 1300 lumens initial emergency light output (see Table 2).

### SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with a Philips PEL12 emergency ballast. This emergency ballast shall consist of a high temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one 13.31" x 2.2" x 1.18" galvanized metal case. A solid-state charging indicator light to monitor the charger and battery, a 2W-ITS and installation hardware shall be provided. The emergency ballast shall delay AC ballast operation for approximately three seconds to prevent false tripping of AC ballast end-of-lamp-life shutdown circuits. The emergency ballast shall be capable of operating one \_\_\_\_\_ fluorescent lamp (see Table 1) up to 1300 lumens (see Table 2) initial light output in the emergency mode for a minimum of 90 minutes. It is suitable for indoor and damp locations and for sealed & gasketed fixtures, including fixtures rated for wet locations. The PEL 12 shall operate at 120 or 277 VAC at, 60 Hz. The PEL12 shall have 5.0 Watts of input power and a 21 Watt-hour battery capacity and shall exceed emergency standards set forth by the current NEC and CEC. The emergency ballast shall be UL Listed for installation inside, on top of or remote from the fixture and shall be warranted for a full five years from date of purchase.

### WARRANTY

Model PEL12 is warranted for five (5) full years from date of purchase. This warranty covers only properly installed Philips emergency ballasts used under normal conditions. For the warranty period, Philips will, at its option, repair or replace without charge a defective emergency ballast, provided it is returned to the factory transportation prepaid and our inspection determines it to be defective under terms of the warranty. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other charges; nor does it apply to any equipment of another manufacturer used in conjunction with the emergency ballast.

Table 1 - Lamp Compatibility

LAMP DIMENSION	BASE TYPE	WATTAGE (Typical)	NO. of LAMPS (EMERGENCY MODE)	BROWN CONNECTOR
T8	Right	17-32 W (0-3)	1	CLOSED
LONG COMPACT	4-PIN (CG1)	74-36 W 40-55 W	1	CLOSED OPEN
QUADRIPOLE TUBE COMPACT	4-PIN	13-42 W	1	CLOSED
T5HE	MINIATURE BIPIN	18-21 W 28 W	1	CLOSED OPEN
T5HO	MINIATURE BIPIN	28-39 W 54 W	1	CLOSED OPEN
Philips LED T8 InstantFit	Right	8.5-16.5 W	1	CLOSED

Table 2 - Initial Lumen Output

LAMP	LUMENS 1 Lamp
F14T5/HE	600
F21T5/HE	1100
F28T5/HE	1300
F24T5/HO	800
F39T5/HO	1200
F54T5/HO	1100
F17T8	550
F25T8	1100
F32T8	1100
F40T8	750
F96T12/HO 110W	1100
PL-L 24W	800
PL-L 36W	1100
PL-L 30W	900
PL-L 55W	850
PL-L 76W	950
PL-T 42W	1050
FC9T5 22W Circline	600
F12T5 40W Circline	850
FC12T5 55W Circline	800
Philips LED T8 InstantFit 14.5 W	760
Philips LED T8 InstantFit 16.5 W	1096

Test results @ 25°C, lamp loads are new fresh model lamps.

L2300225

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# Section 6.0 – Appendix A – Lighting



The Philips EasySense fixture-mount sensor is the ideal solution for per-fixture control of new light fixtures. It combines occupancy sensing, daylight harvesting and task tuning in a single, compact package. EasySense operates with the established Philips Advance Xitanium SR LED driver standard to make a simple two-wire connection between sensor and driver, thus eliminating the need for multiple components and auxiliary devices. An intuitive app makes configuration and commissioning during and after installation fast and easy using Philips field apps.

EasySense with advanced grouping functionality enables addition of qualified wireless switches. Up to 40 sensors can be grouped to a switch using Philips field apps. In addition to easily adding user control to a space, the grouping feature facilitates auto-off/manual-on and auto-off/partial-on use cases. Furthermore, advanced grouping allows scene setting (e.g., presentation mode for a conference room), as well as occupancy sharing (i.e., fixtures within a group can be programmed to remain at prescribed light levels so long as occupancy is detected anywhere in the group).

Commercial Product Name	Order Code
EasySense EVO200	516575

# Section 6.0 – Appendix A – Lighting

## EasySense fixture-mount sensor

### Features

- Occupancy sensing, daylight harvesting and task tuning in one device
- Scene setting and occupancy sharing
- Compact size, 2-wire connection
- Operates with Philips Advance Xitanium SR LED drivers and qualified wireless switches
- Configuration of sensor parameters – if desired – using NFC or IR via intuitive Android-based Philips field apps
- Simple grouping of fixtures to a wireless switch with Philips field apps

### Benefits

- Combines functionality to reduce need for multiple components
- Quick task tuning in the field to optimize light and power levels
- Enables auto-off/manual-on and auto-off/partial-on application
- Cost-effective solution for energy savings and code-compliance strategies
- 5-year limited system warranty with Philips Advance Xitanium LED drivers<sup>1</sup>
- Configuration and commissioning from the floor

### Applications

- Conference rooms
- Individual offices
- Open offices
- Classrooms
- Storage and break areas
- Restrooms
- Lobbies
- Stairways

### Product Data

All specifications are typical and at 25°C Tcase unless otherwise specified.

Ordering Information	
Order Code	516575
Full Product Name	EasySense EVO200
Carton Quantity	50 pcs/carton
Physical Information	
Overall Dimensions	1.97in x 0.75in x 1.24in / 50mm x 19.0mm x 31.5mm
Housing (Luminaire Hole)	1.73in x 0.67in / 44mm x 17mm (l x w)
Net Weight per Piece	0.6oz / 17gr
Volume Required Inside Luminaire (LxWxH)	1.87in x 0.75in x 0.95in / 50mm x 19mm x 24mm
Color	White
Connectors	(2) Lite-Trap connectors rated for AWG24 to AWG18 solid conductor wire (AWG22-AWG20 for stranded wire)
Electrical Information	
Input Voltage	Powered by SR driver low-voltage interface
Current Consumption	13mA
Nominal Power Consumption	200mW
Standby Power	< 1 W on luminaire level, including driver standby power
Occupancy Sensing	
Type	Passive infrared (PIR)
Enable/Disable	Default enabled
Occupancy Mode	Auto-on/off, Manual-on/off, Manual-on/auto-off; Red LED indicates occupancy detected
Group Occupancy Sharing	Enabled/disabled
Group Lighting Behavior	Background level, task level
Eco-On Level	5-100%
Hold Time	0.5 - 60 minutes
Viewing Angle	X=72°, Y=86° (See detection pattern)
Background Light Level	0-100%
Prolong Time	0 minutes - infinity
Grace Fading	0-25 seconds
Response Time/Fading to Switch On/Off	0.7 seconds

[Continue on next page](#)

1. View limited warranty at <http://www.usa.lighting.philips.com/eus/nl/issupnet/war/war/v>

# Section 6.0 – Appendix A – Lighting

## EasySense fixture-mount sensor

### Product Data (continued)

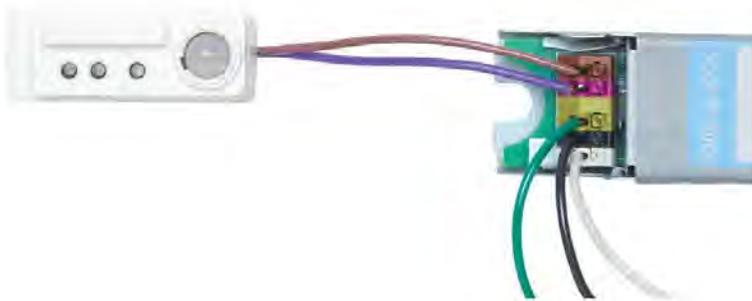
All specifications are typical and at 25°C Tcase unless otherwise specified.

<b>Daylight Sensing</b>	
Enable/Disable	Default enabled
Auto-Calibration	Upon power-up
Viewing Angle	40° (half value sensitivity); 2% cut-off point at 75°
<b>Task Tuning</b>	
Full Light Setting	0-100%
<b>Environment &amp; Approbation</b>	
Operating Ambient Temperature Range	0°C to 55°C
Operating Humidity	0 – 95% non-condensing
Storage Temperature	-25°C to 85°C
Storage Humidity	0-95% non-condensing
Max Case Temperature (Tcase)	55°C
Agency Approbations	UL, CSA: Tested and approved for use in plenums; FCC ID: 2AF2N-SNS100; IC: 20659-SNS100
Certification	California Title 20
Warranty	5 years
Digital Interface	Xitanium SR
<b>Other</b>	
LED Status Indicators	Red, Yellow: Yellow LED on: Vacancy & Sensor is functional; Red LED on: Occupancy detected
No. Drivers per Sensor	4 max
Max Distance Switch-to-First-Fixture	33ft line-of-sight
Max Distance Fixture-to-Fixture	40ft line-of-sight
No. Switches per Group	5 max
Field Configuration	via NFC or IR, parameters set via Philips field apps

# Section 6.0 – Appendix A – Lighting

## EasySense fixture-mount sensor

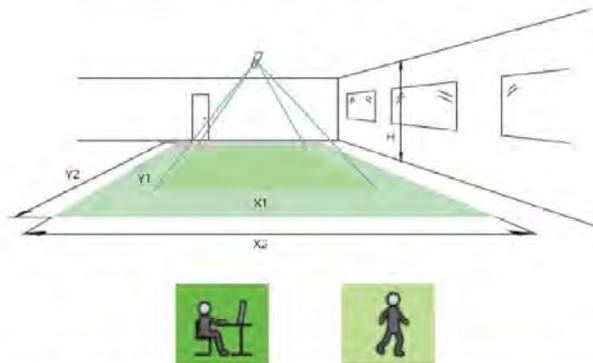
### Wiring Diagram



### Occupancy Sensing

The detection area for the movement sensor can be roughly divided into two parts:

- Minor movement (person moving  $\leq 3.0'$ /s or 0.9m/s).
- Major movement (person moving  $\geq 3.0'$ /s or 0.9m/s).



Height H	Minor Movement		Major Movement	
	Y1	X1	Y2	X2
8'/2.4m	10'/2.9m	9'/2.7m	15'/4.5m	9'/2.9m
10'/3m	12'/3.6m	11'/3.4m	18'/5.4m	12'/3.6m

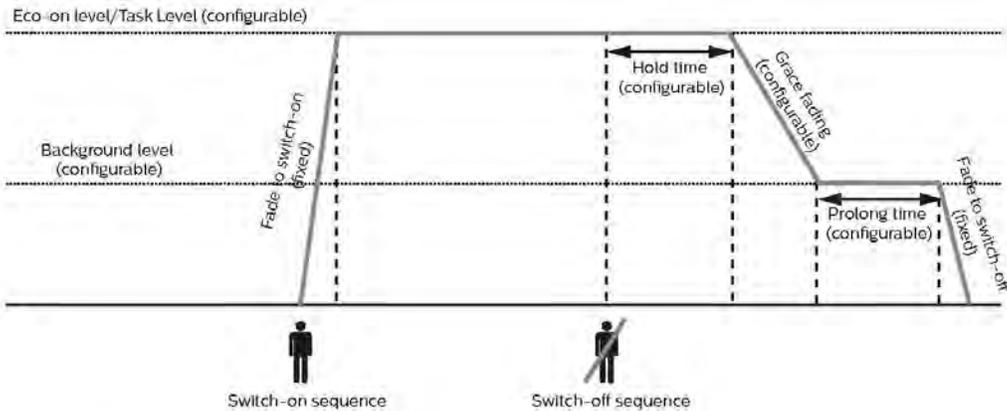
Note: Longer dimension of detection area (Y1, Y2) is parallel to longer dimension of EasySense.

# Section 6.0 – Appendix A – Lighting

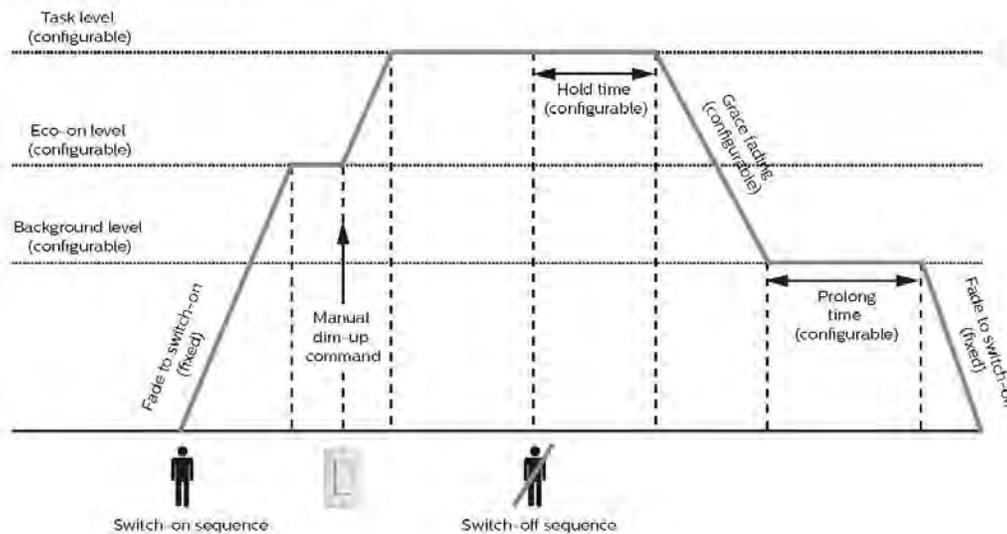
## EasySense fixture-mount sensor

### Occupancy Sensing (continued)

Full-On Sequence (Default)  
Eco-On Level = Task Level



Partial-On Sequence (Configurable)  
Eco-On Level < Task Level



PLI-1620305\_E5 Adv Grouping Evokit DS 11/10 page 5 of 10

# Section 6.0 – Appendix A – Lighting

## EasySense fixture-mount sensor

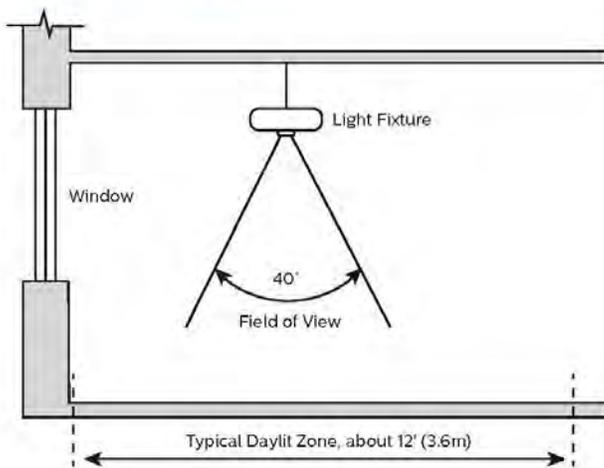
### Daylight Sensor

The light sensor measures the total amount of light in a circular field of ~80% of the PIR detection area. The following aspects should be observed during installation:

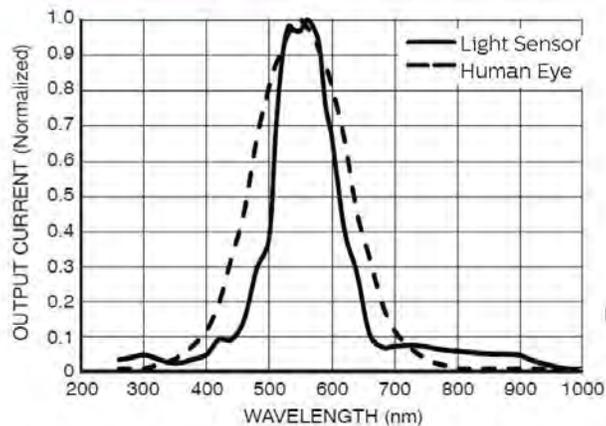
- Minimum distance from the window  $\approx 2.0' / 0.6m$ .
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car bonnet) as this will lead to incorrect light regulation.

As a guideline the formula  $0.72 \times H$  can be used to calculate the minimum distance between the window and sensor whereby H is the height from the bottom of the window to the ceiling.

### Photosensor Spatial Response



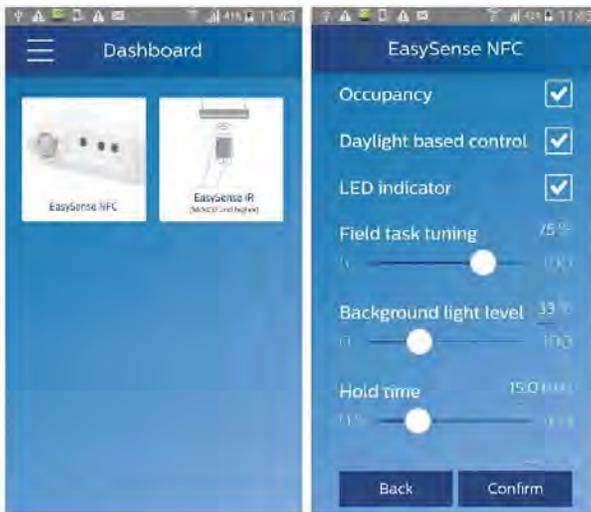
### Photosensor Spectral Response



# Section 6.0 – Appendix A – Lighting

## EasySense fixture-mount sensor

### Philips Field Apps: EasySense NFC and EasySense IR



EasySense parameters can be configured via Philips field apps. Two versions are available:

1. EasySense NFC – This app allows configuring EasySense parameters only when you can physically access the sensor with a smartphone.
2. EasySense IR – This app allows configuring EasySense parameters plus enables grouping to a wireless switch, which can be done with the IR feature of applicable phones from floor level.

You must first register for the app to receive a username and password, then download Philips field apps from the Google Play Store. Refer to [www.philips.com/easysense](http://www.philips.com/easysense) for details, including applicable Android phones and user manuals.

#### Default Factory Settings

Occupancy Detection	Auto-on, Enabled
Daylight-Based Control	Auto-on, Enabled
LED Indicator	Enabled
Occupancy Mode	Auto-on/off
Group Occupancy Sharing	Enabled
Group Lighting Behavior	Background level
Field Task Tuning	100%
Eco-On Level	100%
Background Light Level	20%
Hold Time	15 minutes
Prolong Time	15 minutes
Grace Fading	10 seconds
Fade to Switch-On	0.7 seconds
Fade to Switch-Off	0.7 seconds

# Section 6.0 – Appendix A – Lighting

## EasySense fixture-mount sensor

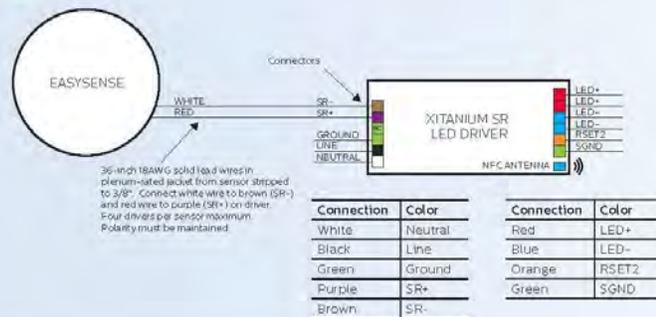
### Ceiling-Mount Option



### Sensor Part Number

Order Code	SNS200CMP (availability TBD)
Full Product Name	EasySense Ceiling-Mount Sensor
Carton Quantity	1 pc/carton
Assembly	Includes sensor pre-assembled in ceiling mounting plate with leads ready for field installation
Net Weight per Piece	2.6oz / 75gr.
Color	White
No. Drivers per Sensor	Four drivers per sensor max; polarity must be maintained

### Wiring Diagram



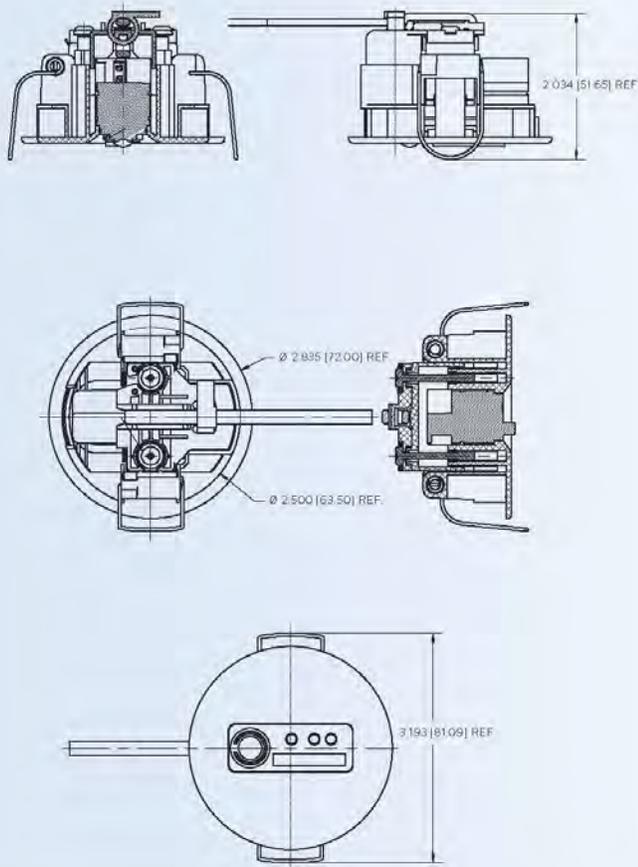
Note: Refer to [www.philips.com/easysense](http://www.philips.com/easysense) for quick installation guide.

# Section 6.0 – Appendix A – Lighting

## EasySense fixture-mount sensor

### Ceiling-Mount Option

Sensor Dimensions (in/mm)



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# Section 6.0 – Appendix A – Lighting

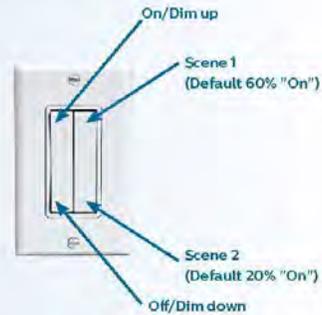
## EasySense fixture-mount sensor

### Compatible Wireless Switches

Description	Single Rocker Self-Powered Light Switch
Manufacturer	Illumra (www.illumra.com/easysense)
Model Number	Illumra # ZBT-S1AWH Digi-Key # 1082-1033-ND
Color	White
Max No. Sensors Per Switch	40
Functions	On/Off and Dim-up/Dim-down



Description	Dual Rocker Self-Powered Light Switch
Manufacturer	Illumra (www.illumra.com/easysense)
Model Number	Illumra # ZBT-S2AWH Digi-Key # 1082-1034-ND
Color	White
Max No. Sensors Per Switch	40
Functions	On/Off, Dim-up/Dim-down, Scene 1, Scene 2



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philips.com/easysense



Philips Lighting North America Corporation  
10275 W. Higgins Road, Rosemont, IL 60018  
Tel: 800-322-2086 Fax: 888-423-1892  
Customer/Technical Service: 800-372-3331  
OEM Support: 866-915-5986

Philips Lighting Canada Ltd.  
281 Hillmount Rd, Markham, ON, Canada L6C 2S3  
Tel. 800-668-9008

PLI-16269DS\_ES Adv Grouping Evokit DS- 11/16 page 10 of 10

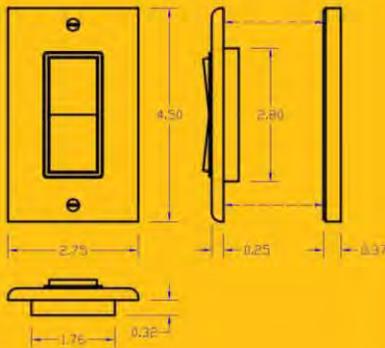
# Section 6.0 – Appendix A – Lighting



## Zigbee Battery-free Switch

No Batteries! No Wires! Self-powered Wireless Light Switch

ILLUMRA™ ZigBee Switches offer a familiar and convenient interface for controlling compatible light bulbs, receivers or gateways. The switches do not require wires or batteries, they contain a micro-generator powered ZigBee transmitter to send a wireless signal. The signal transmits through walls or around corners.



Single Rocker



Double Rocker

Available Colors:



White



Light Almond



Ivory



Gray



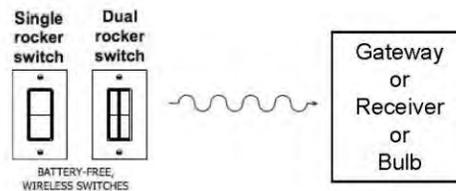
Brown



Black

Part Number	ZBT-S1Axx	ZBT-S2Axx
Range	30ft (10m)	
Frequency	ZigBee Channels 11-26 (2.4Ghz)	
Power	Self-generated when switch is pressed	
Buttons	2 Buttons	4 Buttons
Dimensions	2.75 (W) x 4.5 (H) x 0.62 (D) inches 6.98 (W) x 11.43 (H) x 1.57 (D) cm	
Ordering Codes	ZBT-S1AWH (White) ZBT-S1ABR (Brown) ZBT-S1ALA (Light Almond) ZBT-S1ABK (Black) ZBT-S1AIV (Ivory) ZBT-S1AGY (Gray)	ZBT-S2AWH (White) ZBT-S2ABR (Brown) ZBT-S2ALA (Light Almond) ZBT-S2ABK (Black) ZBT-S2AIV (Ivory) ZBT-S2AGY (Gray)

### Network Diagram



AHD0617A

115 S State St, Suite B  
Lindon, UT 84042

T: (801) 349-1200  
F: (801) 614-7100  
Sales@ILLUMRA.com

# Section 6.0 – Appendix A – Lighting

## WALL-NUTS™

Connect Stranded and  
Solid Wire

600 V building wiring  
1000 V fixtures and signs  
Current rating: Largest conductor used  
105° C rated (221° F)

Fast - Safe - Easy



File: E69654

Clear housing allows visual confirmation of connection  
Test port for easy continuity testing



File: LR46759



**773-162**

Yellow 2-conductor, 100 pc/box  
For 500 piece bag, order:  
**773-102/VE00-0500**  
For 2500 piece bag, order:  
**773-102/VE00-2500**  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper



**773-112**

Ground 2-conductor, 100 pc/box:  
  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper



**773-164**

Orange 4-conductor, 100 pc/box  
For 500 piece bag, order:  
**773-104/VE00-0500**  
For 2500 piece bag, order:  
**773-104/VE00-2500**  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper



**773-114**

Ground 4-conductor, 100 pc/box:  
  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper



**773-124**

Lt. Gry Special 4-cond. 100pc/box  
For 2500 piece bag, order:  
**773-124/VE01-0000**  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper

(Special opening)

- 18 AWG Stranded Copper  
(Stranding pattern less than or  
equal to 16)  
- 18 AWG Solid Copper



**773-166**

Black 6-conductor, 50pc/box  
For 500 piece bag, order:  
**773-166/VE00-0500**  
For 2500 piece bag, order:  
**773-166/VE00-2500**  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper



**773-116**

Ground 6-conductor, 50 pc/box:  
  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper



**773-168**

Dark Grey 8-conductor, 50pc/bg  
For 2500 piece bag, order:  
**773-108/VE00-2500**  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper



**773-118**

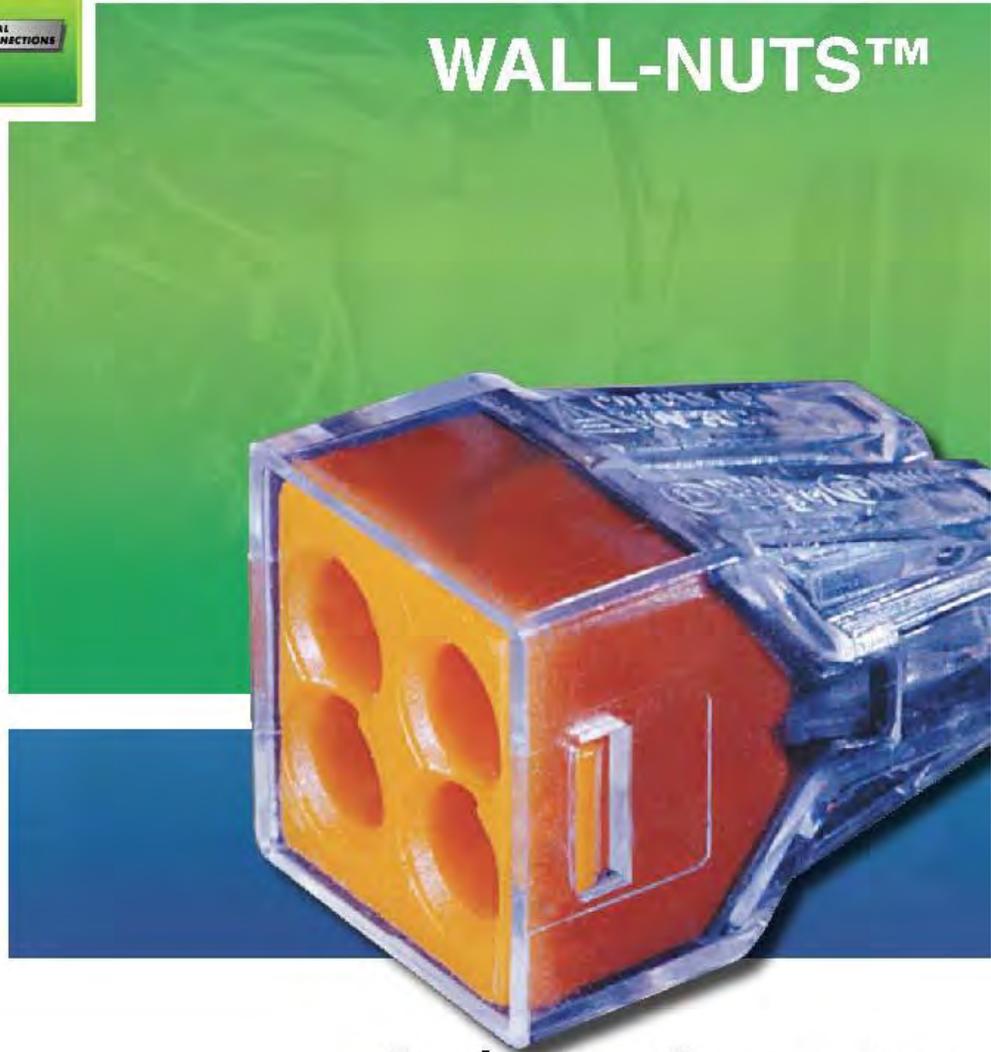
Ground 8-conductor, 50 pc/bg  
  
- 12-16 AWG Stranded Copper  
(stranding pattern less than or  
equal to 19)  
- 12-18 AWG Solid Copper

WAGO Corporation N120 W19129 Freistadt Rd., P.O. Box 1015, Germantown, WI 53022  
Tel.: 262 / 255-6222 Fax: 262 / 255-3232 Toll Free: 1-800-DIN RAIL (346-7245)  
www.wago.com info.us@wago.com

# Section 6.0 – Appendix A – Lighting



## WALL-NUTS™



### ● Pushwire Connectors

● for solid and stranded copper wire



# Section 6.0 – Appendix A – Lighting

## Introducing **WALL-NUTS™**

WALL-NUTS™ are the first push-in connectors that connect both stranded and solid copper wires. Now you can use the speed and dependability of push-wire technology in every application.



### See The Safety

WALL-NUTS™ clear housing means you can see the firm connection of solid or stranded conductors. No more guessing whether the wires are twisted together or are pushed in far enough. Visual inspection allows you to see that WALL-NUTS™ make reliable connections.

### Fast, Easy Installation

The new WALL-NUTS™ push-in connectors makes the job of wire connecting easier. No more twisting and taping required. Simply strip the wire; insert the conductor and you're finished.

The integrated test port allows for continuity testing without re-insertion.



Toll Free: 1-800-DIN RAIL (346-7245)

# Section 6.0 – Appendix A – Lighting

## Safe

WALL-NUTS™ hold each wire individually, eliminating loose connections. WALL-NUTS™ are touch-proof and rated to 105° C. WALL-NUTS™ are UL Listed/CSA certified for 600 volts (1000 volts for fixtures and signs) and current rated to the largest conductor used.



WALL-NUTS™ are perfect for new construction and retrofit work.



WALL-NUTS™ work with solid and stranded wire making main, branch and fixture hookup fast, easy and safe.

## Save Time

WALL-NUTS™ provide up to 50% time savings on installation. Secure connections reduce expensive troubleshooting and warranty work.



WALL-NUTS™ The 773-124's special opening wire range 18 stranded or solid; 18-22 tinned stranded copper.

## 18 AWG Stranded Range

The 773-124 has a special opening that accepts 18 AWG stranded copper wire. This makes the connection of incandescent light fixtures, dimmer switches, ceiling fans and other accessories to branch and main circuits a breeze.

Toll Free: 1-800-DIN RAIL (346-7245)

# Section 6.0 – Appendix A – Lighting



## • Luminaire Disconnect Connector

• Series 873, LUMI-NUTS®

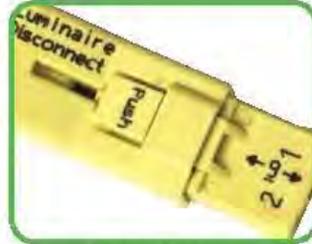


# Section 6.0 – Appendix A – Lighting

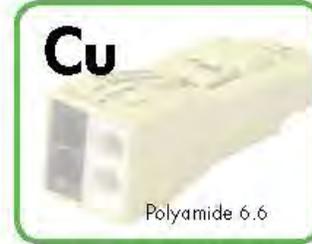
## PUSH WIRE® Connector for Luminaire Disconnect, 873 Series LUMI-NUTS®



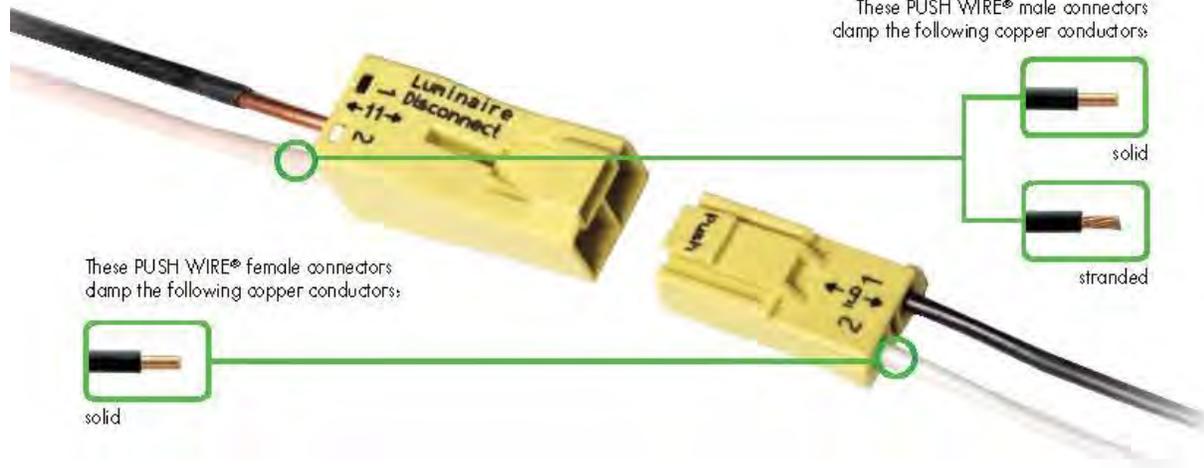
Molded in color coding for circuit wiring:  
 Black = L  
 White = N  
 Red = dimming and switching (3-pole)  
 Green = Ground (3-pole)  
 Inkjet marking for additional requirements



Integrated locking latch - automatic locking with mating of connectors - simple push down to disengage



Copper (not brass) for electrical integrity. UL94V-0 rated housing for utmost in flame-retardation



Engineered two-piece construction: Copper current bar and stainless steel spring combine to provide optimal contact pressure independent of the housing



Completely touch-proof in the unmated position

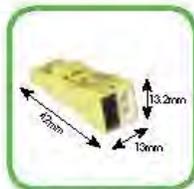


100% protected against mis-mating

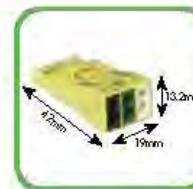
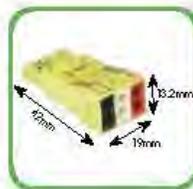
# Section 6.0 – Appendix A – Lighting

## PUSH WIRE® Connector for Luminaire Disconnect, 873 Series LUMI-NUTS®

<b>Male Connector</b> 2 x AWG 18-12 "sol" per pole 2 x AWG 14-12 ≤19 "str" per pole 600 V 20 A Current capacity at max. conductor size  11-13 mm/0.47 in	<b>Female Connector</b> 1 x AWG 18 "sol" per pole 600 V 6 A 9-11 mm/0.39 in	<b>Male Connector</b> 2 x AWG 14-12 "sol" per pole 2 x AWG 14-12 ≤19 "str" per pole 600 V 20 A Current capacity at max. conductor size  11-13 mm/0.47 in	<b>Female Connector</b> 1 x AWG 18 "sol" per pole 600 V 6 A 9-11 mm/0.39 in	<b>Male Connector</b> 2 x AWG 14-12 "sol" per pole 2 x AWG 14-12 ≤19 "str" per pole 600 V 20 A Current capacity at max. conductor size  11-13 mm/0.47 in	<b>Female Connector</b> 1 x AWG 18 "sol" per pole 600 V 6 A 9-11 mm/0.39 in
--	---	--	---	--	---



Fits through 1/2 in knockout

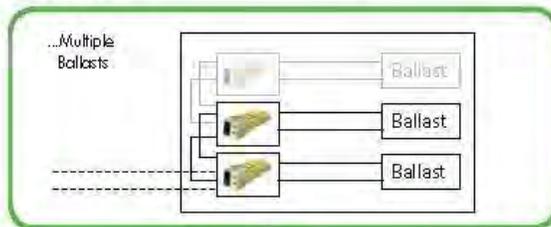


Item No.	Pack-unit pcs	Item No.	Pack-unit pcs	Item No.	Pack-unit pcs
Push-wire connectors for luminaire disconnect, 2-pole connectors:		Push-wire connectors for luminaire disconnect, 3-pole connectors, for switching and dimming applications:		Push-wire connectors for luminaire disconnect, 3-pole connectors, with "make first/break last" ground circuit:	
873-902		873-903		873-953	
873-902/K194-4045	25 pc/box	873-903/K194-4045	20 pc/box	873-953/VE00-0500	500 pc/bag
873-902/VE00-0500	500 pc/bag	873-903/VE00-0500	500 pc/bag		
873-902/VE00-5000	5000 pc/bag				

### Optimal Installation

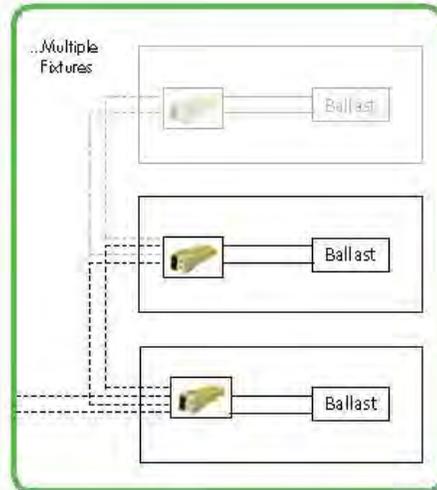
Exclusive dual port design eliminates the need for additional splicing connectors when wiring multiple luminaires, minimizing component costs and labor.

Daisy chain to...



Field Wiring

Factory Wiring



### Additional Specifications

Meets 2008 NEC 410.130(G) and CEC 30-308(4) for non-residential fluorescent luminaires  
 UL2459 listed insulated multi-pole splicing connector (luminaire disconnect)  
 CSA 22.2 No. 2459 certified insulated multi-pole splicing connector (luminaire disconnect)  
 EN/IEC 60998 and EN/IEC61984 certified connector  
 Max operating temperature: 105°C  
 Flammability rating: UL94V-0



# Section 6.0 – Appendix A – Lighting

## WAGO Service Worldwide

**Germany**  
WAGO Kontakttechnik  
Minden  
Tel. ++0571/ 887-443  
Fax: ++0571/ 887-541

**Austria**  
WAGO Kontakttechnik  
GmgH Wien  
Tel. ++43/1/ 615 07 80  
Fax: ++43/1/ 615 07 75

**Belgium**  
WAGO Kontakttechnik  
Zaventem  
Tel. ++32/2/7 17 90 90  
Fax: ++32/2/7 17 90 99

**China**  
WAGO ELECTRONIC Co. Ltd.  
Tianjin  
Tel.  
++86/22/ 82125854/ 64/ 74  
Fax: ++86/22/ 82125984

**England**  
WAGO, Ltd.  
Rugby  
Tel. ++44/1788/ 568008  
Fax: ++44/1788/ 568050

**France**  
WAGO CONTACT SA.  
Paris  
Tel. ++33/148172990  
Fax: ++33/148632520

**Italy**  
WAGO ELETTRONICA SRL  
San Lazzaro di Savena (BO)  
Tel. ++39/051/ 625-91-25  
Fax: ++39/051/ 625-91-27

**Japan**  
WAGO Co. of JAPAN Ltd.  
Tokyo  
Tel. ++81/3/ 3254/ 8881  
Fax: ++81/3/ 3254/ 8885

**Poland**  
WAGO ELWAG sp. z o. o.  
Wroclaw  
Tel. ++48/71/ 33-66-626  
Fax: ++48/71/ 33-60-952

**Singapore**  
WAGO Electronic Pte. Ltd.  
Singapore  
Tel. ++65/ 2866776  
Fax: ++65/ 2842425

**Switzerland**  
WAGO CONTACT SA.  
Dandier  
Tel. ++65/ 2866776  
Fax: ++65/ 2842425

**Mexico**  
WAGO Corporation  
Tel. 001-800-309-5975  
+ 52-(55)-26-44-69-16  
Fax: + 52-(55)-26-44-69-15

**Canada**  
WAGO Corporation  
Tel. 800 / DIN Rail (346-7245)  
Fax: 262 / 255-3232

WAGO Corporation  
N120 W 19129 Freistadt Road  
Germantown, Wisconsin 53022  
Telephone: 800 / DIN Rail (346-7245)  
Fax: 262 / 255-3232  
info.us@wago.com  
www.wago.us



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# Section 7.0 – Appendix B – Water

Measure Description	Install 1.28 gpf HET Wall Hung Toilet China	Install 1.28 gpf HET Floor Mount Floor Discharge Toilet China	Install 1.28 gpf HET Floor Mount Floor Discharge ADA Toilet China	Install 1.0 gpf HET Floor Mount Floor Discharge Elongated Front Tank Toilet	Elongated Open Front Seat	Install 1.28 gpf HET Manual Toilet Piston Valve w/ 9" vBt	Raise vBt length to 9" to meet code requirements	Install 0.125 gpf HEU Retrofit Pint Urinal (21" to 24" Footprint)	Install 0.125 gpf HEU Manual Urinal Piston Valve w/ C9 vBt	Install 0.5 gpm Tamperproof Laminar Flow Control for Existing Lavatory Faucet w/ Thread Adapter	Install 1.0 gpm Tamperproof Laminar Flow Control for Existing Kitchen Faucet w/ Thread Adapter	Install 1.5 gpm Low-Flow Pressure-Compensating Handheld Showerheads
Site/Bldg Name												
Wastewater Administration	2	0	0	0	2	2	0	0	0	2	3	1
Wastewater Operations	0	0	2	0	2	2	0	0	0	1	2	1
Parks & Recreation	0	0	0	2	2	0	0	0	0	2	2	0
Police Department	0	2	4	0	6	6	1	2	2	6	5	2
City Administration	0	0	0	3	3	0	0	0	0	3	3	0
Community Development	0	1	3	0	4	4	0	0	0	6	1	0
Courthouse	0	4	5	0	9	9	1	2	2	8	1	0
IT/Legal/Public Works	0	0	0	3	3	0	0	0	0	3	3	0
<b>TOTALS</b>	<b>2</b>	<b>7</b>	<b>14</b>	<b>8</b>	<b>31</b>	<b>23</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>31</b>	<b>20</b>	<b>4</b>

# Section 7.0 – Appendix B – Water

## Water Product Data



PLASTIC HINGES WITH STAINLESS STEEL POSTS AND PINTLES



STA-TITE® COMMERCIAL FASTENING SYSTEM™

### COMMERCIAL HEAVY-DUTY PLASTIC TOILET SEAT

MODEL #	COLOR #
1955CT/1955SSCT	_____

#### DESCRIPTION:

Open front less cover, elongated, heavy-duty, injection molded solid plastic toilet seat. Features four molded-in bumpers, non self-sustaining (1955CT) or self-sustaining (1955SSCT) check hinges with non-corrosive 300 Series stainless steel posts and pintles and STA-TITE® Commercial Fastening System™. This seat complies with IAPMO/ANSI Z124.5-2013 Plastic Toilet Seats as a class Commercial Heavy Duty.

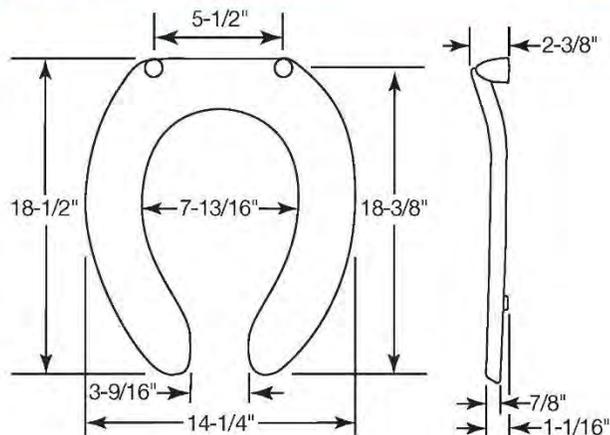
#### SPECIFICATIONS:

Size: Elongated  
 Material: Plastic  
 Style: Open Front less Cover  
 Bumpers: Four  
 Hinges: Plastic Non Self-Sustaining (1955CT) or Self-Sustaining (1955SSCT) with 300 Series Stainless Steel Posts and Pintles  
 Fastening System: STA-TITE® Commercial Fastening System™

#### FEATURES:

STA-TITE® Commercial Fastening System™  
 Non-Corrosive 300 Series Stainless Steel Posts and Pintles

#### DIMENSIONS:



Proudly Made in the USA

Bemis Manufacturing Co., Sheboygan Falls, WI 53085  
[www.ToiletSeats.com](http://www.ToiletSeats.com)

Phone: 800-558-7651 Fax: 800-292-3647

# Section 7.0 – Appendix B – Water



## HOSPITALITY HEAVY-DUTY PLASTIC TOILET SEAT

**MODEL #** \_\_\_\_\_ **COLOR #** \_\_\_\_\_

**7600T**

### DESCRIPTION:

Closed front with cover, elongated, heavy-duty, injection molded solid plastic toilet seat. Features four, molded-in bumpers, check hinges with non-corrosive 300 Series stainless steel posts and pintles and STA-TITE® Commercial Fastening System™. This seat complies with IAPMO/ANSI Z124.5-2013 Plastic Toilet Seats as a class Commercial Heavy Duty.

### SPECIFICATIONS:

Size: Elongated  
 Material: Plastic  
 Style: Closed Front with Cover  
 Bumpers: Four  
 Hinges: Plastic with 300 Series Stainless Steel Posts and Pintles  
 Fastening System: STA-TITE® Commercial Fastening System™

### FEATURES:

STA-TITE® Commercial Fastening System™  
 Non-Corrosive 300 Series Stainless Steel Posts and Pintles

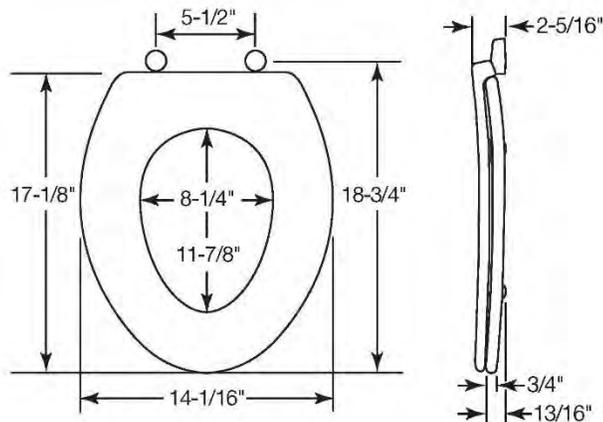
### DIMENSIONS:



PLASTIC HINGES WITH  
STAINLESS STEEL POSTS  
AND PINTLES



STA-TITE® COMMERCIAL  
FASTENING SYSTEM™



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# Section 7.0 – Appendix B – Water



## COMMERCIAL HEAVY-DUTY PLASTIC TOILET SEAT

**MODEL #** \_\_\_\_\_ **COLOR #** \_\_\_\_\_

**BB955CT**

### DESCRIPTION:

Open front less cover, baby bowl, heavy-duty, injection molded solid plastic toilet seat. Features two molded-in bumpers, check hinges with non-corrosive 300 Series stainless steel posts and pintles and STA-TITE® Commercial Fastening System™. Seat contains DuraGuard® Antimicrobial Built-In Seat Protection™. This seat complies with American National Standard Z124.5 Toilet (Water Closet) Seats as a class Commercial Heavy Duty.

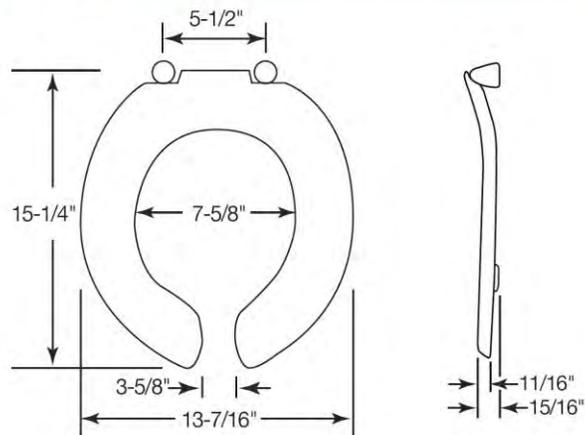
### SPECIFICATIONS:

Size: Toddler/Baby  
 Material: Plastic  
 Style: Open Front less Cover  
 Bumpers: Two  
 Hinges: Plastic with 300 Series Stainless Steel Posts and Pintles  
 Fastening System: STA-TITE® Commercial Fastening System™

### FEATURES:

STA-TITE® Commercial Fastening System™  
 DuraGuard® Antimicrobial Built-In Seat Protection™  
 Non-Corrosive 300 Series Stainless Steel Posts and Pintles

### DIMENSIONS:



Proudly Made in the USA

Bemis Manufacturing Co., Sheboygan Falls, WI 53085  
 www.BemisSeats.com

Phone: 920-467-4621 | 800-558-7651 Fax: 920-467-8573  
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# Section 7.0 – Appendix B – Water



## Pre-Rinse Sprayer

The surprisingly powerful stream that comes from this low-flow pre-rinse sprayer will charge through heavy food build up, burnt pans, and more, making it the best performer available for efficiency and quality of stream delivery. Flow rates as low as 0.6 GPM upon request, and with 'Cleanability' times well within the guidelines of Performance as measured by both Fish-Nick Testing Agency and the ASME. The sprayers are also available in faster flow rates of 0.74, 0.84, and 0.95 GPM, all at 60 psi.

Flow Rate

[Add To Cart](#)

[Bulk Order](#)

[Shipping Policy](#)

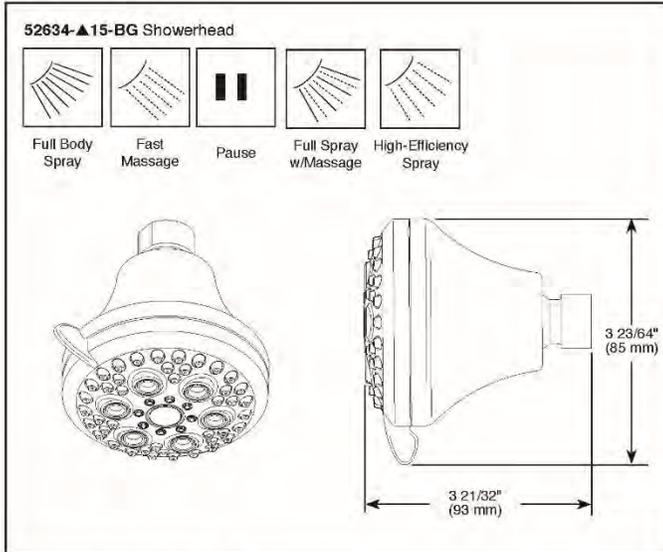


<b>Model #:</b>	<b>Pre-Rinse Sprayer</b>
Standard Flow Rate:	0.6 GPM
FIT™ Value:	16.43 dynes
Performance Value:	27.49
Width:	2.0"
Height:	7.25"
Weight:	19.5 oz
Material:	Brass & Neoprene

# Section 7.0 – Appendix B – Water

Submitted Model No.: \_\_\_\_\_

Specific Features: \_\_\_\_\_



▲ Designate proper finish suffix



## HIGH VELOCITY SHOWERHEAD

### FEATURES:

- Touch-Clean<sup>®</sup> spray holes.

### STANDARD SPECIFICATIONS

- Maximum 1.50 gpm at 80 psi, 5.70 L/min @ 522kPa
- Meets EPA criteria for WaterSense
- Actual water consumption 1.20 gpm (4.50 L/min)
- For use with automatic compensating valves rated at 1.00 gpm (3.80 l/min) or less

### WARRANTY

- Lifetime limited warranty on parts (other than electronic parts and batteries) and finishes; or, for commercial users, for 5 years from date of purchase.
- 5 year limited warranty on electronic parts (other than batteries); or, for commercial users, for 1 year from the date of purchase. No warranty is provided on batteries.



### COMPLIES WITH:

- ASME A112.18.1/ CSA B125.1
- EPA WaterSense<sup>®</sup>

Delta reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Dimensions are for reference only. See current full-line price book or [www.deltafaucet.com](http://www.deltafaucet.com) for finish options and product availability.

DSP-B-52634-15-BG Rev. C



55 F. 111th Street Indianapolis, Indiana 46280  
350 South Edgeware Road, St. Thomas, O.N. N5P 4L1  
© 2016 Masco Corporation of Indiana

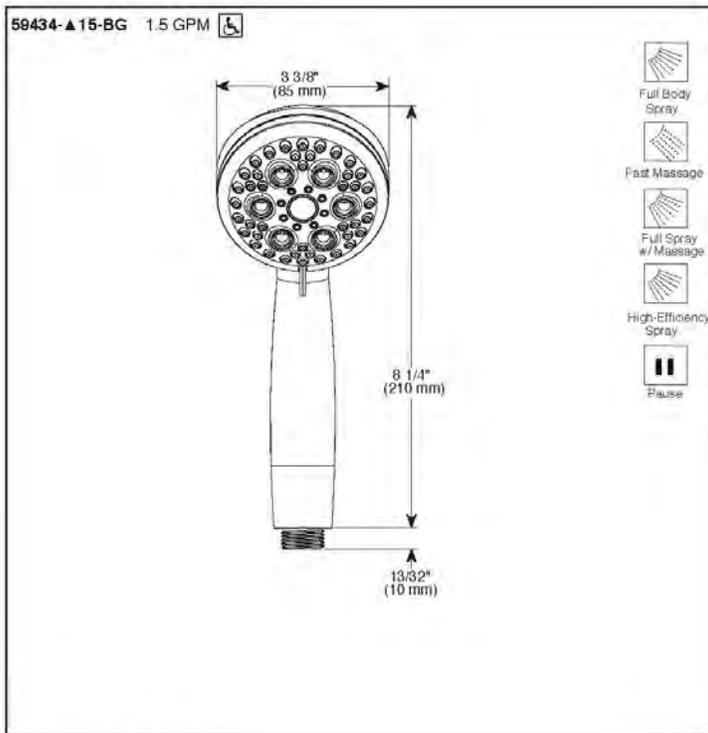
# Section 7.0 – Appendix B – Water



59434-▲15-BG

Submitted Model No.: \_\_\_\_\_

Specific Features: \_\_\_\_\_



▲ Designate proper finish suffix



see what Delta can do™

## HAND SHOWER

- Touch-Clean® 5-setting hand shower
- Water efficient hand shower

### STANDARD SPECIFICATIONS:

- Maximum 1.5 gpm @ 80 psi, 5.7 L/min @ 550 kPa
- Standard 1/2" pipe fitting
- ADA compliant hand shower when installed per accessibility guidelines of the act

### WARRANTY

- Lifetime limited warranty on parts (other than electronic parts and batteries) and finishes; or for commercial users, for 5 years from the date of purchase.
- 5 year limited warranty on electronic parts (other than batteries), or for commercial users, for 1 year from the date of purchase. No warranty is provided on batteries.



### COMPLIES WITH:

- ASME A112.18.1 / CSA B125.1
- indicates compliance to ICC/ANSI A117.1
- EPA WaterSense®

Delta reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Dimensions are for reference only. See current full-line price book or [www.deltafaucet.com](http://www.deltafaucet.com) for finish options and product availability.

DSP-B-59434-15-BG Rev D

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 350 South Edgeware Road, St. Thomas, ON N5P 4L1  
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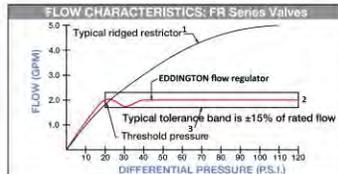
# Section 7.0 – Appendix B – Water

## FLOW REGULATORS PRODUCT DATA SHEET



The Eddington Flow Regulator is designed to deliver a constant volume of water flow over a wide pressure drop range. The constant flow of water is maintained by the use of the flexible orifice. The flow rate is maintained to within  $\pm 15\%$  between 15 and 125 psi. The flow rate varies due to manufacturing tolerances and water temperature. Eddington Industries manufactures flow regulators in various materials such as Nickel Plated Brass, Type 316 SS, and PVC. Eddington Flow Regulators come in various flow rates and are 3/8", 1/2", 3/4", 1" FNPT, and 1 1/4", 1 1/2", 2", 2 1/2", and 3" MNPT and flow rates range from 0.5 to 120 Gallon per minute (GPM). We also use labels that provide extra-strong protection for harsh environments and conditions. They are constructed from durable polyester that is water resistant and tear resistant providing durable and secure protection. All Eddington Flow Regulators are marked with an arrow indicating direction of flow. To ensure proper operation, always install regulator with the arrow pointed downstream.

Made in the USA



- NOTES:**
- (1) Calculated flow through 1/8" diameter orifice.
  - (2) Typical flow curve of EDDINGTON 2 GPM Flow Regulator.
  - (3) Threshold pressure will vary with flow rating.

## FLOW REGULATORS PRODUCT DATA SHEET

### APPLICATIONS

- Cooling towers
- Water softeners
- Tankless heaters
- Water filters
- Ground water heat pumps
- Irrigation systems
- Pumps (well and packing water)
- Drinking fountains
- Water purifiers

### MATERIALS

- PVC, stainless steel, lead free nickel plated brass
- Sizes: 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2, 2 1/2", 3", NPT
- Rubber orifice: Buna, Viton, EPDM
- Custom connections, materials and sizes available
- Lead free (LF) available

Model # (Nickel Plated Brass)	Flow (GPM)	Inlet Connection	Diameter (Inches)	Length (Inches)
FR-038-S	.06 to 1.0	3/8" FNPT	7/8" HEX	1 3/4"
FR-050-S	1.0 to 6.0	1/2" FNPT	1" HEX	1 15/16"
FR-075-S	1.0 to 11.5	3/4" FNPT	1 1/4" HEX	2 9/32"
FR-100-S	1.0 to 30	1" FNPT	1 1/2" HEX	2 3/4"
FR-125-S	1.0 to 30	1 1/4" MNPT	1 1/2" PIPE	3"
FR-150-S	1.0 to 30	1 1/2" MNPT	1 1/2" PIPE	3"
FR-200-S	1.0 to 30	2" MNPT	2" PIPE	3"
FR-250-S	30 to 90	2 1/2" MNPT	2 1/2" PIPE	4"
FR-300-S	30 to 120	3" MNPT	3" PIPE	4 1/2"

# Section 7.0 – Appendix B – Water

		SUBMITTED MODEL NO.	
		FCS-100-VRM1214-1.5	
JOB NAME		ITEM NO.	
SUBMITTED AS SHOWN			
SUBMITTED AS NOTED			
			
DIMENSIONS IN INCHES			
Specifications			SPECIFICATION MANUAL
<ul style="list-style-type: none"> <li>① FCS™ Patented Stainless Steel Non-Clogging Nozzle</li> <li>② Max Flow Rate 1.5 gpm from 30-80 psi</li> <li>③ Threads: 1/2" - 14 NPS Male</li> <li>④ All Metal Construction; Brass and Stainless Steel; Double Nickel and Chrome Plated</li> <li>⑤ For use in Acorn and other shower fixtures requiring 1/2" NPS male threads</li> <li>⑥ Vandal and Ligature Resistant</li> <li>⑦ Installation: Use 3/16" Spanner Wrench</li> </ul>			

# Section 7.0 – Appendix B – Water

# KOHLER®

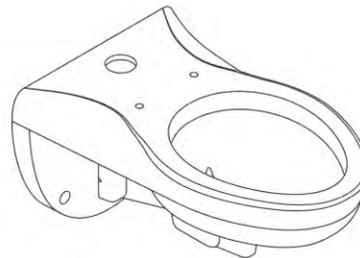
## KINGSTON™

### BOWL K-4325

ADA	TAS
CSA B651	OBC

#### Features

- Vitreous china
- Elongated bowl
- Siphon jet
- Wall-mount
- With bedpan lugs (-L)
- 1-1/2" top spud
- 1.28 gpf (4.8 lpf) or 1.6 gpf (6 lpf) depending on flushometer specified
- 10-1/2" (267 mm) x 9" (229 mm) water area
- 26-1/2" (673 mm) x 16-1/2" (419 mm) x 13-1/4" (337 mm)
- Will replace K-4330 and K-4330-L bowls



#### Codes/Standards Applicable

Specified model meets or exceeds the following:

- ADA
- ICC/ANSI A117.1
- TAS
- CSA B651
- OBC
- ASME A112.19.2/CSA B45.1
- Energy Policy Act of 1992

#### Colors/Finishes

- 0: White
- CP: Polished Chrome
- Other: Refer to Price Book for additional colors/finishes

#### Specified Model

Model	Description	Colors/Finishes	
K-4325	Bowl – elongated	<input type="checkbox"/> 0	<input type="checkbox"/> Other _____
K-4325-L	Bowl – elongated, with bedpan lugs	<input type="checkbox"/> 0	<input type="checkbox"/> Other _____

Recommended Accessories			
K-4731-C	Stronghold® open-front elongated seat	<input type="checkbox"/> 0	<input type="checkbox"/> Other _____
K-4731-SC	Stronghold open-front elongated seat with integrated handle	<input type="checkbox"/> 0	<input type="checkbox"/> Other _____
K-4731-GC	Stronghold Quiet-Close™ open-front elongated seat	<input type="checkbox"/> 0	<input type="checkbox"/> Other _____
K-10673	WAVE exposed toilet flushometer – 1.28 gpf (4.8 lpf)		<input type="checkbox"/> CP
K-10956	Touchless DC toilet flushometer – 1.28 gpf (4.8 lpf)		<input type="checkbox"/> CP
K-13517	Manual toilet flushometer – 1.28 gpf (4.8 lpf)		<input type="checkbox"/> CP
K-10674	WAVE exposed toilet flushometer - 1.6 gpf (6 lpf)		<input type="checkbox"/> CP
K-10957	Touchless DC toilet flushometer - 1.6 gpf (6 lpf)		<input type="checkbox"/> CP
K-13516	Manual toilet flushometer - 1.6 gpf (6 lpf)		<input type="checkbox"/> CP

#### Product Specification

The elongated bowl shall be made of vitreous china. Bowl shall be 26-1/2" (673 mm) in length, 16-1/2" (419 mm) in width, and 13-1/4" (337 mm) in height. The bowl shall be wall-mount with a 1-1/2" top spud. Bowl shall have siphon jet. Bowl shall have bedpan lugs (-L). Bowl shall feature 1.28 gpf (4.8 lpf) or 1.6 gpf (6 lpf) depending on flushometer specified. Bowl shall have 10-1/2" (267 mm) x 9" (229 mm) water area. Bowl shall be Kohler Model K-4325-\_\_\_\_\_ or K-4325-L-\_\_\_\_\_.

# Section 7.0 – Appendix B – Water

## 147-153 QuantumOne™

Elongated Front, Vitreous China, Two-Piece Toilet



### Features

- High efficiency (HET), pressure assist vessel
- 1.0 gpf / 3.8 lpf ultra-low water consumption
- SAVES up to 40% more water than conventional 1.6 gpf flushing systems
- Elongated front bowl
- 12" rough-in
- Trip levers
  - Model 45 left hand, chrome-plated metal trip lever
  - Model 47 chrome-plated push button actuator
  - Model 49 right hand, chrome-plated metal trip lever
- 2-1/8" glazed trapway
- The Mansfield® limited lifetime warranty (china)
- Ten year limited vessel warranty
- Available in White and Standard Colors: Biscuit and Bone



Elongated Front



Model 147-153  
Toilet seat not included

### Components

Model #	Description	Codes/Standards
147-153	Elongated front, pressure-assist, two-piece toilet. Less toilet seat and supply. Specify color.	
147	Elongated front toilet bowl only. Less toilet seat. Specify color.	
153	Pressure-assist tank and cover only with left hand, chrome-plated metal trip lever. Less supply. Specify color.	

### Other Options:

153RH	Same as model 153, except with right hand, chrome-plated, metal trip lever.	
154	Same as model 153, except with push button actuator.	



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# Section 7.0 – Appendix B – Water

**147-153**

**QuantumOne™**

Elongated Front, Vitreous China, Two-Piece Toilet

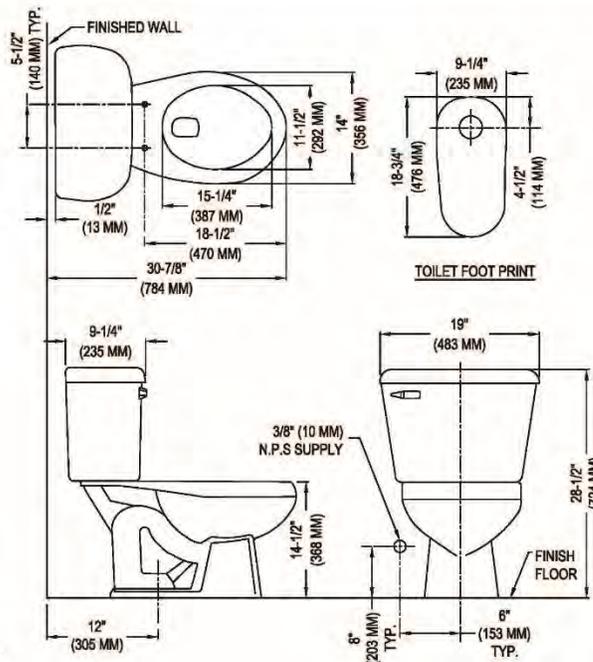


## Specifications

Model #	Description	Codes/Standards
147-153	Elongated front (1.0 gpf/3.8 lpf) two-piece toilet	  

Specification	Description	Specification	Description
Material	Vitreous China	Trap Diameter	2-1/8"
Water Pressure Range	35 to 80 PSI	Trap Seal	2-3/4"
Flush System	Flushmate IV™ Pressure Assist Vessel	Rough-in	12"
Water Usage	1.0 gpf / 3.8 lpf	Shipping Weight	Model 147 - 55 lbs. (25 kg) Model 153/153RH/154 - 41 lbs. (18.6 kg)
Water Surface Area	9-7/8" X 12-1/4"	Warranty	Vitreous China - Limited Lifetime Tank Trim - Limited One Year
MaP Rating	1000 grams		

## Technical Information



See our complete line of acrylic and vitreous china bathroom fixtures, plastic tank trim and plumbing products.

These dimensions are nominal and subject to change without notice.  
 Fixture performance and specifications meet or exceed ASME A112.19.2-2008/CSA B45.1-08 standards, and other state and local codes.

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**MADE IN USA**

# Section 7.0 – Appendix B – Water

**148-153**

**QuantumOne™**

Elongated Front, SmartHeight™, Vitreous China, Two-Piece Toilet



## Features

- High efficiency (HET), pressure assist vessel
- 1.0 gpf / 3.8 lpf ultra-low water consumption
- SAVES up to 40% more water than conventional 1.6 gpf flushing systems
- SmartHeight™ (17-1/4" bowl)
- 12" rough-in
- Trip levers
  - Model 45 left hand, chrome-plated metal trip lever
  - Model 47 chrome-plated push button actuator
  - Model 49 right hand, chrome-plated metal trip lever
- 2-1/8" glazed trapway
- The Mansfield® limited lifetime warranty (china)
- Ten year limited vessel warranty
- Available in White and Standard Colors: Biscuit and Bone



Model 148-153  
Toilet seat not included

## Components

Model #	Descriptio	Codes/Standards
148-153	Elongated front, SmartHeight™ pressure-assist, two-piece toilet. Less toilet seat and supply. Specify color.	
148	Elongated front, SmartHeight™ toilet bowl only. Less toilet seat. Specify color.	
153	Pressure-assist tank and cover only with left hand, chrome-plated metal trip lever. Less supply. Specify color.	
153RH	Same as model 153, except with right hand, chrome-plated, metal trip lever.	
154	Same as model 153, except with push button actuator.	

# Section 7.0 – Appendix B – Water

**148-153**

**QuantumOne™**

Elongated Front, SmartHeight™, Vitreous China, Two-Piece Toilet

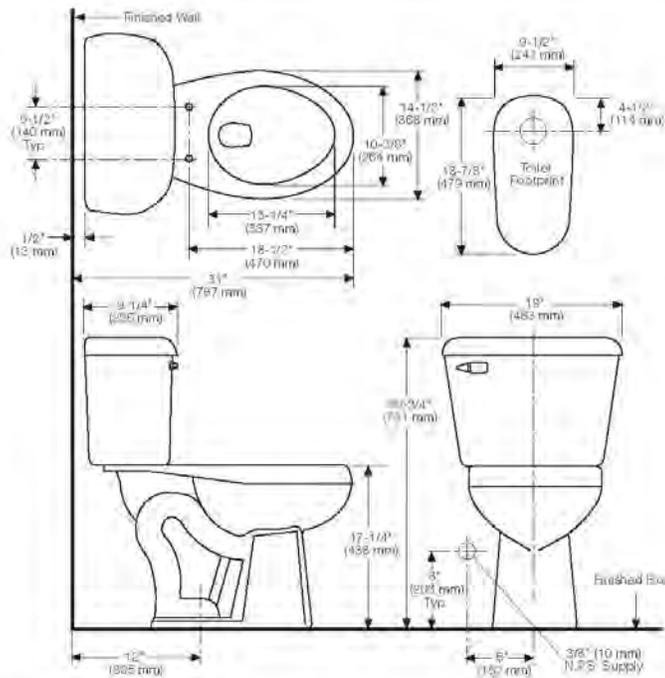


## Specification

Model #	Description	Codes/Standards
148-153	Elongated front (1.0 gpf/3.8 lpf) two-piece toilet	UPC HIGH EFFICIENCY TOILET HET ADA

Specification	Description	Specification	Description
Material	Vitreous China	Trap Diameter	2-1/8"
Water Pressure Range	35 to 80 PSI	Trap Seal	3"
Flush System	Flushmate IV™ Pressure Assist Vessel	Rough-in	12"
Water Usage	1.0 gpf / 3.8 lpf	Shipping Weight	Model 148 - 52 lbs. (23.5 kg) Model 153/153RH/154 - 41 lbs. (18.5 kg)
Water Surface Area	9-1/4" X 11-3/8"	Warranty	Vitreous China - Limited Lifetime Tank Trim - Limited One Year
MaP Rating	1000 grams		

## Technical Information



See our complete line of acrylic and vitreous china bathroom fixtures, plastic tank trim and plumbing products.

These dimensions are nominal and subject to change without notice.  
Fixture performance and specifications meet or exceed ASME A112.19.2-2008/CSA B45.1-08 standards, and other state and local codes.

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# Section 7.0 – Appendix B – Water

## PCA® Perlator® Laminar Stream - 1.5 gpm max Pressure compensating Regular Size



### Features and Benefits

- ▶ Watercolours® design: color coding to identify flow rate and stream pattern (U.S. patent pending).
- ▶ Pressure compensating for constant flow from 20 to 80 psi.
- ▶ Integrated anti-liming Honeycomb® replaces conventional wire mesh screens prone to lime build up.
- ▶ Anti-clogging dome screen filters sediment and particles.
- ▶ Patented construction provides a splash-free stream, well aerated and soft to the touch.
- ▶ Compatible with all NEOPERL® regular male and female housings, vandal proof and metric size housings.
- ▶ Available housing finishes: unplated, chrome and PVD.
- ▶ Laser marked housings: statutory mark and custom logo.
- ▶ Rubber washer.

### Certification

ANSI/NSF 61  
ASME A112.18.1M  
CSA B125  
WaterSense listed

### Part Number & Packing

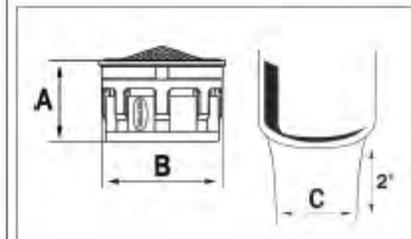
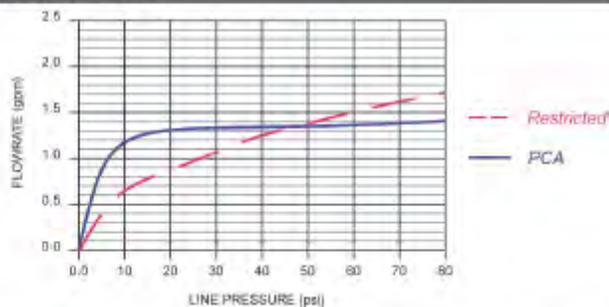
Designation	Part #	Packing
Insert only	40.2156.000	2500
Regular male 15/16"-27	40.2156.613	500
Regular female 55/64"-27	40.2156.623	500
Reg. dual thread 15/16"-27 / 55/64"-27	40.2156.673	500
Vandal proof regular male 15/16"-27	40.2156.723	400
Vandal proof regular female 55/64"-27	40.2156.733	400
Vandal proof dual thread	40.2156.763	400
Vandal key	BX.399C.1	

\*Other combinations also available

### Color Code

Dome: Clear / Green	Diffuser: White	Basket: Light Gray
---------------------	-----------------	--------------------

### Flow Rate Curve



### Dimensions

No	mm	In
A	12.00	.472
B	19.97	.786
C	≈ 13	≈ 1/2

### Housings



### Technical Data

Materials:	Body	Acetal
	O-ring	EPDM
	Washer	EPDM
Working temperature:		150°F
Working pressure:		125 psi

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86/09 - information subject to change without notice

# Section 7.0 – Appendix B – Water

## PCA® Spray Faucet Attachment - 0.5 gpm max Pressure Compensating Regular Size



flow, stop and go®

### Features and Benefits

- ▶ Pressure compensating for constant flow from 20 to 80 psi.
- ▶ Provides non-splashing, non-aerated spray.
- ▶ Anti-clogging dome screen filters sediment and particles.
- ▶ Color-coded to identify flow rate.
- ▶ Virtually unbreakable single piece insert ensures a longer useable life.
- ▶ Also compatible with regular and vandal proof M22 and M24 metric housings.
- ▶ Available housing finishes: unplated, chrome and PVD.
- ▶ Laser marked housings: statutory mark and custom logo.
- ▶ Rubber washer.

### Certification

ANSI/NSF 61  
ASME A112.18.1M and CSA B125

### Part Number & Packing

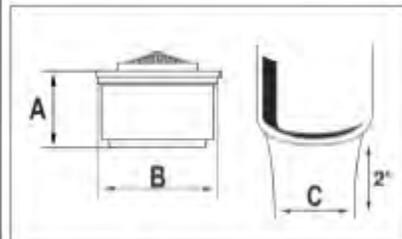
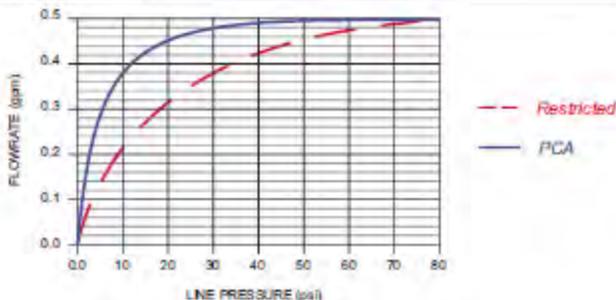
Designation	Part #	Packing
Insert only	A5.9042.1	3000
Regular male 15/16"-27	40.7059.613	500
Regular female 55/64"-27	40.7059.623	500
Regular dual thread 15/16"-27 55/64"-27	40.7059.673	500
Vandal proof regular male 15/16"-27	40.7059.723	400
Vandal proof regular female 55/64"-27	40.7059.733	400
Vandal proof dual thread	40.7059.763	400
Vandal key	BX.399C.1	

\*Other combinations also available

### Color Code

Dome: White	Diffuser: Lime Green	Basket: Dark Gray
-------------	----------------------	-------------------

### Flow Rate Curve



### Dimensions

No	mm	In
A	13.00	.512
B	19.95	.785
C	≈ 25	≈ 1

### Housings



### Technical Data

Materials:	Body	Acetal
	O-ring	EPDM
	Washer	EPDM
Working temperature:		150°F
Working pressure:		125 psi
Wetted surface area:		2831.3 mm <sup>2</sup>

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January 2013 - Information subject to change without notice

PCA-9

# Section 7.0 – Appendix B – Water



## GEM•2® Model 186 HEU XL Flushometer

### Description

Exposed, high-efficiency urinal flushometer for 3/4" top spud urinals.

### Flush Cycle

- Model 186-0.125 XL High Efficiency (0.125 gpf/0.5 Lpf)  
Code: 3072619
- Model 186-0.25 XL High Efficiency (0.25 gpf/1.0 Lpf)  
Code: 3072621
- Model 186-0.5 XL High Efficiency (0.5 gpf/1.9 Lpf)  
Code: 3072607

### Specifications

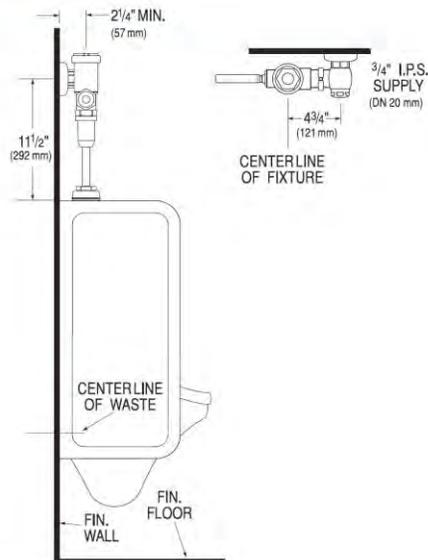
Quiet, Exposed, Piston Type, Chrome Plated Urinal Flushometer with the following features:

- Fixed Volume Piston with Filtered O-ring Bypass
- ADA Compliant Metal Oscillating Non-Hold-Open Handle
- 3/4" I.P.S. Screwdriver Bak-Chek® Angle Stop with Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Spud Flanges for 3/4" Top Spud Urinal
- Sweat Solder Kit with cover tube and Cast Wall Flange with Set Screw for 3/4" Supply
- High Copper, Low Zinc Brass Castings for Dezincification Resistance
- Non-Hold-Open Handle and No External Volume Adjustment to Ensure Water Conservation
- Handle Packing, Stop Seat and Vacuum Breaker Molded from PERMEX® Rubber Compound for Chloramine Resistance

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037 and ANSI/ASME A112.19.2.

### Accessories

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



GEM•2 186 HEU XL 06-15  
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This space for Architect/Engineer approval

Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	

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# Section 7.0 – Appendix B – Water



## GEM•2® Model Flushometer

# 186-0.5

### Description

Exposed, high-efficiency urinal flushometer for 3/4" top spud urinals.

### Flush Cycle

Model 186-0.5 High Efficiency (0.5 gpf/1.9 Lpf)

### Specifications

Quiet, Exposed, Piston Type, Chrome Plated Urinal Flushometer with the following features:

- Fixed Volume Piston with Filtered O-ring Bypass
- ADA Compliant Metal Oscillating Non-Hold-Open Handle
- 3/4" I.P.S. Screwdriver Bak-Chek® Angle Stop with locking Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 3/4" Top Spud
- High Copper, Low Zinc Brass Castings for Dezincification Resistance
- Non-Hold-Open Handle and No External Volume Adjustment to Ensure Water Conservation
- Handle Packing, Stop Seat and Vacuum Breaker Molded from PERMEX® Rubber Compound for Chloramine Resistance

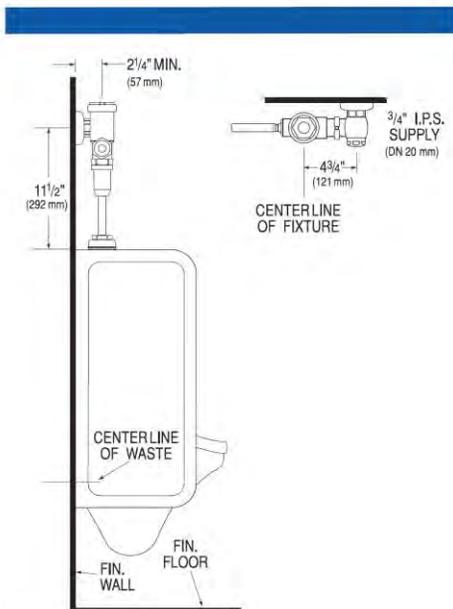
Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037 and ANSI/ASME A112.19.2.

### Variations

- XVY** Less Vacuum Breaker
- YBYC** Sweat Solder Adapter & Cast Wall Flange with Set Screw

### Accessories

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.



GEM•2 186-0.5 10-14  
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This space for Architect/Engineer approval

Job Name _____	Date _____
Model Specified _____	Quantity _____
Variations Specified _____	
Customer/Wholesaler _____	
Contractor _____	
Architect _____	

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# Section 7.0 – Appendix B – Water



## Gem•2® Model Flushometer

111/113-1.28  
115/116-1.28

### Description

Exposed HET Water Closet Flushometer for floor mounted or wall hung top spud bowls.

### Flush Cycle

- Model 111-1.28 High Efficiency (1.28 gpf/4.8 Lpf)
- Model 113-1.28 High Efficiency (1.28 gpf/4.8 Lpf)
- Model 115-1.28 High Efficiency (1.28 gpf/4.8 Lpf)
- Model 116-1.28 High Efficiency (1.28 gpf/4.8 Lpf)

### Specifications

Quiet, Exposed, Piston Type, Chrome Plated Closet Flushometer with the following features:

- Fixed Volume Piston with Filtered O-ring Bypass
- ADA Compliant Metal Oscillating Non-Hold-Open Handle
- 1" I.P.S. Screwdriver Bak-Chek® Angle Stop
- Locking Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling, Wall and Spud Flanges for 1-1/2" Top Spud
- High Copper, Low Zinc Brass Castings for Dezincification Resistance
- Non-Hold-Open Handle and No External Volume Adjustment to Ensure Water Conservation
- Handle Packing, Stop Seat and Vacuum Breaker Molded from PERMEX® Rubber Compound for Chloramine Resistance

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037 and ANSI/ASME A112.19.2.

### Variations

- XYV** Valve Less Vacuum Breaker
- YB** Sweat Solder Adapter Kit

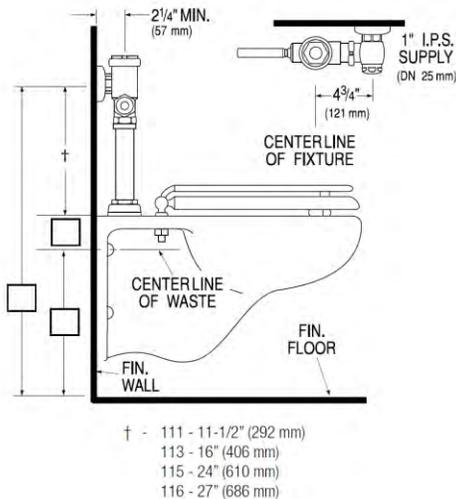
**NOTE:** Bak-Chek® Angle Stop available with 1" Whitworth Thread (please specify).

### Accessories

See Accessories Section of the Sloan catalog for details on these and other Flushometer variations.

### Fixtures

Consult Sloan for Sloan brand matching fixture options.



This space for Architect/Engineer approval

Job Name \_\_\_\_\_ Date \_\_\_\_\_

Model Specified \_\_\_\_\_ Quantity \_\_\_\_\_

Variations Specified \_\_\_\_\_

Customer/Wholesaler \_\_\_\_\_

Contractor \_\_\_\_\_

Architect \_\_\_\_\_

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# Section 7.0 – Appendix B – Water



Model  
**ST-2009-A Universal Closet**  
 Top Spud Floor Mount Vitreous China Water Closet

**DESCRIPTION**

Complete vitreous china water closet.

**Flush Cycle**

Model ST-2009-A\* Universal Closet  
 (1.1 to 1.6 gpf/4.2 to 6.0 Lpf)

Flush volume is determined by the flushometer used with closet.



**SPECIFICATIONS**

**Fixture**

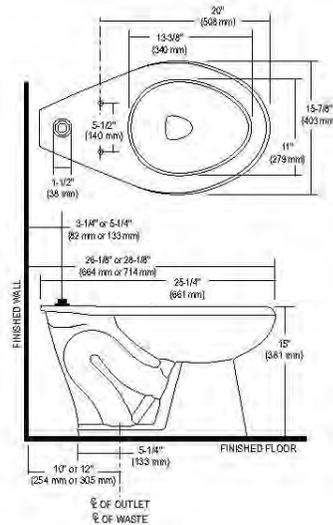
- Vitreous China
- Floor Mounted
- Siphon Jet Flushing Action
- 1-1/2" IPS top spud inlet
- 2-1/8" trapway diameter
- Fully Glazed Trapway
- Integral Flushing Rim
- Elongated Bowl
- Water Spot Area 10" x 7 1/2"
- Closet Bolts and Caps Included
- Water closet compliant to the applicable sections of ASME A112.19.2/CSA B45.1
- Toilet Seat Not Included

**Colors/Finishes**

- White

**Recommended Accessories**

- Compatible with Toilet Seat models:  
 Olsonite 10CT  
 Bemis 1955 CT  
 Church Commercial 295CT



**NOTE:** All vitreous china dimensions shown in these drawings are nominal. Dimensions can vary within the tolerances established in the governing ASME A112.19.2/CSA B45.1 standard. Please take this into consideration when planning rough-in and plumbing layouts.

**Product Specification**

Elongated water closet shall be made of vitreous china with a 1-1/2" top spud. Water Closet shall be floor mounted. Water Closet shall be Sloan Model ST-2009-A.

\* Please note that this model is fully interchangeable with Models: ST-2000-A, ST-2002-A, ST-2003-A and matches all dimensional and performance parameters.

\*\*\* This model meets the requirements for a High Efficiency Toilet when used with a high efficiency flushometer (1.28 gpf/4.8 Lpf or 1.1/1.6 gpf-4.2/6.0 Lpf dual-flush).

**NOTE:** Plumbing System Requirements

- ✓ Minimum **Flowing** Pressure: 25 PSI
- ✓ Maximum Static Pressure: 80 PSI
- ✓ Minimum Flow Rate: 18 GPM



This space for Architect/Engineer approval	
Job Name	Date
Model Specified	Quantity
Variations Specified	
Customer/Wholesaler	
Contractor	
Architect	

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Sloan Headquarters  
 10500 Seymour Avenue  
 Franklin Park, IL 60131  
 Phone: 1-800-982-5839  
 Fax: 1-800-447-8329  
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# Section 7.0 – Appendix B – Water



Efficiency Series

Model  
**ST-2029-A Universal Closet**  
Top Spud ADA Compliant Vitreous China Water Closet

## DESCRIPTION

Complete ADA compliant vitreous china water closet.

### Flush Cycle

Model ST-2029-A\* Universal Closet

(1.1 to 1.6 gpf/4.2 to 6.0 Lpf)

Flush volume is determined by the flushometer used with closet.



## SPECIFICATIONS

### Water Closet

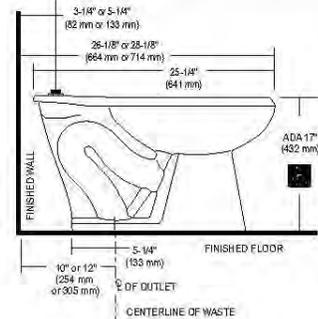
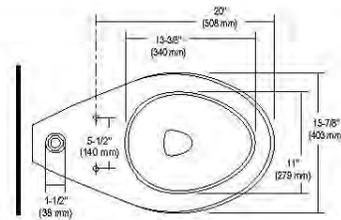
- Vitreous china
- Floor mounted
- ADA Compliant
- Siphon jet flushing action
- 1.5" I.P.S. top spud inlet
- 2" trapway diameter
- Fully glazed trapway
- Integral flushing rim
- Elongated bowl
- Water spot area 10" x 7 1/2"
- Closet bolts and caps included
- Water closet compliant to the applicable sections of ASME A112.19.2/CSA B45.1
- Toilet seat not included

### Colors/Finishes

- White

### Recommended Accessories

- Compatible with toilet seat models:  
Olsonite 1OCT  
Bemis 1955 CT  
Church Commercial 295CT



**NOTE:** All vitreous china dimensions shown in these drawings are nominal. Dimensions can vary within the tolerances established in the governing ASME A112.19.2/CSA B45.1 standard. Please take this into consideration when planning rough-in and plumbing layouts.

### Product Specification

Elongated water closet shall be made of vitreous china with a 1-1/2" top spud. Bowl shall be ADA compliant when installed at required height of 17" from floor to top of fixture. Water closet shall be floor mounted with bedpan lugs. Water Closet shall be Sloan Model ST-2029-A-BPL.

\* Please note that this model is fully interchangeable with Models: ST-2020-A, ST-2022-A, and ST-2023-A and matches all dimensional and performance parameters.

\*\* This model meets the requirements for a High Efficiency Toilet when used with a high efficiency flushometer (1.28 gpf/4.8 Lpf or 1.1/1.6 gpf-4.2/6.0 Lpf dual-flush).



Meets the American Disabilities Guidelines and ANSI A117.1 requirements when installed according to these requirements.

### NOTE:

Plumbing System Requirements

- ✓ Minimum **Flowing** Pressure: 25 PSI
- ✓ Maximum Static Pressure: 80 PSI
- ✓ Minimum Flow Rate: 18 gpm



This space for Architect/Engineer approval.	
Job Name	Date
Model Specified	Quantity
Variations Specified	
Customer/Wholesaler	
Contractor	
Architect	

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Franklin Park, IL 60131  
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# Section 7.0 – Appendix B – Water



Model  
**ST-2309 Universal Junior Toilet**  
 Top Spud Universal Vitreous China Water Closet

### DESCRIPTION

Complete vitreous china water closet.

### Flush Cycle

Model ST-2309 Universal Junior Toilet  
 (1.1 to 1.6 gpf/4.2 to 6.0 Lpf)  
 Flush volume is determined by the flushometer used with toilet.  
 Code Number: 2102309



### SPECIFICATIONS

#### Water Closet

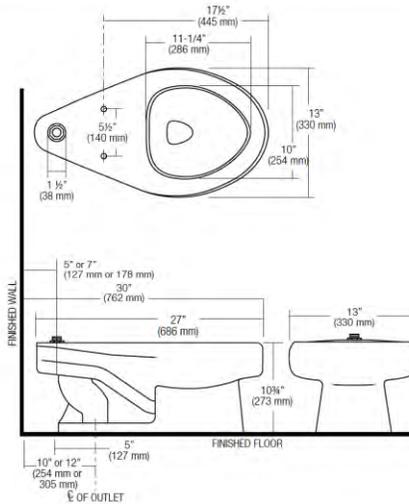
- Vitreous China
- 1½" (3.81 cm) top spud inlet
- 10-3/4" rim height
- Elongated bowl
- Siphon jet flushing action
- 10" (25.4 cm) rough-in
- Water spot area 10-1/8" (25.7 cm) 9-3/8" (23.8 cm)
- Water closet compliant with applicable sections of ASME A112.19.2/CSA B45.1

#### Colors/Finishes

- White

#### Recommended Accessory

- Compatible with toilet seat models Bemis BB955CT Church 1580CT Beneke 323-6



**NOTE:** All vitreous china dimensions shown in these drawings are nominal. Dimensions can vary within the tolerances established in the governing ASME A112.19.2/CSA B45.1 standard. Please take this into consideration when planning rough-in and plumbing layouts.

#### Product Specification

Elongated vitreous china water closet shall have a 1-1/2" top spud water supply. Water closet shall have a rim height from floor of 10-3/4" and a 10" rough-in. Water closet shall be a Sloan model number ST-2309-A.

\*\* This model meets the requirements for a High-Efficiency Toilet when used with a high-efficiency flushometer (1.28 gpf/4.8 Lpf or 1.1/1.6 gpf - 4.2/6.0 Lpf dual-flush).



Meets the American Disabilities Guidelines for Children's Environment when installed according to these requirements.

#### NOTE: Plumbing System Requirements

- ✓ Minimum **Flowing** Pressure: 25 PSI
- ✓ Maximum Static Pressure: 80 PSI
- ✓ Minimum Flow Rate: 18 GPM

This space for Architect/Engineer approval	
Job Name	Date
Model Specified	Quantity
Variations Specified	
Customer/Wholesaler	
Contractor	
Architect	

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#### Headquarters

10500 Seymour Avenue  
 Franklin Park, IL 60131  
 P: 847.671.4300 / 800.9.VALVE.9  
 F: 847.671.6944 / 800.447.8329  
 customer.service@sloanvalve.com  
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# Section 7.0 – Appendix B – Water



## Standard Washdown Urinal Fixture Model SU-1009

► **Code Number**

1101009

► **Description**

Vitreous china washdown retrofit urinal

► **Flush Cycle**

0.125 to 0.5 gpf/0.5 to 1.9 Lpf

Flush volume is determined by the flushometer used with fixture

► **Fixture Specifications**

- White Vitreous China
- ¾" I.P.S. top spud inlet
- 2" NPT outlet flange
- All mounting hardware included
- Integral flushing rim
- Vandal resistant strainer assembly included
- 100% factory flush tested
- Washdown flushing action

► **Plumbing System Requirements**

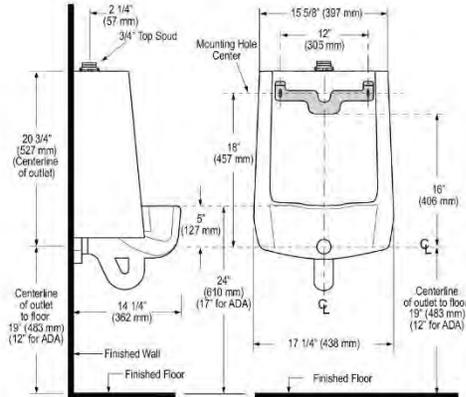
- Minimum Flow Rate: 1.8 GPM
- Maximum Static Pressure: 80 PSI
- Minimum Flowing Pressure: 25 PSI

► **Product Specification**

- Washdown urinal shall be made of vitreous china with a ¾" top spud. Urinal shall have a 2" NPT outlet flange. Urinal shall include a removable strainer, inlet spud and hanger. Urinal shall be Sloan Model SU-1009.

► **Notes**

- This model is fully interchangeable with Models SU-1000, SU-1002 & SU-1005 and matches all dimensional and performance parameters.
- All information contained in this document subject to change without written notice
- NOTE: All vitreous china dimensions shown in these drawings are nominal and not to scale. Dimensions can vary within the tolerances established in the governing ASME A112.19/CSA B45.1 standard. It is important to consider this when planning rough-in and plumbing layouts.



► **Compliance & Certifications**



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# Section 7.0 – Appendix B – Water



## Retrofit Washdown Urinal Fixture Model SU-1209

► **Code Number**

1101209

► **Description**

Vitreous china washdown retrofit urinal

► **Flush Cycle**

0.125 to 0.5 gpf/0.5 to 1.9 Lpf

Flush volume is determined by the flushometer used with fixture

► **Fixture Specifications**

- White Vitreous China
- Large footprint to cover old caulk lines
- 3/4" I.P.S. top spud inlet
- 2" NPT outlet flange
- All mounting hardware included
- Integral flushing rim
- Vandal resistant strainer assembly included
- 100% factory flush tested
- Washdown flushing action

► **Plumbing System Requirements**

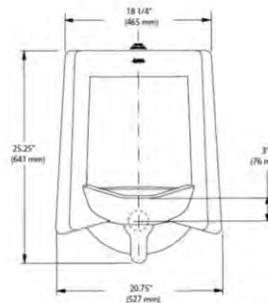
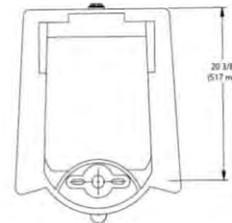
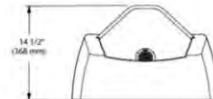
- Minimum Flow Rate: 18 GPM
- Maximum Static Pressure: 80 PSI
- Minimum Flowing Pressure: 25 PSI

► **Product Specification**

- Washdown urinal shall be made of vitreous china with a 3/4" top spud. Urinal shall have a 2" NPT outlet flange. Urinal shall include a removable strainer, inlet spud and hanger. Urinal shall be Sloan Model SU-1209.

► **Notes**

- This model is fully interchangeable with Models SU-1200, SU-1202 & SU-1205 and matches all dimensional and performance parameters.
- All information contained in this document subject to change without written notice
- NOTE: All vitreous china dimensions shown in these drawings are nominal and not to scale. Dimensions can vary within the tolerances established in the governing ASME A112.19/CSA B45.1 standard. It is important to consider this when planning rough-in and plumbing layouts.



► **Compliance & Certifications**



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# Section 8.0 – Appendix C – HVAC

ID	Location	Serial Number	Tons	Year
C-3	Bldg. 102	2G7363ADAAF130603199	5	2006
C-4	Bldg. 102	1X5643ADAAF159728276	5	1997
C-5	Bldg. 102	7323F410509298	5	2005
C-6	Bldg. 102	1X5643ADAAF159728269	5	1997
C-7	Bldg. 102	2G7361ADAAF130607223	3.5	2006
C-8	Bldg. 102	1X5639ADAAF449613676	4	1996
A-1	Bldg. 106	1X5643ADAAF139714332	5	1997
A-2	Bldg. 106	1X5643ADAAF139714338	5	1997
A-3	Bldg. 106	1X5643ADAAF449613461	5	1996
A-4	Bldg. 106	2G7503ADAAF151002978	5	2010

# Section 8.0 – Appendix C – HVAC

## HVAC Product Data

 Package Gas Electric  
RKPN/RKQN Series

**Ruud Commercial Achiever® Series  
Package Gas Electric Unit**



**RKPN- 14 SEER Series**  
**RKQN- 15 SEER Series**

Nominal Sizes 3-5 Tons [10.6-17.6 kW]



*"Proper sizing and installation of equipment is critical to achieve optimal performance. Ask your Contractor for details or visit [www.energystar.gov](http://www.energystar.gov)."*

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# Section 8.0 – Appendix C – HVAC

Unit Features & Benefits  
RKPN/RKQN Series



RKPN - A036, A048, A060  
RKQN - A036, A048, A060

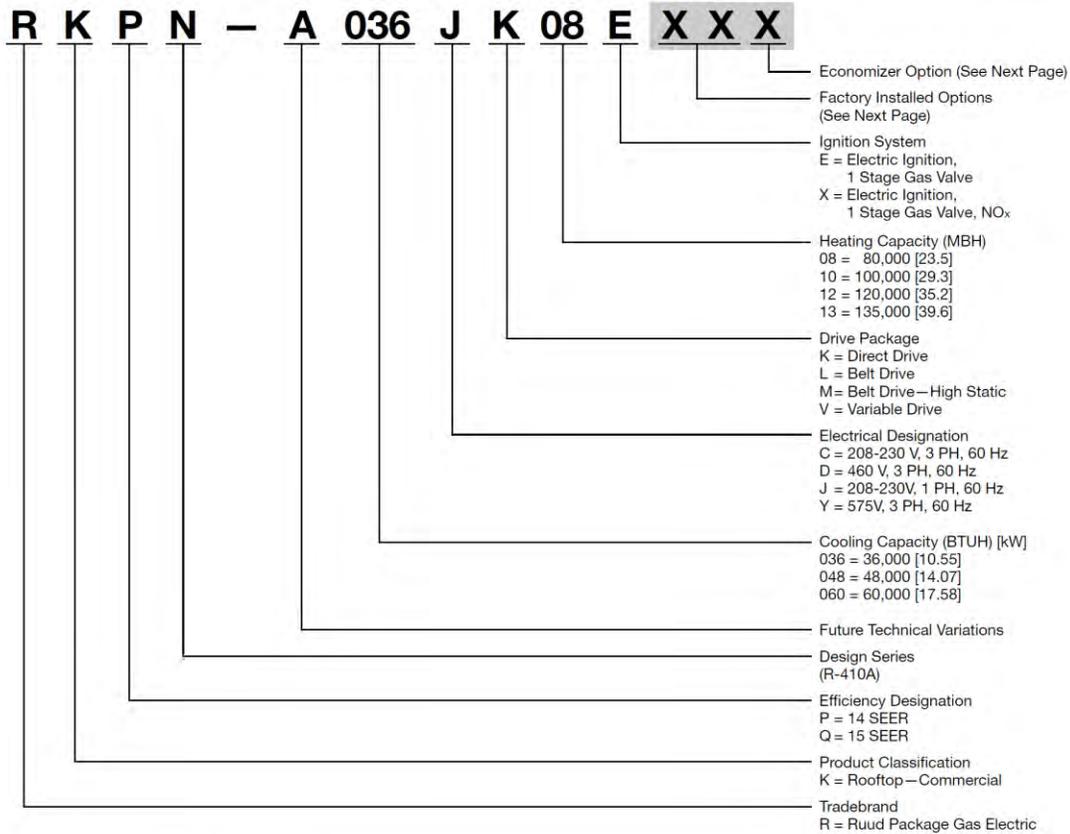
## RKPN-/RKQN- STANDARD FEATURES INCLUDE:

- R-410A HFC refrigerant.
- Complete factory charged, wired and run tested.
- Scroll compressors with internal line break overload and high-pressure protection.
- Single stage compressor on all models (except RKQN-A060 two stage Ultra Tech).
- Convertible airflow.
- TXV refrigerant metering system on each circuit.
- High Pressure and Low Pressure/Loss of charge protection standard on all models.
- Solid Core liquid line filter drier on each circuit.
- Single slab, Micro Channel designed evaporator coil facilitate easy cleaning for maintained high efficiencies.
- Cooling operation up to 125 degree F ambient.
- Easily removable filter, blower, gas heat, and compressor/ control access panels permits prompt service.
- One piece top cover and one piece base pan with drawn supply and return opening for superior water management.
- Externally mounted refrigerant gauge ports for easy service diagnostics.
- Easy to install plug-in; slip in, 100% fully modulating economizer.
- Forkable base rails for easy handling and lifting.
- Single point electrical and gas connections.
- Direct drive or high performance belt drive motor with variable pitch pulleys and quick adjust belt system.
- Permanently lubricated evaporator, condenser and gas heat inducer motors.
- Condenser motors are internally protected, totally enclosed with shaft down design.
- 1 inch filter standard with slide out design. Will accept 2 inch filter.
- Single stage gas valve, direct spark ignition, and induced draft for efficiency and reliability.
- Improved Gas Heating Efficiency (AFUE: 81%).
- Tubular heat exchange for long life and induced draft for efficiency and reliability.
- Solid state furnace control with on board diagnostics.
- Colored and labeled wiring.
- Molded compressor plug.
- Through the base gas and electric.
- Micro Channel evaporators and condenser delivers superior performance with less refrigerant charge and less weight than conventional copper tube/aluminum fin coils. In addition the all aluminum design has superior formicary corrosion protection and less potential for leaks due to elimination of tube rubbing potential. Its easier to clean and has a more robust surface.

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# Section 8.0 – Appendix C – HVAC

## Model Number Identification RKPN/RKQN Series



[ ] Designates Metric Conversions

# Section 8.0 – Appendix C – HVAC

General Data  
RKPN Series

## NOM. SIZES 3-5 TONS [10.6-17.6 kW]

Model RKPN- Series	A036CM08	A036CM12	A036DK08	A036DK12
<b>Cooling Performance<sup>1</sup></b>				<b>CONTINUED →</b>
Gross Cooling Capacity Btu [kW]	36,200 [10.61]	36,200 [10.61]	36,200 [10.61]	36,200 [10.61]
EER/SEER <sup>2</sup>	11.6/14	11.6/14	11.6/14	11.6/14
Nominal CFM/AHRI Rated CFM [L/s]	1200/1250 [566/590]	1200/1250 [566/590]	1200/1250 [566/590]	1200/1250 [566/590]
AHRI Net Cooling Capacity Btu [kW]	34,600 [10.14]	34,600 [10.14]	34,600 [10.14]	34,600 [10.14]
Net Sensible Capacity Btu [kW]	25,300 [7.41]	25,300 [7.41]	25,300 [7.41]	25,300 [7.41]
Net Latent Capacity Btu [kW]	9,300 [2.72]	9,300 [2.72]	9,300 [2.72]	9,300 [2.72]
Net System Power kW	2.95	2.95	2.95	2.95
<b>Heating Performance (Gas)<sup>3</sup></b>				
Heating Input Btu [kW]	80,000 [23.44]	120,000 [35.16]	80,000 [23.44]	120,000 [35.16]
Heating Output Btu [kW]	64,800 [18.99]	97,200 [28.48]	64,800 [18.99]	97,200 [28.48]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	40-70 [22.2-38.9]	25-55 [13.9-30.6]	40-70 [22.2-38.9]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	6	4	6
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>4</sup></b>	78	78	78	78
<b>Outdoor Coil—Fin Type</b>	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.7 [18]	0.7 [18]	0.7 [18]	0.7 [18]
Face Area sq. ft. [sq. m]	13.9 [1.29]	13.9 [1.29]	13.9 [1.29]	13.9 [1.29]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil—Fin Type</b>	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25]	1 [25]	1 [25]	1 [25]
Face Area sq. ft. [sq. m]	4.8 [0.45]	4.8 [0.45]	4.8 [0.45]	4.8 [0.45]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
<b>Outdoor Fan—Type</b>	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3680 [1737]	3680 [1737]	3680 [1737]	3680 [1737]
No. Motors/HP	1 at 1/3 HP			
Motor RPM	1075	1075	1075	1075
<b>Indoor Fan—Type</b>	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x10 [254x254]	1/10x10 [254x254]	1/10x10 [254x254]	1/10x10 [254x254]
Drive Type	Belt (Adjustable)	Belt (Adjustable)	Direct	Direct
No. Speeds	Single	Single	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	1/2
Motor RPM	1725	1725	1075	1075
Motor Frame Size	48	48	48	48
<b>Filter—Type</b>	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]
<b>Refrigerant Charge Oz. [g]</b>	54 [1531]	54 [1531]	54 [1531]	54 [1531]
<b>Weights</b>				
Net Weight lbs. [kg]	527 [239]	519 [236]	509 [231]	519 [236]
Ship Weight lbs. [kg]	534 [242]	527 [239]	516 [234]	527 [239]

See Page 34 for Notes.

[ ] Designates Metric Conversions

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# Section 8.0 – Appendix C – HVAC

General Data  
RKPN Series

## NOM. SIZES 3-5 TONS [10.6-17.6 kW]

Model RKPN- Series	A048CM13	A048DK08	A048DK10	A048DK13
<b>Cooling Performance<sup>1</sup></b>				<b>CONTINUED</b> →
Gross Cooling Capacity Btu [kW]	48,000 [14.06]	48,000 [14.06]	48,000 [14.06]	48,000 [14.06]
EER/SEER <sup>2</sup>	11.6/14	11.6/14	11.6/14	11.6/14
Nominal CFM/AHRI Rated CFM [L/s]	1600/1500 [755/708]	1600/1500 [755/708]	1600/1500 [755/708]	1600/1500 [755/708]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]
Net Latent Capacity Btu [kW]	12,000 [3.52]	12,000 [3.52]	12,000 [3.52]	12,000 [3.52]
Net System Power kW	3.93	3.93	3.93	3.93
<b>Heating Performance (Gas)<sup>3</sup></b>				
Heating Input Btu [kW]	135,000 [39.55]	80,000 [23.44]	100,000 [29.3]	135,000 [39.55]
Heating Output Btu [kW]	109,350 [32.04]	64,800 [18.99]	81,000 [23.73]	109,400 [32.05]
Temperature Rise Range °F [°C]	40-70 [22.2-38.9]	25-55 [13.9-30.6]	30-60 [16.7-33.3]	40-70 [22.2-38.9]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	6	4	5	6
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>4</sup></b>	78	78	78	78
<b>Outdoor Coil—Fin Type</b>	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.7 [18]	0.7 [18]	0.7 [18]	0.7 [18]
Face Area sq. ft. [sq. m]	16.4 [1.52]	16.4 [1.52]	16.4 [1.52]	16.4 [1.52]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil—Fin Type</b>	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.3 [32]	1.3 [32]	1.3 [32]	1.3 [32]
Face Area sq. ft. [sq. m]	4.8 [0.45]	4.8 [0.45]	4.8 [0.45]	4.8 [0.45]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
<b>Outdoor Fan—Type</b>	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3680 [1737]	3680 [1737]	3680 [1737]	3680 [1737]
No. Motors/HP	1 at 1/3 HP			
Motor RPM	1075	1075	1075	1075
<b>Indoor Fan—Type</b>	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x10 [254x254]	1/10x10 [254x254]	1/10x10 [254x254]	1/10x10 [254x254]
Drive Type	Belt (Adjustable)	Direct	Direct	Direct
No. Speeds	Single	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	1/2	1/2	1/2
Motor RPM	1725	1075	1075	1075
Motor Frame Size	56	48	48	48
<b>Filter—Type</b>	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]
<b>Refrigerant Charge Oz. [g]</b>	68 [1928]	68 [1928]	68 [1928]	68 [1928]
<b>Weights</b>				
Net Weight lbs. [kg]	562 [255]	533 [242]	538 [244]	543 [246]
Ship Weight lbs. [kg]	569 [258]	540 [245]	545 [247]	550 [250]

See Page 34 for Notes.

[ ] Designates Metric Conversions

# Section 8.0 – Appendix C – HVAC

General Data  
RKP Series

## NOM. SIZES 3-5 TONS [10.6-17.6 kW]

Model RKP- Series	A060CM13	A060DK10	A060DK13	A060DL10
<b>Cooling Performance<sup>1</sup></b>				<b>CONTINUED →</b>
Gross Cooling Capacity Btu [kW]	60,000 [17.58]	60,000 [17.58]	60,000 [17.58]	60,000 [17.58]
EER/SEER <sup>2</sup>	11.6/14	11.6/14	11.6/14	11.6/14
Nominal CFM/AHRI Rated CFM [L/s]	2000/1800 [944/849]	2000/1800 [944/849]	2000/1800 [944/849]	2000/1800 [944/849]
AHRI Net Cooling Capacity Btu [kW]	58,500 [17.14]	58,500 [17.14]	58,500 [17.14]	58,500 [17.14]
Net Sensible Capacity Btu [kW]	41,700 [12.22]	41,700 [12.22]	41,700 [12.22]	41,700 [12.22]
Net Latent Capacity Btu [kW]	16,800 [4.92]	16,800 [4.92]	16,800 [4.92]	16,800 [4.92]
Net System Power kW	4.95	4.95	4.95	4.95
<b>Heating Performance (Gas)<sup>3</sup></b>				
Heating Input Btu [kW]	135,000 [39.55]	100,000 [29.3]	135,000 [39.55]	100,000 [29.3]
Heating Output Btu [kW]	109,400 [32.05]	81,000 [23.73]	109,400 [32.05]	81,000 [23.73]
Temperature Rise Range °F [°C]	40-70 [22.2-38.9]	30-60 [16.7-33.3]	40-70 [22.2-38.9]	30-60 [16.7-33.3]
AFUE %	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	6	5	6	5
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>4</sup></b>	83	83	83	83
<b>Outdoor Coil—Fin Type</b>	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.7 [18]	0.7 [18]	0.7 [18]	0.7 [18]
Face Area sq. ft. [sq. m]	16.4 [1.52]	16.4 [1.52]	16.4 [1.52]	16.4 [1.52]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil—Fin Type</b>	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.3 [32]	1.3 [32]	1.3 [32]	1.3 [32]
Face Area sq. ft. [sq. m]	4.8 [0.45]	4.8 [0.45]	4.8 [0.45]	4.8 [0.45]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
<b>Outdoor Fan—Type</b>	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3930 [1855]	3930 [1855]	3930 [1855]	3930 [1855]
No. Motors/HP	1 at 1/3 HP			
Motor RPM	1075	1075	1075	1075
<b>Indoor Fan—Type</b>	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x10 [279x254]	1/10x10 [254x254]	1/10x10 [254x254]	1/11x10 [279x254]
Drive Type	Belt (Adjustable)	Direct	Direct	Belt (Adjustable)
No. Speeds	Single	Multiple	Multiple	Single
No. Motors	1	1	1	1
Motor HP	1	1	1	3/4
Motor RPM	1725	1075	1075	1725
Motor Frame Size	56	48	48	56
<b>Filter—Type</b>	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635]
	(1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635]
<b>Refrigerant Charge Oz. [g]</b>	63 [1786]	63 [1786]	63 [1786]	63 [1786]
<b>Weights</b>				
Net Weight lbs. [kg]	574 [260]	552 [250]	557 [253]	564 [256]
Ship Weight lbs. [kg]	581 [264]	559 [254]	564 [256]	571 [259]

See Page 34 for Notes.

[ ] Designates Metric Conversions

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#	PROPERTY NAME	ECM 4
		Energy Management System Savings
1	Wastewater Administration	X
2	Bus Barns (2) & Warehouse	X
3	Parks & Recreation	X
4	Police Department	X
5	City Administration	X
6	Community Development	X
7	Courthouse	X
8	IT/Legal/Public Works	X

# Section 9.0 – Appendix D – Building Automation

## EMS Product Data

# User Guide ecobee3

©2014 ecobee  
250 University Ave | Suite 400  
Toronto | Ontario | M5H 3E5  
Canada Toll free 1.877.932.6233  
[www.ecobee.com](http://www.ecobee.com)  
e3-UG-R003a

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# Section 9.0 – Appendix D – Building Automation

## Overview

Do you hear that?

That's the sound of hundreds of thousands of ecobee-ers welcoming you to the hive.

Congratulations on the purchase of your new ecobee3 smarter wi-fi thermostat with remote sensor. This guide will provide an overview of the features and capabilities of the new product and will help you get up and running.

Make sure you also take a look at the Quick Start Guide and the Installation Guide that come in the box with your ecobee3.

- **Remote sensors** – Deliver the right temperature in the rooms that matter most as well as detect when these rooms are occupied.
- **Smart** – Your ecobee3 understands your home's unique energy profile and the weather outside, making sure you're comfortable at all times.
- **Intuitive** – With its 3.5" full color touch display, your ecobee3 has intuitive controls just like your smartphone.
- **Accessible from anywhere** – Monitor and control the temperature in your home anytime, anywhere, on your smartphone, tablet, or computer.

## Getting Help

If you have any questions, we have answers. Visit <https://www.ecobee.com/taqs/ecobee-3> for tutorials, how-to videos and FAQs.

Technical support is also available by email or by phone:

support@ecobee.com  
1.877.932.6233 (North America)  
1.647.428.2220 (International)

## Touch Screen

Your ecobee3 has a touch screen, similar to that used in smartphones and tablets.



Touch items to select or activate them. For menus with a >, this will expand the menu to display additional options or submenus.



Swipe up and down to display additional information. Swiping on a temperature bar will also adjust the settings up or down.



Swipe left and right to scroll horizontal lists that contain multiple items to choose from.

Exit or go back

To exit a submenu, touch <. To close the main menu, touch v.

# Section 9.0 – Appendix D – Building Automation

## Web Portal

Once registered (page 9), you can log in to your web portal and manage your ecobee3 from your computer or tablet.



From the web portal, you can:

- Control current temperature and operation
- Adjust your schedule
- Set vacation periods
- View the weather forecast for your area
- Set thermostat preferences
- Manage all your ecobee thermostats
- Save energy with HomeIQ and insights

To access your customized web portal, visit [ecobee.com](http://ecobee.com) and click on the **Login** link.

To select a tile, touch or click on it. To close a tile and return back to the main screen, touch or click  (top-right corner).



## Guided Setup Process

The Installation Guide that ships with your ecobee has the necessary instructions to wire up and install your device. After installing your ecobee3 thermostat on the wall and powering it up, you will be guided through the first-run process. Complete these steps to get it configured and connected online so you can make use of all its smart features.

This will take you through the following steps:

- Wiring configuration and equipment configuration
- Setting your preferences
- Wi-Fi configuration
- Registering your ecobee3

If you make a mistake at any time or want to review a setting, you can touch Back to display the previous screen.

### Step 1. Wiring Configuration

Your ecobee3 automatically detects and displays which wires are connected to it when it first powers on. It will warn you if you've wired a configuration that it doesn't recognize.

If the reported connections are different than what you have actually connected, call ecobee support for guidance.

Touch Next to continue.

### Step 2. Accessory Confirmation

Your ecobee3 will ask if you have any accessories like humidifier, dehumidifier, or ventilator connected to it.

Touch Yes if you have one of these devices; otherwise touch No.

If you selected Yes, you will need to specify if the accessory is internally powered:

- Touch Yes if your accessory is externally powered (i.e. the ecobee3 does not provide power to it). This is the case if there are connected to both ACC+ and ACC-.

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- Touch No if your accessory receives power from your ecobee3. There will be a single wire to ACC+.

*Need Help? See page 33 for information on how to determine your accessory device's power configuration.*

Touch Next to continue.

## Step 3. Temperature Preference Setup

Your ecobee3 will ask you to select Fahrenheit or Celsius as your preferred temperature units. Touch Next to continue.

## Step 4. Equipment Configuration

Your ecobee3 will ask you to configure your equipment. Depending on your wiring, different options will be available. These options will configure basic system operation as well as optimize the system for your specific type of equipment.

Review the list to see if any devices require additional configuration ("Configuration needed") and if the default settings are valid.

Once you are done, touch Next to continue.

### Heat Pumps

If you have a heat pump installed:

1. Select the heat pump menu.
2. Select Air to Air or Geothermal depending on the type of your heat pump system
3. Specify what the heat pump runs when the O/B Reversing Valve is engaged: On Cool runs cooling when O/B engages (most cases), or On Heat runs heating when O/B engages.
4. Touch Next. You will be returned to the Equipment configuration menu.

### Furnaces/Boilers

If you have a furnace or boiler installed:

1. Select the heating menu.

2. Configure the heater type:

- Furnace: Optimizes ecobee3 for systems using forced air
- Boiler: Optimizes your ecobee3 for systems using radiators or in-floor heat.

3. Touch Next. You will be returned to the Equipment configuration menu.

### Fans

If your furnace uses forced air, you may configure fan operation:

1. Select Fan menu.
2. Select Fan operation:
  - Thermostat: Your ecobee3 thermostat controls the fan during heat and cool cycles.
  - HVAC: Your equipment controls the fan during heat and cool cycles (typical configuration).
3. Touch Next. You will be returned to the Equipment configuration menu.

### Humidifier

If you have a humidifier installed:

1. Select Accessory menu.
2. Select Humidifier.
3. Touch Next.
4. Select the type of humidifier you have: Evaporative or Steam. If unsure, select Evaporative.
5. Touch Next. You will be returned to the Equipment configuration menu.

### Dehumidifier

If you have a dehumidifier installed:

1. Select Accessory menu.
2. Select Dehumidifier.

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3. Touch Next.
4. Select Open if the dehumidifier is active when the relay is open; otherwise select Closed. If unsure, select Closed (if the dehumidifier runs when it shouldn't, you can change this option in the Equipment Configuration menu (page 25).
5. Touch Next. You will be returned to the Equipment configuration menu.

## Ventilators (ERV/HRV)

If you have a ventilator (ventilator, ERV or HRV) installed:

1. Select Accessory menu.
2. Select Ventilator.
3. Touch Next.
4. Select the type of ventilator you have installed: Ventilator, Energy Recovery Ventilator or Heat Recovery Ventilator.
5. Touch Next.
6. Select the preferred minimum runtime (min/hr) when your home is occupied and the runtime for when your home is unoccupied. If unsure, keep the default 20 min/hr value or contact a professional.
7. For HRVs, select whether or not you would like to use it to use it to dehumidify in winter.
8. For Ventilators, select whether or not you would like to enable free cooling.
9. Touch Next. You will be returned to the Equipment configuration menu.

## Step 5. Name Your Thermostat

After configuring your equipment, you will be prompted to give your ecobee3 a name. Select a name from the list or enter your own using the on-screen keyboard.

This name will appear in your web portal, so pick a name that makes it easy to identify your thermostat (this is especially important if you have more than one in your house).

Touch Next to continue.

## Step 6. Configure Ideal Temperatures

Next, slide the set-point bubble up and down to select the preferred, normal temperature for your home during winter and summer (touch Next after each). This setting will be used to generate the default comfort settings.

## Step 7. Select Current HVAC System Mode

Select the operating mode of your HVAC equipment. For example, if you want to set your HVAC system to heat, select Heat. If you do not want the system to run, select Off.

Touch Next to continue.

## Step 8. Configure Sensor Settings

Your ecobee3 includes sensors that can determine when you are home. You can have your thermostat automatically go into energy savings mode when you are away. For a detailed description of how the settings work, see page 14.

1. Enable or disable Smart Home/Away setting.  
If enabled, your ecobee3 senses when you are home during a scheduled Away period, or away during a scheduled Home period, and will automatically override your scheduled settings to maximize comfort and savings.
2. Touch Next to continue.

## Step 9. Wi-Fi Configuration

To get the most out of your ecobee3, it needs to connect to your home's Wi-Fi network.

Touch Next to configure your network settings. If you do not want the ecobee3 to connect to the Internet, touch Skip and confirm the action by pressing Next.

There are two ways to configure your Wi-Fi networks settings. If you have an Apple iPad, iPhone, iPad or a Mac computer, you can use the Wireless Accessory Configuration to setup your Wi-Fi password. If you do not, you can still find your network and setup the password manually.

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## Wireless Accessory Configuration

WAC is very convenient as it does not require remembering the Wi-Fi password or typing it in. From the Wi-Fi Configuration screen, choose the first option Use iPhone, iPad or iPod.

Then follow the instructions displayed on the thermostat. Once the setup is complete, you will see the Connection Completed screen on the thermostat and the Setup Complete screen on the phone. You will now be connected to the same Wi-Fi network as the phone, typically your home Wi-Fi network.

## Manual Configuration

When configuring your network settings, your ecobee3 will display a list of all visible Wi-Fi networks along with their signal strength. If your network has weak signal strength, try moving your router closer to the ecobee3.

If your network appears in the list

1. Select your network from the list
2. Touch Next.
3. Enter your password, if prompted.
4. After connecting to the Internet, your ecobee3 will register itself with the ecobee servers and provide you with a 4-digit registration code.
5. Write down the 4-digit code. **You will need it when registering your ecobee3 (You can register from either ecobee's Mobile App or Web Portal).**

If it's not listed, select *My network is not visible* and touch Next (you will have to enter your network parameters manually, including the SSID).

1. If your network is password-protected, enter the password.

2. This will take you through the manual Wi-Fi set-up process where you will have to enter in information about your network such as if it's a DHCP or a static IP, the network SSID name, the encryption, the password etc.
3. After connecting to the Internet, your ecobee3 will register itself with the ecobee servers and provide you with a 4-digit code.
4. Write down the 4-digit code. **You will need it when registering your ecobee3 (You can register from either ecobee's Mobile App or Web Portal).**

Touch Next to continue.

## Step 10. Date & Time

The Date & Time screen lets you configure your time zone settings. If you didn't configure Wi-Fi in the previous step, you may need to reconfigure the current time and date. These settings are required in order for the scheduling features of your ecobee3 to work properly.

If Wi-Fi is configured:

1. Touch Time zone.
2. Select your country from the list and touch Next.
3. Select your time zone by picking the name of the nearest community from the list.
4. Touch Next.
5. Touch Next to continue.

If Wi-Fi is not configured:

1. Touch Date.
2. Slide up and down to set the current date and touch Save
3. Touch Time.
4. Slide up and down to set the current time and touch Save.
5. Touch Time zone.
6. Select your country from the list and touch Next.
7. Select your time zone by picking the name of the nearest community from the list.

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8. Touch Next.
9. Touch Next to continue.

## Step 11. Web Portal/Mobile App Registration

After setting up Wi-Fi on your ecobee3 and obtaining the registration code, you need to configure your account from either the ecobee3 Mobile App or the Web Portal.

To register from the Web Portal:

1. From a web browser, visit [www.ecobee.com](http://www.ecobee.com)
2. Click on the **Register** link.
3. Follow the on-screen instructions to register your account.

To register from the Mobile App:

1. Download the app to your iPhone or Android device from the respective app store.
2. Launch the ecobee3 app.
3. Follow the on-screen instructions to register your account.

If you have already registered one thermostat and are adding a subsequent HomeKit enabled thermostat using the iOS mobile app, the process is very simple.

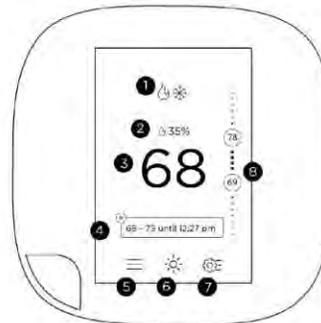
1. Locate your thermostat on the list, using its name.
2. To identify which thermostat you are seeing, press Say Hi and a message will show up on the thermostat allowing you to identify it.
3. Then select Add.
4. Enter the code from the thermostat on the phone and press OK.
5. Select the room for the thermostat and say Next.
6. The thermostat has been added & registered.

## Basic Functions

The bright, easy-to-read touch screen on your ecobee3 thermostat makes it simple to review and adjust settings any time you want.

## Home Screen

Your ecobee3 will automatically display the home screen when you approach it.



- 1 Current system mode and any equipment currently running
- 2 Current relative humidity
- 3 Current indoor temperature
- 4 Messages indicating any special operating mode or state (e.g. resume, temperature hold, etc)
- 5 Main menu. If a dot appears on the icon, you have important message(s) to read.
- 6 Weather forecast
- 7 Quick Change menu

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- 8 Adjustable heat and cool set points. If the System Mode is set Auto, both are displayed; otherwise only heat or cool is displayed.

## Standby Screen

The standby screen activates whenever the thermostat is not in use. It shows the current indoor temperature and outdoor weather conditions.



- 1 Current indoor temperature
- 2 Current outdoor weather and temperature

The standby screen is configurable. You can adjust:

- Standby screen activation time (page 22)
- Standby screen brightness (page 21)

## Adjusting the Temperature

You can override the scheduled temperature by moving the bubble on the temperature slider up or down. The blue number represents the cool set point; the orange number represents the heat set point.

The new desired temperature will be the set point used for the Hold. The duration of the Hold is the last configured value (the default value is Until I change it, meaning it keeps the value indefinitely, until you choose to revert to the schedule or change it). You can adjust the default Hold time in the Preferences menu (page 22).

To cancel the current Hold, touch the Hold message box displayed on the Home screen. You can touch the box anywhere and not just the X displayed on the box.

## Main Menu

To show the main menu, touch the screen and touch ☰.

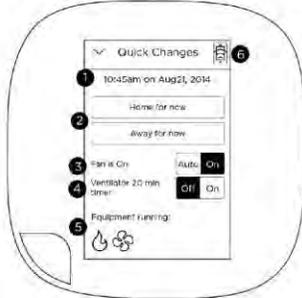
- Registration Registers your ecobee3. This menu item disappears after you have registered.
- System Selects mode of operation: heat/cool/auto, fan on/off, and any accessory (page 12)
- Sensors Manages sensors and lets you adjust Smart Home/Away and Follow Me settings (page 14)
- Schedule Manages temperature according to time and day (page 15)
- Comfort Settings Manages temperature for different climate states (Away, Home, Sleep) (page 14)
- Vacation Manages thermostat settings for a vacation period (page 16)
- Reminders & Alerts Displays any reminder or alert messages (page 18)
- Settings Manages display preferences (°F/°C, date, brightness), Wi-Fi, and equipment operating parameters (thresholds, sensors, etc) (page 21)
- About Displays technical information about your

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thermostat (page 18).

## Quick Changes

The Quick Changes screen lets you quickly adjust the operation of the ecobee3 and your equipment.



- 1 Current time and date display
- 2 Home and Away buttons. Touch these buttons to override your programmed schedule. To cancel this action, touch the message box on the Home screen.
- 3 Toggle fan between Auto and On. Touch On to run the fan continuously. Touch Auto to run the fan according to the Minimum Runtime per Hour setting (page 25).
- 4 If you have a ventilator, ERV or HRV installed, touch On to run the device for 20 minutes (page 27)
- 5 Icons indicate if heat, cool, fan, and any accessories are actively running (see page 11 for icon descriptions)

- 6 Internet connection and ecobee server connection status. If this icon is red, you can contact our technical support team for help (page 4).

*Hint: You can also apply quick changes from the web portal by clicking on the Fan or Quick Changes tiles.*

## Weather

Touch the Weather icon to display a local weather forecast for the week as well as a detailed daily forecast.



- 1 Current weather conditions
- 2 Current outdoor temperature
- 3 Probability of precipitation (POP), relative humidity, and daily high/low temperature
- 4 24-hour weather forecast

*Note: To receive the local weather forecast, you must first register your thermostat (page 23). For a complete list of weather icons, see page 34.*

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## System Icons

The icons on the Home screen and Quick Changes menu show information about the status of your HVAC system.

-  **Heat** An orange heat icon indicates that your thermostat is calling for heat. A white heat icon indicates that your system is in heat or auto mode but is not currently calling for heat.
-  **Cool** A blue cool icon indicates that your thermostat is calling for cool. A white cool icon indicates that your system is in cool or auto mode but is not currently calling for cool.
-  **Fan** A fan icon indicates that your thermostat is calling for the fan to run.
-  **Auto** If both heat and cool icons are shown, your system is in Auto mode, meaning your ecobee3 will call for heat or cool as required.

## Selecting System Operation Mode

The System menu controls the basic operation of the different components in your HVAC system, including the heat/cool mode, fan operation, and the operation of accessories like humidifiers, dehumidifiers, and ventilators.

### HVAC System

The HVAC System settings depend on the type of system you have. Depending on your system, one or more the following options are shown:

- **Cool:** Turn on the air conditioner when the current temperature rises above the set temperature.
- **Heat:** Turn on the heat when the current temperature drops below the set temperature.
- **Auto:** Activate the heating or cooling system as required to keep your home within the configured range of set temperatures.

- **Aux:** Only use the auxiliary or backup heat source to maintain the heat set point temperature. *This option only appears if auxiliary heat is configured in the Equipment menu.*
- **Off:** Turn the system off. When the system is off, only the current temperature will be displayed on the Home screen.

### On Thermostat and Mobile:

Select Main Menu > System > HVAC System

### On Web:

Select System tile > HVAC

### Fan

The Fan menu displays the current furnace fan setting. Depending on your system, one or more of the following options are shown:

- **On:** Force fan to run continuously, regardless of the scheduled programming. The fan will also run if the System Mode is Off.
- **Auto:** Enable fan when the system is actively heating or cooling your home, or to satisfy the Minimum Fan Runtime setting (page 12).

### On Thermostat and Mobile:

Select Main Menu > Quick Changes > Fan

### On Web:

Select Fan file

### Minimum Fan Runtime (Auto mode only)

When the fan is in Auto mode, ecobee3 operates it according to the Minimum Fan Runtime setting. You can adjust this setting from 0 to 55 minutes.

When your system is in heat or cool mode, the fan will always run for this minimum amount of time. A longer runtime improves air circulation and results in a more consistent temperature than with the Auto setting while being more cost-effective than the On setting.

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Your ecobee3 will meet this minimum runtime over the hour while making sure it never runs for less than five minutes.

#### On Thermostat and Mobile:

1. Select Main Menu > System > Fan
2. Swipe left or right to adjust the value.

#### On Web:

1. Select System Tile > Fan
2. Swipe or drag left or right to adjust the value.

#### Humidifier (if installed)

The Humidifier menu enables or disables the humidifier, if installed:

- On: Run the humidifier to increase the humidity to the configured set point.
- Off: Do not operate the humidifier.
- Frost control: Automatically maintain the humidity to stay comfortable but prevent condensation or frost on your windows

To adjust the humidity set point and other options, see page 14.

#### On Thermostat and Mobile:

Select Main Menu > System > Humidifier

#### On Web:

Select System tile > Humidifier

#### Dehumidifier (if installed)

The Dehumidifier menu enables or disables the dehumidifier, if installed:

- On: Run the dehumidifier to reduce the humidity to the configured set point.
- Off: Do not operate the dehumidifier.

To adjust the dehumidifier set point, see page 13.

#### On Thermostat and Mobile:

Select Main Menu > System > Dehumidifier

#### On Web:

Select System tile > Dehumidifier

#### Ventilator/HRV/ERV (if installed)

The Ventilator/HRV/ERV menu configures the operation of a ventilator, a Heat Recovery Ventilator (HRV) or an Energy Recovery Ventilator (ERV), if installed:

- Occupied minimum runtime: Configure how many minutes per hour the device will run during occupied periods, such as when you're home or asleep.
- Unoccupied minimum runtime: Configure how many minutes per hour the device will run during unoccupied periods, such as when you're away.

Ventilation devices are important to maintain indoor air quality and, depending on where you live, this might be regulated. The amount of indoor air required to maintain sufficient indoor air quality depends on how big your house is, how many people live there, and the capacity of your ventilation device. You should consult with a local contractor who can guide you on how often you should be running your ventilation device.

For devices configured as ventilators (i.e. not HRVs or ERVs) you can enable a feature called "free cooling" on your ecobee3. When the outdoor temperatures are cooler than indoors and your system is calling for cool, your ecobee3 will turn on your ventilator to bring in outdoor air instead of running your air conditioner. To configure free cooling options, see page 27.

#### On Thermostat and Mobile:

1. Select Main Menu > System > Ventilator/HRV/ERV
2. Adjust the Occupied Min Run Time and Unoccupied Min Run Time by selecting each option and swiping left or right to adjust the values.
3. If supported by your device, enable or disable Free Cooling.

#### On Web:

1. Select System tile > Ventilator/HRV/ERV

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2. Adjust the Occupied Min Run Time and Unoccupied Min Run Time by selecting each option and swiping left or right to adjust the values.
3. If supported by your device, enable or disable Free Cooling.

## Adjusting Sensor Modes

Your ecobee3 supports wireless remote sensors that detect motion and temperature in different rooms (one was included with your thermostat). Your ecobee3 also has a built-in motion sensor. With these sensors, you can optimize the operation of your thermostat to ensure comfort in the rooms and times that matter most.

For information about installing new sensors, see the *ecobee Installation Guide*, or the documentation included with the sensor itself.

## Smart Home/Away

Smart Home/Away applies all the sensors in your network – including the sensors built-in your thermostat. It works by following your schedule unless any sensor in your network is in conflict with your schedule. In other words, if your ecobee3 senses that you are home during a scheduled Away period, or away during a scheduled Home period, it will automatically override your schedule by placing you in Smart Home/Away mode to maximize comfort (Smart Home) and savings (Smart Away).

### On Thermostat:

1. Select Main Menu > Sensors > Smart Home/Away
2. Touch Enable to have your sensor network and thermostat detect occupancy. To have your thermostat strictly follow your programmed schedule, touch Disable.

## Follow Me

Follow Me is a feature that applies to a selected group of the sensors in your network (including the sensor built-in your thermostat). It works by looking for motion triggered by any of

the selected sensors. If motion is detected, the temperature reading from that sensor will be used by your ecobee3 to decide when to operate your heating or cooling system. This ensures that you are comfortable in the rooms that you are occupying. If more than one sensor detects motion, the average of these sensors will be used. Your ecobee3 makes changes gradually when many sensors are detecting motion to make sure there are no sudden or large changes for your heating and cooling system to deal with.

When Follow Me is disabled, your ecobee3 will continuously use the average temperature readings from all the sensors that you've selected as the desired temperature to control your ecobee3. For example, suppose you have a room in your house that is far from your thermostat and you want this room to be at the thermostat's set temperature, regardless if motion is occurring. In this case, set Follow Me to Disable and only select this room. Your ecobee3 will now only use the temperature in this room to decide when to operate your heating or cooling system.

### On Thermostat:

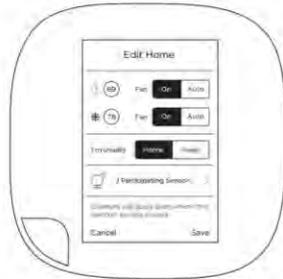
1. Select Main Menu > Sensors > Follow Me
2. Enable or disable the Follow Me feature.
3. If enabled, select which sensors are affected by pressing on each checkbox.

## Adjusting Comfort Settings

You can configure your ecobee3 to fit your schedule and comfort needs while maximizing your energy savings.

Your ecobee3 organizes your temperature and fan settings into different Comfort Settings. These settings are used in the Schedule, Smart Home and Quick Changes menus

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By default, your ecobee3 includes three configurable Comfort Settings:

- **Away:** Settings for when you are not at home.
- **Home:** The normally settings for when you are at home and awake.
- **Sleep:** Settings for when you are sleeping.

*Note: You can create new Comfort Settings (or remove them) from the Web Portal.*

#### On Thermostat and Mobile:

1. Select Main Menu > Comfort Settings
2. Select the Comfort Setting you want to customize.
3. Adjust the set points for heat and cool, as well as fan mode as required.
4. You can also now select which sensors are participating in this comfort setting.
5. Touch Save.

#### On Web:

1. Select Schedule file.
2. Select the Comfort Setting you want to customize, or select New Comfort Setting to add a new one.
3. Adjust the name, set points for heat and cool, as well as fan mode as required.

4. Select if this Comfort Setting is for when the home is Occupied or Unoccupied.
5. Select Save. The new Comfort Setting will appear in the Schedule file as well as on the thermostat itself.

To delete a Comfort Setting:

1. Select Schedule file.
2. Select the Comfort Setting you want to delete.
3. Select Delete.
4. Confirm by selecting Delete.

### Setting Your Weekly Schedule

Your heating and cooling needs change depending on the time of day, day of the week, as well as when you are home or away. For example, if there's no one in the house during the workday you might want to let the temperature go up in the summer, to reduce energy used by the air conditioning system, and down in the winter, to reduce heating energy.

The ecobee3 adapts to how your home and heating and cooling equipment perform. Intelligent algorithms combine weather data, your equipment run times and occupancy schedules to optimize performance and maximize energy savings. This means you can be comfortable when you are home and save money when you are not.



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## On Thermostat and Mobile:

1. Select Main Menu > Schedule
2. Touch the day of the week you want to adjust.
3. Select an existing scheduled activity to edit. You can also create a new activity by touching +.
4. Select Start time.
5. Swipe to select the new time value. *Note: You can only select time values that are at least 30 min after the previous activity to 30 min before the next scheduled activity (i.e. you cannot overlap activity times).*
6. Touch Save.
7. If you have added a new activity, you need to select Comfort Setting to use.
8. Touch Save.
9. Touch the Back arrow to return to the Schedule screen where you can make additional changes as required.

*Hint: You can copy the entire schedule from one day to another day (for example, if all your week days follow the same schedule). Display the first day, touch the copy button, select which days to apply the changes to, and touch Save.*

## On Web:

To edit an existing activity:

1. Select Schedule tile.
2. Select an existing scheduled activity to edit.
3. Select Start time.
4. Select Save.

To create a new activity:

1. On the Schedule tile, select Add activity.
2. Select the day.
3. Select Next.
4. Select the Comfort Setting to use during the activity.
5. Select Next.
6. Select Start time.
7. Select Save.

To copy the entire schedule from one day to another day (for example, if all your week days follow the same schedule):

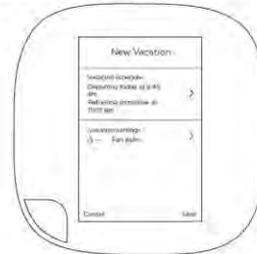
1. On the Schedule tile, select Copy.
2. Select the day to copy.
3. Select Next.
4. Select the days that will use the copied schedule (you can select more than one).
5. Select Save.

## Going on Vacation

Your ecobee3's Vacation feature helps you conserve energy while you are away for extended periods of time. It also ensures your home is comfortable when you return.

A vacation event has a start date and time, as well as an end date and time. You can enter any number of vacations, as long as each has a unique start time.

The Vacation feature overrides your programmed schedule – you can leave your Schedule settings as-is when you go away for a special or unscheduled trip.



## On Thermostat and Mobile:

1. Select Main Menu > Vacation
2. Touch + to create a new vacation event.
3. Select Vacation schedule.

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4. Enter the Departure date and time.
5. Touch the Back arrow.
6. Select Vacation settings.
7. Select Heat or Cool to enable/disable heat and cool during the vacation event.
8. Configure the set point(s) for heat and/or cool during the vacation event by selecting Heat set to or Cool set to, adjusting the temperature, and then pressing Save.
9. Touch the Back arrow.
10. Touch Save.

The vacation event is now set. You can adjust it at any time by selecting it from the Vacation menu.

To delete a vacation event:

1. Select Main Menu > Vacation
2. Select the vacation you want to delete.
3. Touch Remove (X).
4. Confirm the deletion by pressing Delete.

**On Web:**

1. Select Vacation file.
2. Select New Vacation
3. Enter the depart and return date and times
4. Select Heat and Cool.
5. Enable or disable heat and cool during the period as required.
6. Select the set points for heat and/or cool.
7. Select Save.
8. Select Fan and set the minimum fan run time per hour, if different than your normal settings.
9. Select Save.

The vacation event is now set. You can adjust it at any time by selecting it from the Vacation file.

## Caring for your Thermostat

### Cleaning

You can clean your ecobee3 screen by spraying water on to a clean, microfiber cloth. Wipe the surface of the screen with the dampened cloth.

*Note: Never spray any liquids directly onto your ecobee3.*

### Rebooting

You can reboot your ecobee3 by gently pulling the thermostat from the back plate. To pull the thermostat off the wall, make sure you that firmly hold on to the black front of the thermostat. Ensure that you are not pulling the white trim plate as that is attached to the wall.

Rebooting will not alter programming or configuration options.

### Resetting the Thermostat

At some point during the life of your ecobee3 thermostat you may want to quickly reconfigure it or restore it to the default state.

- **Reset Registration:** Deletes your registration settings (i.e. username and password). Equipment settings and personal preferences are kept as-is.
- **Reset Preferences:** Resets all your preferences, reminders, alerts and programming back to the default state.
- **Reset All:** Resets the thermostat back to its default factory settings and removes any registration information.

**On Thermostat:**

1. Select Main Menu > Settings > Reset
2. Select a reset option:
  - Reset Registration
  - Reset Preferences
  - Reset All
3. Touch Yes to confirm the reset.

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## Troubleshooting

The About menu shows technical information about your ecobee3, including:

- Thermostat name
- Software version
- Serial number
- Contact information for support
- Wi-Fi settings

This information is useful when troubleshooting network issues or contacting ecobee technical support.

### On Thermostat or Mobile:

Select Main Menu > About

### On Web:

Select About file.

## Reminders & Alerts

The Reminders and Alerts list displays the reminders and alerts that help you know if you need to attend to your HVAC system or when to perform periodic maintenance.

*NOTE: To use and receive email alerts, this thermostat must be connected to the Internet via Wi-Fi and the end-user must have a valid email address.*

### Viewing Reminders

The Reminders list displays the reminders and alerts that help the homeowner know when to perform periodic maintenance.

#### On Thermostat and Mobile:

1. Select Main Menu > Reminders & Alerts > Reminders
2. Select the reminder you want to view.
3. For example, if you receive a Furnace Filter or UV Lamp Change reminder and you have changed the filter or lamp, or arranged to have your equipment serviced, touch Filter/Lamp Changed or Service Scheduled; otherwise touch the Back arrow.

*Hint: If the frequency of the reminder is not correct, touch Edit when viewing the reminder to adjust the settings as required.*

#### On Web:

1. Select Reminders & Alerts file.
2. Select Reminders.

### Viewing Alerts

Your ecobee3 can generate alerts if the temperature in the home goes over or under a pre-programmed level. This protects the home from damage due to freezing and/or excessive heat.

This alert, along with optional technician contact information, will be displayed on the screen. If the homeowner registers the thermostat, the alert will be emailed to them and be displayed on the web portal.

#### On Thermostat and Mobile:

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1. Select Main Menu > Reminders & Alerts > Alerts
2. Select the alert you want to view.
3. Touch OK to return to the Alert list.

*Hint: If the alert is not configured correctly, touch Edit when viewing the alert to adjust the settings as required.*

**On Web:**

1. Select Reminders & Alerts tile.
2. Select Alerts.

## Configuring Reminders & Alert Preferences

You can configure how and when your ecobee3 generates reminders and alerts.

*Note: Only the options relevant to your equipment are shown in the thermostat menus.*

**On Thermostat and Mobile:**

1. Select Main Menu > Reminders & Alerts > Preferences
2. Configure each reminder/alert setting as required.

**On Web:**

1. Select Reminders & Alerts tile.
2. Select Preferences.
3. Configure each reminder/alert setting as required.

## HVAC Maintenance

The HVAC Service (maintenance) reminder generates an alert telling the homeowner that regularly scheduled maintenance is required.

This reminder, along with technician contact information, can be displayed on the screen. If homeowners register their thermostats, the reminders will be emailed to them and be displayed in the web portal.

You can set the Last Service date, turn the Reminder On or Off, and set the Frequency of the maintenance interval in months.

## Furnace Filter

Generates an alert that indicates it is time to clean or replace the filter on the furnace, if installed. You can set the Last Filter Change date, turn the Reminder On or Off, and set the Frequency of the maintenance interval.

## Ventilator Filter (if installed)

Generates an alert that indicates it is time to clean or replace the filter on the ventilator, if installed. You can set the Last Filter Change date, turn the Reminder On or Off, and set the Frequency of the maintenance interval.

## UV Lamp

If the HVAC system uses a UV lamp for air purification, your ecobee3 can generate an alert indicating that it is time to clean or replace the lamp. You can set the Last Lamp Change date, turn the Reminder On or Off, and set the Frequency of the maintenance interval.

## Low Temp Alert

Sets the temperature at which the thermostat will generate a Low Temperature Alert. The range can be:

- Enable/Disable: Configures if alert is shown on thermostat.
- A temperature range of 35 to 68 °F (1.5 to 20 °C).

## High Temp Alert

Sets the temperature at which the thermostat will generate a High Temperature Alert. The options are:

- Enable/Disable: Configures if alert is shown on thermostat.
- A temperature range of 60 to 104 °F (15.5 to 40 °C).

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## Aux Heat Runtime Alert

Sets the amount of time that the Auxiliary heat source, if installed, is can run continuously before an alert is generated. The options are:

- Disabled: No alert will be generated.
- A time from 30 min to 8 hrs

## Aux OutdoorTemp Alert

If you have a heat pump with an auxiliary heat configuration, you can configure your ecobee3 to generate an alert if the auxiliary heat is called for when the outdoor temperature exceeds this programmed set point. The programmed set point can be between 32 to 80 °F (0 to 26.5 °C)

*This feature requires an Internet connection to function properly.*

## Low Humidity Alert

Sets the percentage of relative indoor humidity at which the ecobee3 will generate a Low Humidity Alert. The options are:

- Off: No alert will be generated.
- A humidity range of 5% to 95%.

## High Humidity Alert

Sets the percentage of relative indoor humidity at which the ecobee3 will generate a High Humidity Alert. The options are:

- Off: No alert will be generated.
- A humidity range of 5% to 95%.

## Display Alerts on Thermostat

Select Disable if you do not want any of the alerts to be displayed on the ecobee3 thermostat screen. Alerts will continue to be displayed on the web portal and sent via email.

## Enable Heating/Cooling Alerts

Select Disable to disable alerts for heat/cool error conditions. If disabled, alerts indicating that the system failed to heat or cool will not appear in the screen, web portal, or emails.

## Lost Communication With Sensor/Low Battery Alerts

Select Disable to disable alerts when sensor battery is low or communication with the sensor is lost.

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## Customizing Your Thermostat

You can customize the operation and display of your ecobee3 to suit your personal preferences.

*Note: System settings are only configurable from the thermostat itself, not the Mobile App. Some settings, where indicated, are also configurable from the Web Portal.*

### Date & Time

You can configure the time to use a 12 or 24-hour format.

*Note: The current date and time are programmed during initial setup and automatically from the Internet. If you need to adjust the data and time, log in to your personalized web portal.*

#### On Thermostat:

To adjust the time format:

1. Select Main Menu > Settings > Date & time
2. Select Time format.
3. Touch 12 hr or 24 hr.

#### On Web:

1. Select Settings tile.
2. Select Time.
3. Select 12 Hour or 25 Hour.

### Temperature Display

You can configure the ecobee3 to display the temperature values in Fahrenheit or Celsius.

#### On Thermostat:

1. Select Main Menu > Settings > Preferences
2. Select Temperature display.
3. Touch °F or °C.

#### On Web:

1. Select Settings tile.
2. Select Preferences.
3. Select Temperature Display.
4. Select Fahrenheit or Celsius.

### Heating/Cooling Ranges

You can configure the ecobee3 to only display a specific heat and/or cool set point range. This prevents users from selecting values outside the displayed range.

#### On Thermostat:

1. Select Main Menu > Settings > Preferences
2. Select Heating range or Cooling range.
3. Adjust the allowed upper and lower values.
4. Touch Save.

#### On Web:

1. Select Settings tile.
2. Select Preferences.
3. Select Heat Set Point Range or Cool Set Point Range.
4. Set the allowed upper and lower values by sliding the values left or right.

### Thermostat Name

You can customize the name of your ecobee3 to suit your needs (i.e. Main Floor). This is useful if you have multiple systems or zones and are accessing your thermostat from your personalized web portal.

#### On Thermostat:

1. Select Main Menu > Settings > Preferences
2. Select Thermostat name.
3. Select an existing name from the list or choose Enter your own.
4. Touch Save.
5. If you choose your own name, enter the custom name and touch Save.

### Screen Brightness

You can customize the brightness of your ecobee3's screen. The brightness for both the active and standby screens can be configured independently. You can also configure the screen to automatically sleep (i.e. turn off) whenever your ecobee3 enters the Sleep activity period.

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For example, if your thermostat is located in a bedroom, you may want to blank the screen when you are sleeping, whereas if the thermostat is in a hallway, you may want the screen displayed all the time.

#### On Thermostat:

1. Select Main Menu > Settings > Preferences
2. Select Screen brightness.
3. Adjust the values of the Active and Standby screen brightness.
4. Select Screen sleeps when I sleep if you want to make the screen blank during the Sleep activity period.

### Active to Standby Screen Timer

You can configure how long it takes for the standby screen to activate after you have finished using the thermostat.

#### On Thermostat:

1. Select Main Menu > Settings > Preferences
2. Select Active to standby screen timer.
3. Adjust the activation time as required.

#### On Web:

1. Select Settings file.
2. Select Preferences.
3. Select Active to Standby Sleep Timer.
4. Select the length of time before the screen sleeps by sliding the values left or right.

### Hold Action Duration

You can configure how long a manual change to the set point will remain in effect.

#### On Thermostat:

1. Select Main Menu > Settings > Preferences
2. Select Hold action.
3. Select the hold action from the list:
  - 2 hours
  - 4 hours
  - Until the next scheduled activity

- Until you change it (default value)
- Decide at time of change

#### On Web:

1. Select Settings file.
2. Select Preferences.
3. Select Hold Action.
4. Select the hold action from the list:
  - 2 hours
  - 4 hours
  - Until the next scheduled activity
  - Until you change it (default value)
  - Decide at time of change

### Smart Recovery

Smart recovery lets your ecobee3 learn how your heating and cooling system works, taking into account weather and historical operating performance so that your home reaches the scheduled set point at the time in which the change occurs (i.e. not afterwards). For example, if you wake up at 6:00 AM, you do not need to schedule your Home period to start at 5:30 AM. Smart Recovery will start the HVAC equipment to ensure that at 6:00 AM, the house is at your desired temperature.

#### On Thermostat:

1. Select Main Menu > Settings > Preferences
2. Select Heating Smart Recovery or Cooling Smart Recovery.
3. Touch Enable or Disable.

#### On Web:

1. Select Settings file.
2. Select Preferences.
3. Select Smart Recover Heat Mode or Smart Recovery Cool Mode.
4. Select Enable or Disable.

### Access Control

You can prevent people from making changes your thermostat's schedule, vacation, or system settings by

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configuring a 4-digit security code. If enabled, the security code will be required to access and change these settings.

## On Thermostat:

To add a security code or change existing settings:

1. Select Main Menu > Settings > Access control
2. If the security code is currently disabled (default setting), touch Enable Security Code, enter a new code and touch Save.

Otherwise, enter the existing security code.

3. Select the feature(s) you want to protect:
  - Temperature & Quick Changes
  - Schedule
  - Vacation
  - System & Settings

To remove an existing security code:

1. Select Main Menu > Settings > Access control
2. Enter the existing security code.
3. Touch Change Security Code.
4. Delete the existing code and touch Save.

## On Web:

1. Select Settings tile.
2. Select Access Control.
3. If the security code is currently disabled (default setting), select Enable and enter a new code and touch Save.

Otherwise, enter the existing security code.

4. Select the feature(s) you want to protect:
  - Temperature & Quick Changes
  - Schedule
  - Vacation
  - System & Settings

## Configuring Wi-Fi Settings

Your ecobee3 supports Wi-Fi 802.11 b/g/n. Wi-Fi is normally configured during initial setup. You may, however, be required to reconfigure the settings if your Wi-Fi network settings change.

### On Thermostat:

Select Main Menu > Settings > Wi-Fi.

### Wi-Fi Radio

Select Enabled to use Wi-Fi. Your ecobee3 needs to connect to Internet for features like the Weather Forecast to work.

### Network

The list of available networks appears in the Network menu. If your network doesn't appear, you can enter the SSID manually by selecting My network is not visible.

After selecting or entering the SSID, you can configure the following parameters:

- **Connect to IP using:** Select DHCP to automatically connector, or select Static IP to type in your own values (if unsure, leave DHCP Enabled).
- **SSID Encryption:** ecobee3 supports WEP, WEP128, WPA, and WPA2 encryption schemes.
- **Password** (if encryption is used)
- **Channel:** Leave Any channel selected unless your network is configured to use a specific Wi-Fi channel.

### Advanced Settings

If you are using Static IP addressing, the following additional parameters will require configuration:

- **IP Address**
- **Gateway**
- **Subnet Mask**
- **Primary and Secondary DNS**

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If you need to specify your ecobee3's MAC address in your router's configuration, you can obtain it from Main Menu > About > Wi-Fi.

## Diagnostics

Your ecobee3 contains extensive diagnostic tools to help troubleshoot issues:

- **View Log:** Displays log file information about Wi-Fi operation.
- **Ping Gateway:** Checks to see if the network gateway is responding.
- **Ping ecobee.com:** Checks to see if the ecobee servers are responding.
- **Ping Address:** Checks to see if the entered IP address is responding.
- **Wi-Fi:** Displays the current Wi-Fi network settings.

### On Thermostat:

1. Select Main Menu > Settings > Wi-Fi.
2. Select Diagnostics.
3. Run the required diagnostic tool.

## Configuring HomeKit

Your ecobee3 supports HomeKit integration. The biggest benefit to our customers is the ability to use Siri from an iPhone, iPod or iPad. The ecobee3 mobile app provides the support to add this to a phone.

### On Mobile:

1. Select the Home Icon from the top right of the screen.
  2. Select the + icon, once again from the top right
  3. You can now add Homes, Zones and Rooms.
- **Creating Rooms:** When a HomeKit home is created, it has a default room. Create rooms to ensure that you can create logical groupings of accessories in the same

room. This way all the accessories can participate in the scene.

- **Creating Zones:** Create zones to ensure that you can create logical groupings of rooms that must participate in the same scene.
- **Deleting Zones & Rooms:** If you wish to delete zones or rooms, you can do so by first selecting the room or zone and then choosing to Edit.

## Using Siri

To use Siri, you must be on the same wi-fi network as your thermostat unless you have a HomeKit bridge. For official support please refer to the [Apple HomeKit support page](#).

To see a list of the most commonly used Siri commands please refer to the [ecobee3 FAQs](#).

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## Managing Your Account

Your ecobee3 is designed to securely communicate over the Internet with ecobee servers in order to obtain precise weather information and provide your own personalized ecobee web portal.

### Registering

To access all the features of your ecobee3, register your ecobee3 at ecobee.com. After registration, you can control your ecobee3 from your smartphone, tablet or desktop, and access free online energy management tools.

### Making Changes to Your Account

To make changes to your account, visit ecobee.com and log in to your personalized web portal. From there you will be able to make changes to your account, contact information and location. You will also be able to access additional features for your ecobee3 as well as online energy management tools.

### Moving to New House

If you're moving and want to take your ecobee3 with you, you'll need to re-connect it to the Internet and update your location and house information.

### Changing Thermostat Owner

If you're moving and are not taking your ecobee3 with you, log onto the Web Portal and select Reset under the Settings tab.

Select Reset Registration. This terminates the association between your ecobee3 thermostat and your personalized web portal. You can also accomplish the same thing by resetting the registration your thermostat (page 17).

You can always add another device for your new home with the same account.

The new homeowners will need to register the ecobee3 thermostat and set up their own web portal.

## Installation Settings

The ecobee3 automatically detects which wires are connected to it. However, you may need to still adjust equipment operating parameters.

*Note: Installation settings are only configurable from the thermostat itself, not the personalized web portal.*

### Equipment Wiring

The ecobee3 automatically detects which wires are connected and displays them on the screen.

#### On Thermostat:

Select Main Menu > Settings > Installation Settings > Equipment > Wiring.

### Equipment Settings

The Equipment settings let you configure the devices connected to the thermostat. Depending on your system's equipment, not all options may be available.

#### Heat Pump

This menu lets you configure a heat pump with up to 2 heat/2 cool stages and a 2 stage auxiliary heat source.

- **Type:** This setting helps the thermostat determine optimum performance and default settings. Select Geothermal if you are using a geothermal heat pump; otherwise select Air to Air.
- **O/B Reversing Value:** Select Energized on Cool to activate the reversing valve output (O/B terminal) when there is a call for cooling. Select Energized on Heat to activate the relay when there is call for heat.
- **Min Cycle off time:** Configures the minimum compressor off time between cycles (240 to 900 seconds).
- **Min outdoor temp:** Disables the compressor when the outside air temperature reaches the configured minimum setting. This performs two functions. It prevents the

# Section 9.0 – Appendix D – Building Automation

compressor from running when the outdoor temperature is too low, thus resulting in damage to the compressor.

You can also set this value to determine when you want the auxiliary heat (if installed) to engage to help meet the set temperature. The temperature range is adjustable from 0 to 65 °F (-17.8 to 18.3 °C) or can be completely disabled.

*Note: You need an Internet connection for this feature to operate properly.*

- **Aux Heat Simultaneous Operation:** If you select Enable and there is a source of auxiliary heat, it will turn on in addition to the heat pump. The heat pump will be engaged for the first 30 minutes. If, after 30 minutes, the set point has not been met, the auxiliary heat will also be engaged to assist the heat pump in reaching the set point.

If you select Disable, the heat pump will be engaged for up to 2 hours. If after 2 hours the set point has not been met, the thermostat will shutdown the heat pump and engage the auxiliary heat to reach the set point. This option should also be used for installation where the heat pump evaporator coil is downstream from the source of auxiliary heat.

This setting is only available when the Comp to Aux Temp Delta and Comp to Aux Runtime settings are both set to Auto (default).

#### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Equipment > Heat Pump.
2. Configure the settings as required.

#### Furnace

This menu lets you configure up to a 2-stage conventional heat source. If you have selected a heat pump as your primary source, this feature allows you to configure the 1st stage of auxiliary heat connected to the system.

- **Type:** Configured during initial setup (page 4), this optimizes the system for either a conventional furnace or a boiler.
- **Fan control in Heat mode:** Configures the furnace fan to be controlled by the ecobee3 or the HVAC system during heat cycles. Normally the HVAC system controls the fan during heat cycles.

#### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Equipment > Furnace.
2. Configure the settings as required.

#### Humidifier

This menu lets you configure a humidifier accessory.

- **Type:** Optimizes the humidifier operation for either Evaporative or Steam humidification.
- **Min Run Time Delta:** Reduces short cycling by running the humidifier beyond the set point by the selected amount (2% to 10%).
- **Window Efficiency:** The humidifier frost control setting uses this efficiency rating to compute the humidity set point within the range of 15% to 50%. Values are from 1 to 7, with 7 being for the most efficient windows possible.

#### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Equipment > Humidifier.
2. Configure the settings as required.

#### Dehumidifier

This menu lets you configure a dehumidifier accessory.

- **Dehumidify with fan:** Run dehumidifier when fan is running.
- **Min Run time delta:** Reduces short cycling by running the humidifier beyond the set point by the selected amount (2% to 10%).

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- **Dehumidify in heat mode:** Select Yes for the humidifier to only operate when there is a call for heat. If you want the humidifier to function at other times, select No.
- **Dehumidifier Active:** Select Open if the dehumidifier is active when the relay is open; otherwise select Closed.

#### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Equipment > Dehumidifier.
2. Configure the settings as required.

#### Ventilator

This menu lets you configure a ventilator accessory.

- **Free Cooling Max Outdoor Temp:** Prevents the free-cooling feature from running when the outdoor temperature is above the configured value.
- **Free Cooling Max Outdoor Humidity:** Prevents the free-cooling feature from running when the outdoor humidity is above the configured value. By default, this option is disabled. The Auto value determines the maximum humidity based on the temperature.
- **Indoor/Outdoor Temp Delta:** The temperature difference between the indoor and outdoor temperatures at which the ventilator will run.
- **Max Set Point Temp Delta:** The maximum allowed difference between the current temperature and set point for free cooling to function. By default, this option is disabled.

#### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Equipment > Ventilator.
2. Configure the settings as required.

#### Reconfiguring Equipment

Select Main Menu > Reconfigure equipment to run the initial setup process again.

*Note: Reconfiguring the equipment will delete any existing configuration.*

#### Thresholds

This menu lets you configure the temperature and time thresholds associated with the heating and cooling equipment.

You must configure the Equipment settings (page 25) before setting the thresholds. Only the applicable threshold settings will be displayed (i.e. if no air conditioner is configured, you will not see the options related to air conditioners).

#### Auto Heat/Cool

Enabling this option allows the user to select auto change-over as a system mode.

#### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Auto Heat/Cool.
2. Configure the settings as required.

#### Heat/Cool Min Delta

The minimum difference between the heat mode set temperature and the cool mode set temperature when the system mode is in auto change-over. The delta is adjustable from 2 to 10 °F (1.1 to 5.5 °C). The default value is 5 °F (2.8 °C).

#### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Heat/Cool Min delta.
2. Configure the settings as required.

#### Compressor Min Cycle Off Time

This enforces a minimum time that the compressor must be off between cycles. This ensures the compressor does not short cycle (which could negatively affect the operating life of the system). This time is adjustable from 240–900 seconds.

#### On Thermostat:

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1. Select Main Menu > Settings > Installation Settings > Thresholds > Compress Min Cycle Off Time.
2. Configure the settings as required.

## Compressor Min Outdoor Temp

Enforces a minimum outside air temperature at which the compressor will be disabled. It prevents the compressor from running when the outdoor temperature is too low, thus resulting in damage to the compressor. If the compressor min outdoor temp is being enforced, auxiliary heat will be used to reach set-point. The temperature range is adjustable from 0 to 65 °F (-17.8 to 18.3 °C) or can be completely disabled. This feature is typically used for air-to-air source heat pumps (35 °F min outdoor temp by default) and is disabled (by default) for geothermal heat pumps.

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Compressor Min Outdoor Temp.
2. Configure the settings as required.

*Note: You need an Internet connection for this feature to operate properly.*

## AC Overcool Max

Uses the air conditioning to reduce the humidity by cooling beyond the current set point by the configured amount. Note that cooling is still determined by the set point, and the system will not resume cooling until the temperature rises above the current set point. For example, if your cooling set point is 75 F, and this value is set to 2 F, it will allow the AC to overcool to 73 F if the humidity set point has not been met.

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > AC Overcool Max.
2. Configure the settings as required.

## Aux Heat Max Temp

Configures the maximum outdoor temperature above which the auxiliary heat will not be engaged. The temperature is adjustable from 0 to 80 °F (26.5 °C) in increments of 0.5°F (0.3°C). The default value is 70°F (21°C).

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Heat Differential Temp.
2. Configure the settings as required.

## Heat Differential Temp

The minimum difference between the current temperature and set temperature before the system calls for heat. A smaller difference means shorter cycle times, whereas a larger difference results in longer cycle times. The temperature range is adjustable from 0 to 3 °F (0 to 1.7 °C) in 0.5°F (0.3°C) increments.

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Heat Differential Temp.
2. Configure the settings as required.

## Heat Dissipation Time

The amount of time the fan will run after the heat set point has been reached and the call for heat has been turned off. Running the fan for a period of time allows for any heated air left in the ducts to circulate throughout the home. The time is adjustable from 0 to 900 seconds. The default value is 30 seconds.

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Heat Dissipation Time.
2. Configure the settings as required.

## Heat Min On Time

Sets the minimum equipment run time in heat mode: 1 to 20 min (default is 5 min).

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## On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Heat Min On Time.
2. Configure the settings as required.

## Cool Differential Temp

The minimum difference between the current temperature and set temperature before the system calls for cool. A smaller difference means shorter cycle times, whereas a larger difference results in longer cycle times. The temperature range is adjustable from 0 to 3 °F (0 to 1.7 °C) in 0.5°F (0.3°C) increments.

## On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Cool Differential Time.
2. Configure the settings as required.

## Cool Dissipation Time

The amount of time the fan will run after the cool has been turned off. Running the fan for a period of time allows for any cooled air left in the ducts to circulate throughout the home. The time is adjustable from 0 to 900 seconds. The default value is 30 seconds.

## On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Cool Dissipation Time.
2. Configure the settings as required.

## Cool Min On Time

Sets the minimum equipment run time in cool mode: 1 to 20 min (default is 5 min).

## On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Cool Min On Time.
2. Configure the settings as required.

## Compressor Reverse Staging

If enabled, the thermostat will cycle down from the higher stages so that as it approaches set point it will only be running in stage 1. The thermostat calculates which stage to start the HVAC equipment in depending on the indoor and set point temperature delta. As the stage 1 temperature delta is exceeded, the second stage will engage. Once the equipment has brought the current temperature back to within the heat or cool differential setting, stage 2 will disengage and stage 1 will remain running until the set point is reached.

## On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Compressor Reverse Staging.
2. Configure the settings as required.

## Compressor Stage 2 Temp Delta

The minimum difference between the current temperature and the set temperature that will activate the auxiliary heat (regardless if the maximum run time of the previous stage was reached). Options are Auto (default) and 1 to 10 °F (0.6 to 5.6 °C).

## On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Compressor Stage 2 Temp Delta.
2. Configure the settings as required.

## Compressor Stage 1 Max Runtime

The maximum amount of time stage 1 will run before engaging the next stage. Options are Auto (default) and 10 to 120 minutes.

## On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Compressor Stage 1 Max Runtime.
2. Configure the settings as required.

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## Compressor to Aux Temp Delta

The minimum difference between the current temperature and the set temperature that will activate this stage (regardless if the maximum run time of the previous stage was reached). Options are Auto (default), Disabled, and 1 to 10 °F (0.6 to 5.6 °C).

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Compressor To Aux Temp Delta.
2. Configure the settings as required.

## Compressor to Aux Runtime

The maximum amount of time this stage will run before engaging the next stage. Options are Auto (default) and 1 to 10 °F (0.6 to 5.6 °C).

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Compressor To Aux Runtime.
2. Configure the settings as required.

## Temperature Correction

Lets you program an offset between the real temperature at thermostat and the displayed temperature. If you find that the temperature where the thermostat are located does not represent the room temperature, change the offset to compensate for the difference. The correct temperature is adjustable from +/- 10°F in 0.5°F (0.3°C) increments.

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Temperature Correction.
2. Swipe left or right to select the value.

## Installer Code

To prevent accidental modifications to the installation settings, you can enable a 4-digit installer code. This code is pre-programmed to 3262.

### On Thermostat:

1. Select Main Menu > Settings > Installation Settings > Thresholds > Installer Code.
2. Enable or disable the code.

## Test Equipment

This menu lets you test the wiring and connections of the devices connected to the thermostat by turning them on or off.

The equipment will turn off when you exit the menu.

*Warning: Compressor protection and minimum run-time features are not enforced while in this mode.*

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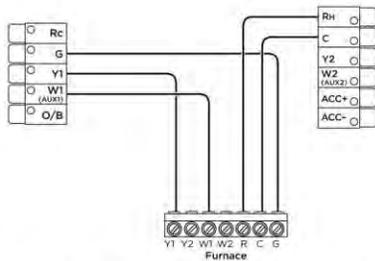
## Wiring Diagrams

The following pages provide wiring diagrams for common HVAC equipment configurations.

Need help with your ecobee3 wiring? Find how-to videos and tutorials on [ecobee.com](http://ecobee.com).

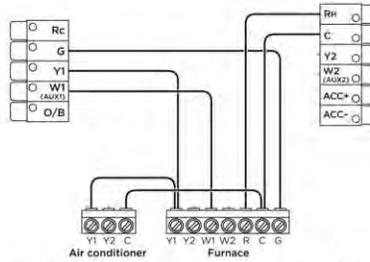
### Conventional heating and cooling

#### Heat Only



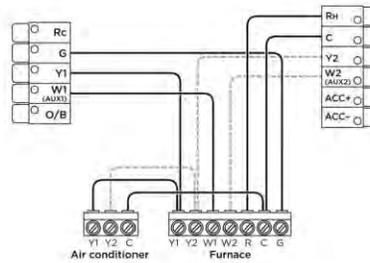
**Note:** Do not jumper Rc or Rh, ecobee3 does this automatically. R can go into either Rc or Rh terminals on your ecobee3.

#### Heat and Cool



**Note:** Do not jumper Rc or Rh, ecobee3 does this automatically. R can go into either Rc or Rh terminals on your ecobee3.

#### Heat and Cool (2 Stage Heat)



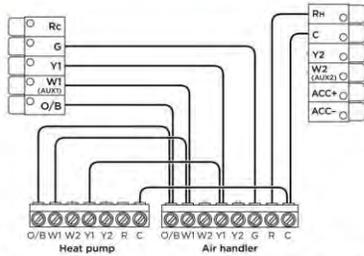
Stage 2 heat and cool

**Note:** Do not jumper Rc or Rh, ecobee3 does this automatically. R can go into either Rc or Rh terminals on your ecobee3.

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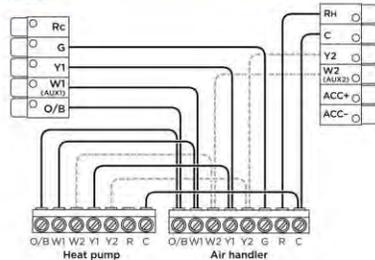
## Heat pumps

### Air or Geothermal Heat Pump with Auxiliary Heat



**Note:** Do not jumper Rc or Rh, ecobee3 does this automatically. R can go into either Rc or Rh terminals on your ecobee3.

### Air or Geothermal Heat Pump (2 Stages) with Auxiliary Heat

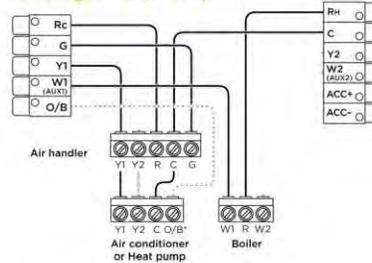


Stage 2 compressor and auxiliary heat

**Note:** Do not jumper Rc or Rh, ecobee3 does this automatically. R can go into either Rc or Rh terminals on your ecobee3.

## Boiler or radiant systems

### Boiler or Radiant System with Air Handler and Conventional Cooling or Heat Pump

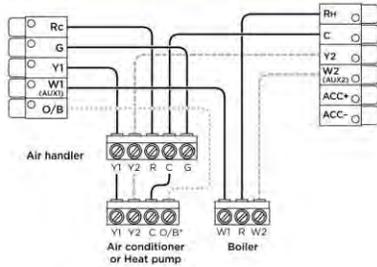


\*Reversing valve for heat pumps only

**Note:** Do not jumper Rc or Rh, ecobee3 does this automatically. R can go into either Rc or Rh terminals on your ecobee3.

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## Boiler or Radiant System (2 stages) with Air Handler and Conventional Cooling or Heat Pump



Stage 2 heat and cool:  
if applicable  
\*Reversing valve for heat pumps only

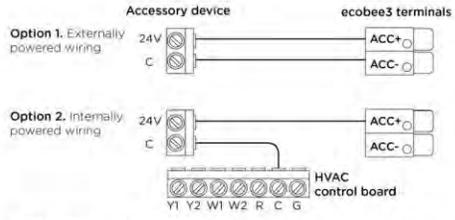
**Note:** Do not jumper Rc or Rh, ecobee3 does this automatically. R can go into either Rc or Rh terminals on your ecobee3.

### Accessory devices

The ecobee3 can control an accessory HVAC device like a humidifier, dehumidifier, or ventilation device from its ACC terminals.

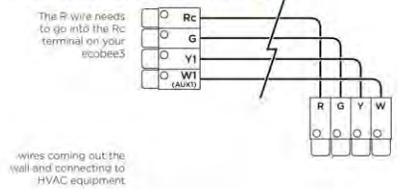
If the accessory is internally powered, connect the 24V to ACC+. Also connect the common for the accessory to common on the control board.

*Hint:* If you have 2 wires at the thermostat from the accessory, your accessory is externally powered. If you have only 1 wire then it is internally powered.



**Note:** You will need to configure the accessory device when you first power on your ecobee3.

### PEK thermostat wiring



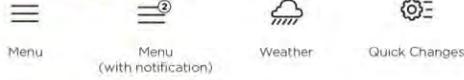
wires coming out the wall and connecting to HVAC equipment

# Section 9.0 – Appendix D – Building Automation

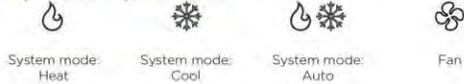
## Icon Reference

Note: Depending on your equipment configuration, not all the icons may be available.

### Home Screen



### System Operation



### Menus



### Comfort Settings



## Weather



## Wi-Fi Connectivity



## Menu Reference

Note: Depending on your equipment configuration, not all menu options may be available.

- Main Menu
  - Registration
  - System
    - HVAC System
    - Fan
    - Humidifier
    - Dehumidifier
    - Ventilator/HRV/ERV
  - Sensors
    - Smart Home/Away
    - Follow Me
    - Your Thermostat
  - Schedule
  - Comfort Settings
    - Home
    - Away
    - Sleep
  - Vacation
  - Reminders & Alerts
    - Reminders
    - Alerts
    - Preferences
    - HVAC Maintenance

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Air Handler	Aux Heat Simultaneous Operation
Humidifier Filter	Furnace
Dehumidifier Filter	Fan control in Heat mode
Furnace Filter	Ventilator
Ventilator Filter	Free Cooling Max Outdoor Temp
UV Lamp	Free Cooling Max Outdoor Humidity
Low Temp Alert	Indoor/Outdoor Temp Delta
High Temp Alert	Max Set Point Temp Delta
Aux Heat Runtime Alert	Air Conditioner
Aux Outdoor Temp Alert	Dehumidifier
Low Humidity Alert	Dehumidify with fan
High Humidity Alert	Min Run time delta
Display Alerts on Thermostat	Dehumidify in heat mode
Enable Heating/Cooling Alerts	Dehumidifier Active
Settings	Reconfigure equipment
Date & Time	Thresholds
Time Format	Auto Heat/Cool
Date	Heat/Cool Min delta
Time	Compressor Min Cycle Off Time
Time Zone	Compressor Min Outdoor Temp
Preferences	AC Overcool Max
Temperature display	Aux Heat Max Outdoor Temp
Heating range	Heat Differential Temp
Cooling range	Heat Dissipation Time
Thermostat name	Heat Min On Time
Screen brightness	Cool Differential Temp
Active to standby	Cool Dissipation Time
Hold action	Cool Min On Time
Heating Smart Recovery	Compressor Reverse Staging
Cooling Smart Recovery	Compressor Stage 2 Temp Delta
Wi-Fi	Compress Stage 1 Max Runtime
Wi-Fi Radio	Temperature Correction
Network	Installer Code
Diagnostics	Test equipment
Installation Settings	Access Control
Equipment	Reset
Wiring	Reset Preferences
Heat Pump	Reset All
Type	About
O/B Reversing Value	Support
Min Cycle off time	Wi-Fi
Min outdoor temp	Weather

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Quick Changes

## Approvals

This product was designed and built in accordance to RoHS directive 2002/95/EC and contains no hazardous substances as defined by this directive.

## FCC Compliance Statement

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a different circuit from the receiver.
- Consult the dealer or an experienced radio/TV contractor for help.

To satisfy FCC/IC RF exposure safety requirements, a separation distance of 8 inches (20 cm) or more should be maintained between this device and persons. To ensure compliance, operation at closer than this distance is not allowed.

FCC ID: WR9EBSTATZBE3 IC: 7981A-EBSTATZBE3

Warning: Changes or modifications not expressly approved by ecabee Inc. could void the user's authority to operate the equipment.

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## 3-Year Limited Warranty

ecobee warrants that for a period of three (3) years from the date of purchase by the consumer ("Customer"), the ecobee3 thermostat (the "Product") shall be free of defects in materials and workmanship under normal use and service. During the warranty period, ecobee shall, at its option, repair or replace any defective Products, at no charge. Any replacement and/or repaired device are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer.

If the product is defective, call Customer Service at 1-877-932-6233. ecobee will make the determination whether a replacement product can be sent to you or whether the product should be returned to the following address: ecobee Customer Service, 250 University Ave, Suite 400 Toronto, Ontario M5H 3E5, Canada. In the event of a failure of a Product, Customer may:

(a) if Customer did not purchase the Product directly from ecobee, contact the third party contractor from whom the Product was purchased to obtain an equivalent replacement product, provided the contractor determines that the returned Product is defective and Customer is otherwise eligible to receive a replacement product;

(b) contact ecobee directly for service assistance at 1-877-932-6233 and ecobee will make the determination whether an advance equivalent replacement Product can be sent to Customer with return shipping supplies (in which case a hold shall be put on Customer's credit card for the value of the replacement Product until ecobee has received the defective Product). Product should be returned to the following address: ecobee Customer Service, 250 University Ave, Suite 400 Toronto, Ontario M5H 3E5, Canada. If the returned Product is found by ecobee to be defective and Customer is otherwise eligible to receive a replacement product, no amount shall be charged to Customer's credit card; or

(c) ship the defective Product directly to ecobee, in which case Customer shall contact ecobee directly at 1-877-932-6233, so ecobee can make the required shipping arrangements. Upon receipt of the defective Product, ecobee will ship an equivalent replacement product to Customer, provided the returned Product is found by ecobee to be defective and Customer is otherwise eligible to receive a replacement product.

This warranty does not cover removal or reinstallation costs and shall not apply if the damages were found to be caused by something other than defects in materials or workmanship, including without limitation, if the Product:

- was operated/stored in abnormal use or maintenance conditions; is repaired, modified or altered, unless ecobee expressly
- authorizes such repair, modification or alteration in writing;
- was subject to abuse, neglect, electrical fault, improper handling, accident or acts of nature;
- was not installed by a licensed Heating Ventilating and Air Conditioning (HVAC) contractor; or
- was installed improperly.

ecobee's sole responsibility shall be to repair or replace the Product within the terms stated above. ECOBEE SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some US states and Canadian provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

ecobee's responsibility for malfunctions and defects in materials and workmanship is limited to repair and replacement as set forth in this warranty statement. All express and implied warranties for the product, including but not limited to any

# Section 9.0 – Appendix D – Building Automation

Implied warranties and conditions of merchantability and fitness for a particular purpose, are limited to the three-year duration of this limited warranty. No warranties, whether express or implied, will apply after the limited warranty period has expired. Some

US states and Canadian provinces do not allow limitations on how long an implied warranty lasts, so this limitation may not apply.

ecobee neither assumes responsibility for nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

This warranty gives you specific rights, and you may also have other rights which vary from jurisdiction to jurisdiction. If you have any questions regarding this warranty, please write ecobee Customer Service, 250 University Ave, Suite 400 Toronto, Ontario M5H 3E5, Canada.

## End User Software License Agreement

Please read the following carefully, as this end user software license agreement ("EULA") is a legal agreement between ecobee Inc., having its place of business at 250 University Ave, Suite 400 Toronto, Ontario M5H 3E5, Canada, ("ecobee") and you (either an individual or the entity that you represent and referred to in this agreement as "licensee"), The original purchaser of ecobee product (The "product" or "products") embedded with ecobee proprietary software (the "software") concerning licensee's limited access to and use of the software. By using the product (including the software embedded in the product), you are indicating your acceptance of, and you agree to be bound by the terms and conditions of this EULA which shall govern your access and use of the software. If you do not agree with the terms and conditions of this EULA, your

access to and use of the software will not be permitted and you may, within fourteen days of the date of your purchase if the ecobee product, return the software together with the product in its original packaging and sale condition to: (a) ecobee if you have purchased the ecobee product directly from ecobee or; (b) to an ecobee authorized reseller or distributor if you have purchased the ecobee product from such entities, and ecobee or its authorized reseller or distributor as applicable shall provide a full refund of the purchase price paid within fourteen days of its receipt of the return.

In consideration of the license fees paid by LICENSEE as part of the purchase price of the ecobee Product and the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ecobee and LICENSEE agree as follows:

1. Definitions: For the purpose of this EULA, the following terms shall have the meanings hereinafter provided:

"ecobee Web Portal" means the web site portal operated by ecobee to provide certain services and functionality to registered users of ecobee Products.

"Error" means any program defect, error, bug or other failure of all or part of the Software that results in the Software not conforming to, or performing in accordance with, its published specifications.

"Software" means ecobee's computer software program, which enables data upload and download to and from the ecobee Web Portal using an ecobee Product, including any Software Updates.

"User Manual" means the ecobee User Manual provided together with the Product and Software.

"Software Updates" means updates or patches to the Software, including updates intended to correct Errors and which may include enhancements and/or additional features to the Software, as may be provided or released by ecobee from time to time to all of its customers at no charge.

# Section 9.0 – Appendix D – Building Automation

2. Ownership of Software: LICENSEE acknowledges and agrees that, save and except for the Software license explicitly granted by the EULA, all right, title and interest

in and to the Software and the User Manual is the sole and exclusive property of ecobee and/or its licensors), as the case may be. ecobee reserves all rights not expressly granted to LICENSEE hereunder, and for greater certainty, ecobee shall retain all intellectual property and other proprietary rights in and to the Software and the User Manual. Nothing in this EULA shall, or shall be deemed or construed to, assign, transfer or convey to LICENSEE any title, rights or interest in or to any intellectual property, including in or to the Software or User Manual, other than the licenses specifically and expressly granted herein.

3. Grant of Limited License: Upon LICENSEE's use of the Product (and corresponding acceptance of the terms and conditions of this EULA), ecobee hereby grants to LICENSEE a limited, non-exclusive, personal, perpetual, non-transferable and revocable license to use the Software embedded in the Product as and to the extent described in this EULA for as long as LICENSEE complies with the terms and condition of this EULA. ecobee reserves all rights not expressly granted to LICENSEE. For certainty, this EULA does not apply to or govern LICENSEE's use of or access to the ecobee Web Portal or the ecobee Product, which are each governed by and subject to separate terms and conditions.

4. Permitted Use: Pursuant to the Software license granted to LICENSEE under this EULA, LICENSEE shall be permitted to: (a) use the Software embedded in the Product for

the purposes of using the Product only as intended and contemplated by the User Manual, provided that the Software may only be used for its personal and private use in connection with the use of the Product; and (b) use the User Manual provided by ecobee solely as is necessary to operate and use the Software and ecobee Product as and to the extent permitted thereunder and under this EULA.

5. License Transferable: This EULA shall be binding upon and shall ensure to the benefit of and be enforceable by each of the parties, their respective successors and permitted assigns. LICENSEE may assign this EULA without the prior consent of ecobee. ecobee may assign this EULA without the consent of LICENSEE at any time.

6. Copy Restrictions: Unauthorized copying or distribution of Software or the User Manual is expressly prohibited. LICENSEE may make a reasonable number of copies of the User Manual to the extent reasonably required for its use of the Software and Product as permitted by this EULA; provided that LICENSEE may not use the User Manual separately from the Product or Software or for any purpose other than as contemplated herein.

7. Use Restrictions: LICENSEE may not: (a) modify, adapt or otherwise change the Software or in any way remove the Software from the Product for any reason or

use the Software separately from the Product for any reason or purpose; (b) to the maximum extent permitted to be restricted by applicable law, reverse engineer, decompile, disassemble, or otherwise in any manner deconstruct all or any part of the Software; (c) create derivative works based on the Software or the User Manual; (d) except as expressly permitted by the EULA, provide, disclose, sublicense, distribute, transfer, assign or otherwise permit any third party to access, use, read or otherwise gain access to the Software or User Manual (the Software and User Manual being the confidential information of ecobee); or (e) use Software to access or in conjunction with any other thermostat monitoring services or products of any ecobee competitor.

8. Support: ecobee may in its discretion, without any obligation to do so and subject to the limitations of this EULA, provide LICENSEE with help-desk telephone support concerning LICENSEE's use of the SOFTWARE to the extent provided for in the Product Terms of Sale in connection with purchase and sale of the Product and the Terms of Service entered into by you and ecobee, if any, in connection with the thermostat monitoring and data management services provided by

# Section 9.0 – Appendix D – Building Automation

ecobee in connection with the Product. Refer to the Product Terms of Sale and/or the Terms of Service associated with the Product and related services for further details on Software and Product support.

9. Relief: LICENSEE agrees that damages would not be an adequate remedy for any breach of this EULA affecting or related to a breach or misappropriation of ecobee's (or its or its third party licensors') intellectual property rights in and to the Software and User Manual. LICENSEE, and nothing in this EULA, shall interfere with, delay, obstruct, or prevent ecobee from taking, or require ecobee to take, any steps prior to taking action to seek an interim and interlocutory equitable remedy on notice or ex parte to enforce any provision herein to protect its rights concerning the Software or other intellectual or proprietary rights. LICENSEE agrees not to contest, object to, or otherwise oppose an application for equitable relief by ecobee in such circumstances and LICENSEE waives any and all immunities from any equitable relief to which it may be entitled. Any such relief or remedy shall not be exclusive, but shall be in addition to all other available legal or equitable remedies. LICENSEE agrees that the provisions of this Section are fair and reasonable and are necessary to protect ecobee's intellectual property rights.

10. Termination: This EULA is effective until and unless terminated. Subject to Section 13, this EULA will terminate automatically if LICENSEE fails to comply with any provision of the License. If LICENSEE is a business entity or other entity, any failure to comply with the terms and condition of this EULA by any individual employed or engaged by such entity will be deemed a failure to comply by LICENSEE. Upon any termination, LICENSEE shall destroy all copies of Software and User Manual.

11. Warranty: (a) ecobee shall provide its standard Product and Software limited warranty statement ("Customer Warranty"), which equally applies to the Software embedded in the Product, and which is incorporated by reference herein, with the Product for your benefit only. In the event of an Error in

connection with the Software, refer to the Customer Warranty and Terms

of Sale provided with the Product for further detail. (b) EXCEPT FOR THE REPRESENTATIONS, WARRANTIES, AND COVENANTS EXPRESSLY CONTAINED

IN THIS EULA, THE PRODUCT TERMS OF SALE AND THE PRODUCT WARRANTY, THE SOFTWARE AND SOFTWARE DOCUMENTATION AND ANY SUPPORT IS PROVIDED ON AN "AS IS" BASIS, AND THERE ARE NO OTHER REPRESENTATIONS, WARRANTIES, COVENANTS, OR CONDITIONS, EXPRESS OR IMPLIED (INCLUDING ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THOSE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM A COURSE OF DEALING OR USAGE OF TRADE), INCLUDING, BUT NOT LIMITED TO, NON-INFRINGEMENT, CORRECTNESS, FUNCTIONALITY, RELIABILITY, ACCURACY, CURRENTNESS, OPERATION, USE

OR THE RESULTS OF THE USE BY LICENSEE, THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE (OR THAT ALL ERRORS CAN OR WILL BE CORRECTED) OR THAT THE SOFTWARE OR SOFTWARE DOCUMENTATION WILL MEET LICENSEE'S REQUIREMENTS, ALL OF WHICH ARE EXPRESSLY DENIED AND DISCLAIMED TO THE MAXIMUM EXTENT PERMITTED BY LAW. SOME JURISDICTIONS DO NOT PERMIT LIMITATIONS ON OR EXCLUSIONS OF CERTAIN IMPLIED WARRANTIES, OR THE EXCLUSION OR LIMITATION OF CERTAIN

DAMAGES; THEREFORE THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU IN CERTAIN CIRCUMSTANCES. ecobee DISCLAIMS AND SHALL HAVE NO LIABILITY TO LICENSEE FOR ANY AND ALL ACTS OF THIRD PARTIES. NO OTHER PERSON IS AUTHORIZED TO EXTEND, VARY OR TRANSFER ANY PROVIDED WARRANTY ON BEHALF OF ecobee. THE ENTIRE RISK AS TO THE RESULTS AND PERFORMANCE AND USE OF THE SOFTWARE, SOFTWARE DOCUMENTATION AND ANY PROVIDED SUPPORT IS ASSUMED BY LICENSEE.

12. Limitation: IN NO EVENT AND TO THE MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW SHALL ECOBEE, ITS SHAREHOLDERS, AFFILIATES, CONTRACTORS, SUPPLIERS AND AGENTS

# Section 9.0 – Appendix D – Building Automation

AND THEIR RESPECTIVE DIRECTORS, OFFICERS AND EMPLOYEES (COLLECTIVELY THE "ECOBEE PARTIES") BE LIABLE TO LICENSEE OR ANY THIRD PARTY FOR ANY INDIRECT, INCIDENTAL, EXEMPLARY, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES (INCLUDING WITH RESPECT TO LOSS OF, OR DAMAGE TO, DATA OR COMPUTER SYSTEMS OR RELIANCE ON ANY DATA DERIVED FROM LICENSEE'S USE OF THE SOFTWARE, OR LOSS OF REVENUE OR PROFIT OR OTHER ECONOMIC LOSS) OF ANY KIND OR NATURE WHATSOEVER SUFFERED BY LICENSEE OR ANY THIRD PARTY HOWSOEVER CAUSED AND WHETHER RESULTING FROM THE USE OF OR INABILITY TO USE THE SOFTWARE OR OTHERWISE (INCLUDING

AS A RESULT OF OR DUE TO USE OF OR RELIANCE ON THE SOFTWARE AND/OR ecobee WEB PORTAL) AND REGARDLESS OF THE FORM OR CAUSE OF ACTION, EVEN IF SUCH DAMAGES ARE FORESEEABLE OR ecobee HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. ECOBEE PARTIES' TOTAL LIABILITY

AND OBLIGATION TO LICENSEE, IN THE AGGREGATE FOR ANY AND ALL CLAIMS ARISING OUT OF OR IN ANY CONNECTION WITH THIS EULA, THE TERMS OF SALE IN CONNECTION WITH YOUR PURCHASE OF THE PRODUCT AND YOUR USE OF

THE SOFTWARE AND PRODUCT, WITH RESPECT TO ANY EXPENSE, DAMAGE, LOSS, INJURY, OR LIABILITY OF ANY KIND, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LIABILITY (INCLUDING FOR BREACH OF CONTRACT, TORT, NEGLIGENCE, BY STATUTE OR OTHERWISE) SHALL BE LIMITED TO THE ACTUAL DIRECT DAMAGES SUFFERED AND SHALL NOT EXCEED AN AMOUNT THAT IS EQUIVALENT TO THE PURCHASE PRICE OF THE ecobee PRODUCT ACTUALLY PAID BY LICENSEE. THIS SECTION SHALL SURVIVE A FUNDAMENTAL BREACH OR BREACHES AND/OR FAILURE OF THE ESSENTIAL PURPOSE OF THE AGREEMENT.

13. Survival: The parties acknowledge and agree that the provisions of Sections 2, 6, 7, 9, 11(b), 12, 13, 14, 15, 16 and 17 shall survive any termination of this EULA for any reason.

14. English Language: The parties declare that they have required that this agreement and all documents related hereto,

either present or future, be drawn up in the English language only. Les parties déclarent par les présentes qu'elles exigent que cette entente et tous les documents y afférents, soit pour le présent ou le futur, soient rédigés en langue anglaise seulement.

15. Jurisdiction: This EULA shall be exclusively governed by, construed and interpreted in accordance with the laws of the Province of Ontario, Canada. For the purpose of all legal proceedings this EULA shall be deemed to have been performed in the Province of Ontario, Canada and the parties expressly confirm that the law of the Province of Ontario is the proper law. If Customer is located in a jurisdiction other than Canada, the parties agree that neither the United Nations Convention of the International Sale of Goods or the (U.S.) Uniform Computer Information Transactions Act shall apply to this EULA. The parties irrevocably attorn to the non-exclusive jurisdiction of the Courts of the Province of Ontario in respect of all matters and disputes arising hereunder.

16. Export Law Assurances: LICENSEE acknowledges that the Software may be subject to export and import control laws, and agrees to comply fully with those laws in connection with the Software.

17. General Provisions: No delay or omission by ecobee to exercise any right or power it has under this EULA or to object to the failure of any covenant of LICENSEE to be performed in a timely and complete manner, shall impair any such right or power or be construed as a waiver of any succeeding breach or any other covenant. Any waivers by ecobee must be in writing and signed by an authorized representative of ecobee. If any provision of this EULA is held by a court of competent jurisdiction to be invalid or unenforceable in any respect, then the remaining provisions of this EULA, or the application of such provisions to persons or circumstances other than those as to which it is invalid or unenforceable shall not be affected thereby, and each such provision of this EULA shall be valid and enforceable to the extent granted by law. The EULA constitutes the entire agreement between the parties as it relates to the

# Section 9.0 – Appendix D – Building Automation

license and use of the Software and User Manual and the subject matter of this EULA and supersedes all prior or contemporaneous agreements, negotiations, representations and proposals, written or oral between ecobee and LICENSEE. The EULA may only be amended or supplemented by written agreement executed by each of the parties.

# Section 10.0 – Appendix E – Data Management

The Fusebox Team will partner with Midstate Energy to deliver utility data management services to the City of Sedona leveraging the Fusebox software platform. The following components are detailed below.

## Dedicated Project Team

City of Sedona has been assigned the following EnergyProject Team.

- Dr. Auriane Koster – Sustainability Manager
- Zack Kushlan – Client Data Manager

The City of Sedona project team will work directly with city staff and provide the following services:

- Compile two year historical and monthly ongoing utility bill data
- Build utility bill data directly into the Fusebox software platform
- Provide consistent reporting of utility data metrics back to city staff
- Building energy assessments of city facilities
- Present addition strategies to reduce utility costs, outside of efficiency measures included in the Midstate Energy project
- Ongoing education/training sessions with city staff on energy and sustainability

## Fusebox

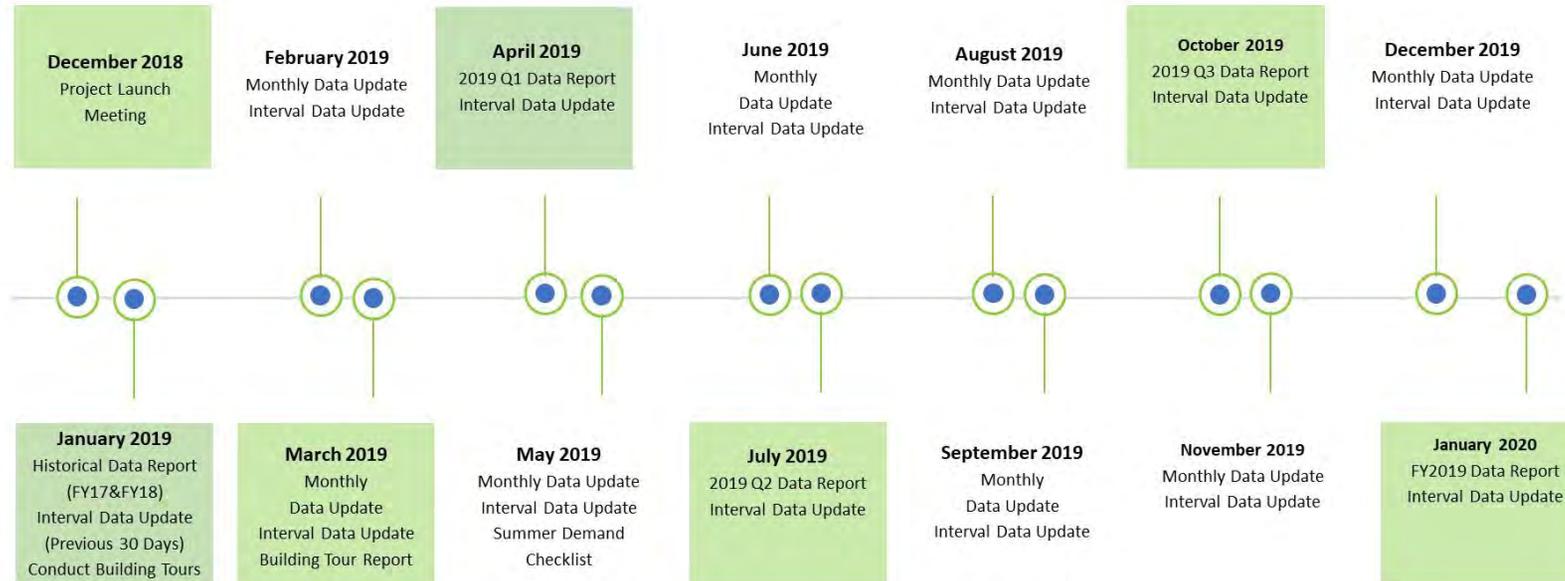
City of Sedona staff will be provided access to Fusebox, our proprietary utility management software. The Fusebox platform will provide city staff visibility into monthly utility data, 15-minute APS interval data, reporting, and our “green team” engagement module (allowing stakeholders through the city to collaborate on conservation initiatives). The dedicated project team will be responsible for compiling and uploading utility data in Fusebox.

## Utility Data Management

It is the responsibility of the dedicated project team to gather all necessary utility data. The preferred method is access to online accounts (if online accounts are not available, your project team will work with city staff on other methods for obtaining utility data information). Your team will compile, analyze, and prepare a historical data report. This process will begin as soon as the energy project is underway. A City of Sedona Deliverable Roadmap (sample attached) will be created by the dedicated project team and reviewed with city staff monthly.

# Section 10.0 – Appendix E – Data Management

## City of Sedona Deliverable Roadmap



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## ARIZONA FIXED EQUIPMENT LEASE

Long Name of Entity: City of Sedona  
Address: 102 Roadrunner Drive  
City, State Zip: Sedona, AZ 86336  
Attention: Cherie Wright  
Public Finance Office: Financial Services Director  
County: Yavapai  
Amount: 373,498.00  
Rate: 3.60  
Maturity Date: November 15, 2030  
First Pmt Date: November 15, 2019  
Payment Dates: November 15  
Auto Extend: 11  
Governing Body: Sedona City Council  
Resolution Date: October \_\_, 2018  
Dated Date: November, 2018  
Day: 28th  
State: Arizona

**\$373,498.00**  
**City of Sedona**  
**Lease Purchase Agreement**

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1. Lease/Purchases Agreement of the City of Sedona
2. Exhibit A. Calculation of Interest Component
3. Exhibit B. Description of Leased Property
4. Exhibit C. Resolution of Governing Body
5. Exhibit D. Opinion of Lessee's Counsel
6. Exhibit E. Security Documents
7. Exhibit F. Delivery and Acceptance Certificate
8. Exhibit G – Escrow Agreement
9. Form 8038-G
10. Wire Transfer Request

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LEASE/PURCHASE AGREEMENT

Dated as of November 28, 2018

by and between

**ZIONS BANCORPORATION, N.A.,**  
as Lessor

and

**CITY OF SEDONA,**  
as Lessee

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## LEASE/PURCHASE AGREEMENT

THIS LEASE/PURCHASE AGREEMENT, dated as of November 28, 2018, by and between ZIONS BANCORPORATION, N.A., a national banking association duly organized and existing under the laws of the United States of America, as lessor (the “Bank”), and City of Sedona (the “Lessee”), a public agency of the State of Arizona (the “State”), duly organized and existing under the Constitution and laws of the State, as lessee;

### WITNESSETH:

WHEREAS, the Lessee desires to finance the acquisition of the equipment and/or other personal property described as the “Leased Property” in Exhibit B (the “Leased Property”) by entering into this Lease/Purchase Agreement with the Bank (the “Lease”); and

WHEREAS, the Bank agrees to lease the Leased Property to the Lessee upon the terms and conditions set forth in this Lease, with rental to be paid by the Lessee equal to the Lease Payments hereunder; and

WHEREAS, it is the intent of the parties that the original term of this Lease, and any subsequent renewal terms, shall not exceed 12 months, and that the payment obligation of the Lessee shall not constitute a general obligation under State law; and

WHEREAS, all acts, conditions and things required by law to exist, to have happened and to have been performed precedent to and in connection with the execution and delivery of this Lease do exist, have happened and have been performed in regular and due time, form and manner as required by law, and the parties hereto are now duly authorized to execute and enter into this Lease;

NOW, THEREFORE, in consideration of the above premises and of the mutual covenants hereinafter contained and for other good and valuable consideration, the parties hereto agree as follows:

## ARTICLE I

### DEFINITIONS AND EXHIBITS

**SECTION 1.1 Definitions and Rules of Construction.** Unless the context otherwise requires, the capitalized terms used herein shall, for all purposes of this Lease, have the meanings specified in the definitions below. Unless the context otherwise indicates, words importing the singular number shall include the plural number and vice versa. The terms “hereby”, “hereof”, “hereto”, “herein”, “hereunder” and any similar terms, as used in this Lease, refer to this Lease as a whole.

“Acquisition Amount” means [insert lease amt.] and is the amount represented by Lessee to be sufficient to acquire the Leased Property and pay any ancillary costs associated therewith.

“Advance” shall have the meaning set forth in Section 2.1(l)(i)(D) hereof.

“Bank” shall have the meaning set forth in the Preamble hereof.

“Business Day” means any day except a Saturday, Sunday, or other day on which banks in Salt Lake City, Utah or the State are authorized to close.

“Code” means the Internal Revenue Code of 1986, as amended.

“Commencement Date” means the date this Lease is executed by the Bank and the Lessee and shall be the date on which the Acquisition Amount is deposited with the Escrow Agent.

“Escrow Account” means the fund established and held by the Escrow Agent pursuant to the Escrow Agreement.

“Escrow Agent” means the Escrow Agent identified in the Escrow Agreement, and its successors and assigns.

“Escrow Agreement” means the Escrow Agreement dated [dated date] executed by Lessee, Bank and the Escrow Agent, pursuant to which the Escrow Account is established and administered. A copy of the Escrow Agreement shall be found in Exhibit G.

“Event of Nonappropriation” shall have the meaning set forth in Section 3.2 hereof.

“Governing Body” means the governing body of the Lessee.

“Lease Payments” means the rental payments described in Exhibit A hereto.

“Lease Payment Date” shall have the meaning set forth in Section 3.4(a) hereof.

“Leased Property” shall have the meaning set forth in the Whereas clauses hereof.

“Lessee” shall have the meaning set forth in the Preamble hereof.

“Net Proceeds” means insurance or eminent domain proceeds received with respect to the Leased Property less expenses incurred in connection with the collection of such proceeds.

“Obligation Instrument” shall have the meaning set forth in Section 2.1(c) hereof.

“Original Term” shall have the meaning set forth in Section 3.2 hereof.

“Permitted Encumbrances” means, as of any particular time: (i) liens for taxes and assessments, if any, not then delinquent, or which the Lessee may, pursuant to provisions of Section 5.3 hereof, permit to remain unpaid; (ii) this Lease; (iii) any contested right or claim of any mechanic, laborer, materialman, supplier or vendor filed or perfected in the manner prescribed by law to the extent permitted under Section 5.4(b) hereof; (iv) easements, rights of way, mineral rights, drilling rights and other rights, reservations, covenants, conditions or restrictions which exist of record as of the execution date of this Lease and which the Lessee hereby certifies will not materially impair the use of the Leased Property by the Lessee; and (v) other rights, reservations, covenants, conditions or restrictions established following the date of execution of this Lease and to which the Bank and the Lessee consent in writing.

“Rebate Exemption” shall have the meaning set forth in Section 2.1(l)(ii)(A) hereof.

“Regulations” shall have the meaning set forth in Section 2.1(l)(i) hereof.

“Renewal Term” shall have the meaning set forth in Section 3.2 hereof.

“Scheduled Term” shall have the meaning set forth in Section 3.2 hereof.

“State” shall have the meaning set forth in the Preamble hereof.

“Term” or “Term of this Lease” means the Original Term and all Renewal Terms provided for in this Lease under Section 3.2 until this Lease is terminated as provided in Section 3.3 hereof.

SECTION 1.2 Exhibits. Exhibits A, B, C, D, E, F, and G attached to this Lease are by this reference made a part of this Lease.

## ARTICLE II

### REPRESENTATIONS, COVENANTS AND WARRANTIES

SECTION 2.1 Representations, Covenants and Warranties of the Lessee. The Lessee represents, covenants and warrants to the Bank as follows:

(a) Due Organization and Existence. The Lessee is a public agency of the State duly organized and existing under the Constitution and laws of the State.

(b) Authorization; Enforceability. The Constitution and laws of the State authorize the Lessee to enter into this Lease and to enter into the transactions contemplated by, and to carry out its obligations under, this Lease. The Lessee has duly authorized, executed and delivered this Lease in accordance with the Constitution and laws of the State. This Lease constitutes the legal, valid and binding special obligation of the Lessee enforceable in accordance with its terms, except to the extent limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws or equitable principles affecting the rights of creditors generally.

(c) No Conflicts or Default; Other Liens or Encumbrances. Neither the execution and delivery of this Lease nor the fulfillment of or compliance with the terms and conditions hereof, nor the consummation of the transactions contemplated hereby (i) conflicts with or results in a breach of the terms, conditions, provisions, or restrictions of any existing law, or court or administrative decree, order, or regulation, or agreement or instrument to which the Lessee is now a party or by which the Lessee is bound, **including without limitation any agreement or instrument pertaining to any bond, note, lease, certificate of participation, debt instrument, or any other obligation of the Lessee** (any such bond, note, lease, certificate of participation, debt instrument, and other obligation being referred to herein as an “Obligation Instrument”), (ii) constitutes a default under any of the foregoing, or (iii) results in the creation or imposition of any pledge, lien, charge or encumbrance whatsoever upon any of the property or assets of the Lessee, or upon the Leased Property except for Permitted Encumbrances.

**By way of example, and not to be construed as a limitation on the representations set forth in the immediately preceding paragraph:**

**(A) no portion of the Leased Property is pledged to secure any Obligation Instrument; and**

**(B) the interests of the Lessor in the Leased Property hereunder do not violate the terms, conditions or provisions of any restriction or revenue pledge in any agreement or instrument pertaining to any Obligation Instrument.**

If any Obligation Instrument existing on the date of execution of this Lease creates any pledge, lien, charge or encumbrance on any revenues, property or assets associated with the Leased Property that is higher in priority to the Bank’s interests therein under this Lease, the Bank hereby subordinates its interests therein, but only to the extent required pursuant to such existing Obligation Instrument.

(d) Compliance with Open Meeting Requirements. The Governing Body has complied with all applicable open public meeting and notice laws and requirements with respect to the meeting at which the Lessee's execution of this Lease was authorized.

(e) Compliance with Bidding Requirements. Either there are no procurement or public bidding laws of the State applicable to the acquisition and leasing of the Leased Property pursuant to this Lease, or the Governing Body and the Lessee have complied with all such procurement and public bidding laws as may be applicable hereto.

(f) No Adverse Litigation. There are no legal or governmental proceedings or litigation pending, or to the best knowledge of the Lessee threatened or contemplated (or any basis therefor) wherein an unfavorable decision, ruling, or finding might adversely affect the transaction contemplated in or the validity of this Lease.

(g) Opinion of Lessee's Counsel. The letter attached to this Lease as Exhibit D is a true opinion of Lessee's counsel.

(h) Governmental Use of Leased Property. During the Term of this Lease, the Leased Property will be used solely by the Lessee, and only for the purpose of performing one or more governmental or proprietary functions of the Lessee consistent with the permissible scope of the Lessee's authority, and the Leased Property will not be subject to any direct or indirect private business use.

(i) Other Representations and Covenants. The representations, covenants, warranties, and obligations set forth in this Article are in addition to and are not intended to limit any other representations, covenants, warranties, and obligations set forth in this Lease.

(j) No Nonappropriations. The Lessee has never non-appropriated or defaulted under any of its payment or performance obligations or covenants, either under any municipal lease of the same general nature as this Lease, or under any of its bonds, notes, or other obligations of indebtedness for which its revenues or general credit are pledged.

(k) No Legal Violation. The Leased Property is not, and at all times during the Term of this Lease will not be in violation of any federal, state or local law, statute, ordinance or regulation.

(l) General Tax and Arbitrage Representations and Covenants.

(i) The certifications and representations made by the Lessee in this Lease are intended, among other purposes, to be a certificate permitted in Section 1.148-2(b) of the Treasury Regulations promulgated pursuant to Section 148 of the Code (the "Regulations"), to establish the reasonable expectations of the Lessee at the time of the execution of this Lease made on the basis of the facts, estimates and circumstances in existence on the date hereof. The Lessee further certifies and covenants as follows:

(A) The Lessee has not been notified of any disqualification or proposed disqualification of it by the Commissioner of the Internal Revenue Service as an issuer which may certify bond issues.

(B) To the best knowledge and belief of the Lessee, there are no facts, estimates or circumstances that would materially change the conclusions, certifications or representations set forth in this Lease, and the expectations herein set forth are reasonable.

(C) The Scheduled Term of this Lease does not exceed the useful life of the Leased Property, and the weighted average term of this Lease does not exceed the weighted average useful life of the Leased Property.

(D) Each advance of funds by the Bank to finance Leased Property under this Lease (each an "Advance") will occur only when and to the extent that the Lessee has reasonably determined and identified the nature, need, and cost of each item of Leased Property pertaining to such Advance.

(E) No use will be made of the proceeds of this Lease or any such Advance, or any funds or accounts of the Lessee which may be deemed to be proceeds of this Lease or any such Advance, which use, if it had been reasonably expected on the date of the execution of this Lease or of any such Advance, would have caused this Lease or any such Advance to be classified as an "arbitrage bond" within the meaning of Section 148 of the Code.

(F) The Lessee will at all times comply with the rebate requirements of Section 148(f) of the Code as they pertain to this Lease, to the extent applicable.

(G) In order to preserve the status of this Lease and the Advances as other than "private activity bonds" as described in Sections 103(b)(1) and 141 of the Code, as long as this Lease and any such Advances are outstanding and unpaid:

(I) none of the proceeds from this Lease or the Advances or any facilities or assets financed therewith shall be used for any "private business use" as that term is used in Section 141(b) of the Code and defined in Section 141(b)(6) of the Code;

(II) the Lessee will not allow any such "private business use" to be made of the proceeds of this Lease or the Advances or any facilities or assets financed therewith; and

(III) none of the Advances or Lease Payments due hereunder shall be secured in whole or in part, directly or indirectly, by any interest in any property used in any such "private business use" or by payments in respect of such property, and shall not be derived from payments in respect of such property.

(H) The Lessee will not take any action, or omit to take any action, which action or omission would cause the interest component of the Lease Payments to be ineligible for the exclusion from gross income as provided in Section 103 of the Code.

(I) The Lessee is a "governmental unit" within the meaning of Section 141(b)(6) of the Code.

(J) The obligations of the Lessee under this Lease are not federally guaranteed within the meaning of Section 149(b) of the Code.

(K) This Lease and the Advances to be made pursuant hereto will not reimburse the Lessee for any expenditures incurred prior to the date of this Lease and do not constitute a "refunding issue" as defined in Section 1.150-1(d) of the

Regulations, and no part of the proceeds of this Lease or any such Advances will be used to pay or discharge any obligations of the Lessee the interest on which is or purports to be excludable from gross income under the Code or any predecessor provision of law.

(L) In compliance with Section 149(e) of the Code relating to information reporting, the Lessee will file or cause to be filed with the Internal Revenue Service Center, Ogden, UT 84201, within fifteen (15) days from the execution of this Lease, IRS Form 8038-G or 8038-GC, as appropriate, reflecting the total aggregate amount of Advances that can be made pursuant to this Lease.

(M) None of the proceeds of this Lease or the Advances to be made hereunder will be used directly or indirectly to replace funds of the Lessee used directly or indirectly to acquire obligations at a yield materially higher than the yield on this Lease or otherwise invested in any manner. No portion of the Advances will be made for the purpose of investing such portion at a materially higher yield than the yield on this Lease.

(N) Inasmuch as Advances will be made under this Lease only when and to the extent the Lessee reasonably determines, identifies and experiences the need therefor, and will remain outstanding and unpaid only until such time as the Lessee has moneys available to repay the same, the Lessee reasonably expects that (I) the Advances will not be made sooner than necessary; (II) no proceeds from the Advances will be invested at a yield higher than the yield on this Lease; and (III) the Advances and this Lease will not remain outstanding and unpaid longer than necessary.

(O) The Lessee will either (i) spend all of the moneys advanced pursuant to this Lease immediately upon receipt thereof, without investment, on the portion of the Leased Property that is to be financed thereby; or (ii) invest such moneys at the highest yield allowable and practicable under the circumstances until they are to be spent on the portion of the Leased Property that is to be financed thereby, and track, keep records of, and pay to the United States of America, all rebatable arbitrage pertaining thereto, at the times, in the amounts, in the manner, and to the extent required under Section 148(f) of the Code and the Treasury Regulations promulgated in connection therewith. At least five percent (5%) of the total amount of moneys that are expected to be advanced pursuant to this Lease are reasonably expected to have been expended on the Leased Property within six (6) months from the date of this Lease. All moneys to be advanced pursuant to this Lease are reasonably expected to have been expended on the Leased Property no later than the earlier of: (I) the date twelve (12) months from the date such moneys are advanced; and (II) the date three (3) years from the date of this Lease.

(P) This Lease and the Advances to be made hereunder are not and will not be part of a transaction or series of transactions that attempts to circumvent the provisions of Section 148 of the Code and the regulations promulgated in connection therewith (I) enabling the Lessee to exploit the difference between tax-exempt and taxable interest rates to gain a material financial advantage, and (II) overburdening the tax-exempt bond market, as those terms are used in Section 1.148-10(a)(2) of the Regulations.

(Q) To the best of the knowledge, information and belief of the Lessee, the above expectations are reasonable. On the basis of the foregoing, it is not

expected that the proceeds of this Lease and the Advances to be made hereunder will be used in a manner that would cause this Lease or such Advances to be "arbitrage bonds" under Section 148 of the Code and the regulations promulgated thereunder, and to the best of the knowledge, information and belief of the Lessee, there are no other facts, estimates or circumstances that would materially change the foregoing conclusions.

(ii) Arbitrage Rebate Under Section 148(f) of the Code. With respect to the arbitrage rebate requirements of Section 148(f) of the Code, either (check applicable box):

(A) Lessee Qualifies for Small Issuer Exemption from Arbitrage Rebate. The Lessee hereby certifies and represents that it qualifies for the exception contained in Section 148(f)(4)(D) of the Code from the requirement to rebate arbitrage earnings from investment of proceeds of the Advances made under this Lease (the "Rebate Exemption") as follows:

(1) The Lessee has general taxing powers.

(2) Neither this Lease, any Advances to be made hereunder, nor any portion thereof are private activity bonds as defined in Section 141 of the Code ("Private Activity Bonds").

(3) Ninety-five percent (95%) or more of the net proceeds of the Advances to be made hereunder are to be used for local government activities of the Lessee (or of a governmental unit, the jurisdiction of which is entirely within the jurisdiction of the Lessee).

(4) Neither the Lessee nor any aggregated issuer has issued or is reasonably expected to issue any tax-exempt obligations other than Private Activity Bonds (as those terms are used in Section 148(f)(4)(D) of the Code) during the current calendar year, including the Advances to be made hereunder, which in the aggregate would exceed \$5,000,000 in face amount, or \$15,000,000 in face amount for such portions, if any, of any tax-exempt obligations of the Lessee and any aggregated issuer as are attributable to construction of public school facilities within the meaning of Section 148(f)(4)(D)(vii) of the Code.

For purposes of this Section, "aggregated issuer" means any entity which (a) issues obligations on behalf of the Lessee, (b) derives its issuing authority from the Lessee, or (c) is subject to substantial control by the Lessee.

The Lessee hereby certifies and represents that it has not created, does not intend to create and does not expect to benefit from any entity formed or availed of to avoid the purposes of Section 148(f)(4)(D)(i)(IV) of the Code.

Accordingly, the Lessee will qualify for the Rebate Exemption granted to governmental units issuing less than \$5,000,000 under Section 148(f)(4)(D) of the Code (\$15,000,000 for the financing of public school facilities construction as described above), and the Lessee shall be treated as meeting the requirements of Paragraphs (2) and (3) of Section 148(f) of the Code relating to the required rebate of arbitrage earnings to the United States with respect to this Lease and the Advances to be made hereunder.

- or -

(B) Lessee Will Keep Records of and Will Rebate Arbitrage. The Lessee does not qualify for the small issuer Rebate Exemption described above, and the Lessee hereby certifies and covenants that it will account for, keep the appropriate records of, and pay to the United States, the rebate amount, if any, earned from the investment of gross proceeds of this Lease and the Advances to be made hereunder, at the times, in the amounts, and in the manner prescribed in Section 148(f) of the Code and the applicable Regulations promulgated with respect thereto.

(m) Small Issuer Exemption from Bank Nondeductibility Restriction. Based on the following representations of the Lessee, the Lessee hereby designates this Lease and the interest components of the Lease Payments hereunder as “qualified tax-exempt obligations” within the meaning of Section 265(b)(3) of the Code: (i) this Lease and the Lease Payments hereunder are not private activity bonds within the meaning of Section 141 of the Code; (ii) the Lessee reasonably anticipates that it, together with all “aggregated issuers,” will not issue during the current calendar year obligations (other than those obligations described in clause (iii) below) the interest on which is excluded from gross income for federal income tax purposes under Section 103 of the Code which, when aggregated with this Lease, will exceed an aggregate principal amount of \$10,000,000; (iii) and notwithstanding clause (ii) above, the Lessee and its aggregated issuers may have issued in the current calendar year and may continue to issue during the remainder of the current calendar year private activity bonds other than qualified 501(c)(3) bonds as defined in Section 145 of the Code. For purposes of this subsection, "aggregated issuer" means any entity which (a) issues obligations on behalf of the Lessee, (b) derives its issuing authority from the Lessee, or (c) is subject to substantial control by the Lessee. The Lessee hereby certifies and represents that it has not created, does not intend to create and does not expect to benefit from any entity formed or availed of to avoid the purposes of Section 265(b)(3)(C) or (D) of the Code.

(n) Reports to State. The Lessee has duly authorized and executed this Lease in accordance with A.R.S. section 35-501 and has filed with the State of Arizona all reports required thereunder relating to this Lease.

SECTION 2.2 Representations, Covenants and Warranties of the Bank. The Bank is a national banking association, duly organized, existing and in good standing under and by virtue of the laws of the United States of America, has the power to enter into this Lease, is possessed of full power to own and hold real and personal property, and to lease and sell the same, and has duly authorized the execution and delivery of this Lease. This Lease, constitutes the legal, valid and binding obligation of the Bank, enforceable in accordance with its terms, except to the extent limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws or equitable principles affecting the rights of creditors generally.

### ARTICLE III

#### AGREEMENT TO LEASE; TERM OF LEASE; LEASE PAYMENTS

SECTION 3.1 Lease. The Bank hereby leases the Leased Property to the Lessee, and the Lessee hereby leases the Leased Property from the Bank, upon the terms and conditions set forth herein.

Concurrently with its execution of this Lease, the Lessee shall deliver to the Bank fully completed documents substantially in the forms attached hereto as Exhibits B, C, D E, F, and G hereto.

SECTION 3.2 Term. The Term of this Lease shall commence on the date of execution of this Lease, which is also the date on which the Acquisition Amount is deposited with the Escrow Agent, including delivery to the Bank by the Lessee of fully completed documents in the forms set forth in Exhibits B, C, D, E, and F attached hereto, and continue until the end of the fiscal year of Lessee in effect at the Commencement Date (the "Original Term"). Thereafter, this Lease will be extended for 11 successive additional periods of one year coextensive with Lessee's fiscal year, except for the last such period which may be less than a full fiscal year, (each, a "Renewal Term") subject to an Event of Nonappropriation as described herein below in this Section 3.2 and in Section 3.3(a), with the final Renewal Term ending on November 15, 2030, unless this Lease is terminated as hereinafter provided. The Original Term together with all scheduled Renewal Terms shall be referred to herein as the "Scheduled Term" irrespective of whether this Lease is terminated for any reason prior to the scheduled commencement or termination of any Renewal Term as provided herein.

If Lessee does not appropriate funds for the payment of Lease Payments due for any Renewal Term in the adopted budget of the Lessee for the applicable fiscal year (an "Event of Nonappropriation"), this Lease will terminate upon the expiration of the Original or Renewal Term then in effect and Lessee shall notify Bank of such termination at least ten (10) days prior to the expiration of the Original or Renewal Term then in effect.

SECTION 3.3 Termination. This Lease will terminate upon the earliest of any of the following events:

- (a) upon the expiration of the Original Term or any Renewal Term of this Lease following an Event of Nonappropriation;
- (b) the exercise by Lessee of any option to purchase granted in this Lease by which Lessee purchases all of the Leased Property;
- (c) a default by Lessee and Bank's election to terminate this Lease under Article VII herein; or
- (d) the expiration of the Scheduled Term of this Lease, the Lessee having made payment of all Lease Payments accrued to such date.
- (e) Lessee may terminate this Lease at any time pursuant to A.R.S. § 38-511, to the extent applicable.

SECTION 3.4 Lease Payments.

(a) Time and Amount. During the Term of this Lease and so long as this Lease has not terminated pursuant to Section 3.3, the Lessee agrees to pay to the Bank, its successors and assigns, as annual rental for the use and possession of the Leased Property, the Lease Payments (denominated into components of principal and interest) in the amounts specified in Exhibit A, to be due and payable in arrears on each payment date identified in Exhibit A (or if such day is not a Business Day, the next succeeding Business Day) specified in Exhibit A (the "Lease Payment Date").

(b) Rate on Overdue Payments. In the event the Lessee should fail to make any of the Lease Payments required in this Section, the Lease Payment in default shall continue as an obligation of the Lessee until the amount in default shall have been fully paid, and the Lessee agrees to pay the same with interest thereon, to the extent permitted by law, from the date such amount was originally payable at the rate equal to the original interest rate payable with respect to such Lease Payments.

(c) Additional Payments. Any additional payments required to be made by the Lessee hereunder, including but not limited to Sections 4.1, 5.3, and 7.4 of this Lease, shall constitute additional rental for the Leased Property.

SECTION 3.5 Possession of Leased Property Upon Termination. Upon termination of this Lease pursuant to Sections 3.3(a), (c) or (e), the Lessee shall transfer the Leased Property to the Bank in such manner as may be specified by the Bank, and the Bank shall have the right to take possession of the Leased Property by virtue of the Bank's ownership interest as lessor of the Leased Property, and the Lessee at the Bank's direction shall ship the Leased Property to the destination designated by the Bank by loading the Leased Property at the Lessee's cost and expense, on board such carrier as the Bank shall specify.

SECTION 3.6 No Withholding. Notwithstanding any dispute between the Bank and the Lessee, including a dispute as to the failure of any portion of the Leased Property in use by or possession of the Lessee to perform the task for which it is leased, the Lessee shall make all Lease Payments when due and shall not withhold any Lease Payments pending the final resolution of such dispute.

SECTION 3.7 Lease Payments to Constitute a Current Obligation of the Lessee. Notwithstanding any other provision of this Lease, the Lessee and the Bank acknowledge and agree that the obligation of the Lessee to pay Lease Payments hereunder constitutes a current special obligation of the Lessee payable exclusively from current and legally available funds and shall not in any way be construed to be an indebtedness of the Lessee within the meaning of any constitutional or statutory limitation or requirement applicable to the Lessee concerning the creation of indebtedness. The Lessee has not hereby pledged the general tax revenues or credit of the Lessee to the payment of the Lease Payments, or the interest thereon, nor shall this Lease obligate the Lessee to apply money of the Lessee to the payment of Lease Payments beyond the then current Original Term or Renewal Term, as the case may be, or any interest thereon.

SECTION 3.8 Net Lease. This Lease shall be deemed and construed to be a "net-net-net lease" and the Lessee hereby agrees that the Lease Payments shall be an absolute net return to the Bank, free and clear of any expenses, charges or set-offs whatsoever, except as expressly provided herein.

SECTION 3.9 Offset. Lease Payments or other sums payable by Lessee pursuant to this Lease shall not be subject to set-off, deduction, counterclaim or abatement and Lessee shall not be entitled to any credit against such Lease Payments or other sums for any reason whatsoever, including, but not limited to: (i) any accident or unforeseen circumstances; (ii) any damage or destruction of the Leased Property or any part thereof; (iii) any restriction or interference with Lessee's use of the Leased Property; (iv) any defects, breakdowns, malfunctions, or unsuitability of the Leased Property or any part thereof; or (v) any dispute between the Lessee and the Bank, any vendor or manufacturer of any part of the Leased Property, or any other person.

## ARTICLE IV

### INSURANCE

SECTION 4.1 Insurance. Lessee, at Bank's option, will either self-insure, or at Lessee's cost, will cause casualty insurance, public liability insurance, and property damage insurance to be carried and maintained on the Leased Property, with all such coverages to be in such amounts sufficient to cover the value of the Leased Property at the commencement of this Lease (as determined by the purchase price paid for the Leased Property), and to be in such forms, to cover such risks, and with such insurers, as are customary for public entities such as the Lessee. A combination of self-insurance and policies of insurance may be utilized. If policies of insurance are obtained, Lessee will cause Bank to be the named insured on such policies as its interest under this Lease may appear. Subject to Section 4.2, insurance proceeds from insurance policies or

budgeted amounts from self-insurance as relating to casualty and property damage losses will, to the extent permitted by law, be payable to Bank in an amount equal to the then outstanding principal and accrued interest components of the Lease Payments at the time of such damage or destruction as provided by Section 8.1. Lessee will deliver to Bank the policies or evidences of insurance satisfactory to Bank, if any, together with receipts for the initial premiums before the Leased Property is delivered to Lessee. Renewal policies, if any together with receipts showing payment of the applicable premiums will be delivered to Bank at least thirty (30) days before termination of the policies being renewed. By endorsement upon the policy or by independent instrument furnished to Bank, such insurer will agree that it will give Bank at least thirty (30) days' written notice prior to cancellation or alteration of the policy. Lessee will carry workmen's compensation insurance covering all employees working on, in, or about the Leased Property, and will require any other person or entity working on, in, or about the Leased Property to carry such coverage, and will furnish to Bank certificates evidencing such coverages throughout the Term of this Lease.

**SECTION 4.2 Damage to or Destruction of the Leased Property.** If all or any part of the Leased Property is lost, stolen, destroyed, or damaged, Lessee will give Bank prompt notice of such event and will, to the extent permitted by law, repair or replace the same at Lessee's cost. If such lost, stolen, destroyed or damaged Leased Property is equipment, it shall be repaired or replaced within thirty (30) days after such event. If such lost, stolen, destroyed or damaged Leased Property is other than equipment, it shall be repaired or replaced within one hundred eighty (180) days after such event. Any replaced Leased Property will be substituted in this Lease by appropriate endorsement. All insurance proceeds received by Bank under the policies required under Section 4.1 with respect to the Leased Property lost, stolen, destroyed, or damaged, will be paid to Lessee if the Leased Property is repaired or replaced by Lessee as required by this Section. If Lessee fails or refuses to make the required repairs or replacement, such proceeds will be paid to Bank to the extent of the then remaining portion of the Lease Payments to become due during the Scheduled Term of this Lease less that portion of such Lease Payments attributable to interest which will not then have accrued as provided in Section 8.1. No loss, theft, destruction, or damage to the Leased Property will impose any obligation on Bank under this Lease, and this Lease will continue in full force and effect regardless of such loss, theft, destruction, or damage. Lessee assumes all risks and liabilities, whether or not covered by insurance, for loss, theft, destruction, or damage to the Leased Property and for injuries or deaths of persons and damage to property however arising, whether such injury or death be with respect to agents or employees of Lessee or of third parties, and whether such damage to property be to Lessee's property or to the property of others.

## ARTICLE V

### COVENANTS

**SECTION 5.1 Use of the Leased Property.** The Lessee represents and warrants that it has an immediate and essential need for the Leased Property to carry out and give effect to the public purposes of the Lessee, which need is not temporary or expected to diminish in the foreseeable future, and that it expects to make immediate use of all of the Leased Property.

The Lessee hereby covenants that it will install, use, operate, maintain, and service the Leased Property in accordance with all vendors' instructions and in such a manner as to preserve all warranties and guarantees with respect to the Leased Property.

The Lessor hereby assigns to the Lessee, without recourse, for the Term of this Lease, all manufacturer warranties and guaranties, express or implied, pertinent to the Leased Property, and the Lessor directs the Lessee to obtain the customary services furnished in connection with such warranties and guaranties at the Lessee's expense; provided, however, that the Lessee hereby agrees that it will reassign to the Lessor all such warranties and guaranties in the event of termination of this Lease pursuant to Sections 3.3(a) or 3.3(c).

SECTION 5.2 Interest in the Leased Property and this Lease. Upon expiration of the Term as provided in Section 3.3(b) or 3.3(d) hereof, all right, title and interest of the Bank in and to all of the Leased Property shall be transferred to and vest in the Lessee, without the necessity of any additional document of transfer.

SECTION 5.3 Maintenance, Utilities, Taxes and Assessments.

(a) Maintenance; Repair and Replacement. Throughout the Term of this Lease, as part of the consideration for the rental of the Leased Property, all repair and maintenance of the Leased Property shall be the responsibility of the Lessee, and the Lessee shall pay for or otherwise arrange for the payment of the cost of the repair and replacement of the Leased Property excepting ordinary wear and tear, and the Lessee hereby covenants and agrees that it will comply with all vendors' and manufacturers' maintenance and warranty requirements pertaining to the Leased Property. In exchange for the Lease Payments herein provided, the Bank agrees to provide only the Leased Property, as hereinbefore more specifically set forth.

(b) Tax and Assessments; Utility Charges. The Lessee shall also pay or cause to be paid all taxes and assessments, including but not limited to utility charges, of any type or nature charged to the Lessee or levied, assessed or charged against any portion of the Leased Property or the respective interests or estates therein; provided that with respect to special assessments or other governmental charges that may lawfully be paid in installments over a period of years, the Lessee shall be obligated to pay only such installments as are required to be paid during the Term of this Lease as and when the same become due.

(c) Contests. The Lessee may, at its expense and in its name, in good faith contest any such taxes, assessments, utility and other charges and, in the event of any such contest, may permit the taxes, assessments or other charges so contested to remain unpaid during the period of such contest and any appeal therefrom; provided that prior to such nonpayment it shall furnish the Bank with the opinion of an independent counsel acceptable to the Bank to the effect that, by nonpayment of any such items, the interest of the Bank in such portion of the Leased Property will not be materially endangered and that the Leased Property will not be subject to loss or forfeiture. Otherwise, the Lessee shall promptly pay such taxes, assessments or charges or make provisions for the payment thereof in form satisfactory to the Bank.

SECTION 5.4 Modification of the Leased Property.

(a) Additions, Modifications and Improvements. The Lessee shall, at its own expense, have the right to make additions, modifications, and improvements to any portion of the Leased Property if such improvements are necessary or beneficial for the use of such portion of the Leased Property. All such additions, modifications and improvements shall thereafter comprise part of the Leased Property and be subject to the provisions of this Lease. Such additions, modifications and improvements shall not in any way damage any portion of the Leased Property or cause it to be used for purposes other than those authorized under the provisions of State and federal law or in any way which would impair the exclusion from gross income for federal income tax purposes of the interest components of the Lease Payments; and the Leased Property, upon completion of any additions, modifications and improvements made pursuant to this Section, shall be of a value which is not substantially less than the value of the Leased Property immediately prior to the making of such additions, modifications and improvements.

(b) No Liens. Except for Permitted Encumbrances, the Lessee will not permit (i) any liens or encumbrances to be established or remain against the Leased Property or (ii) any mechanic's or other lien to be established or remain against the Leased Property for labor or materials furnished in

connection with any additions, modifications or improvements made by the Lessee pursuant to this Section; provided that if any such mechanic's lien is established and the Lessee shall first notify or cause to be notified the Bank of the Lessee's intention to do so, the Lessee may in good faith contest any lien filed or established against the Leased Property, and in such event may permit the items so contested to remain undischarged and unsatisfied during the period of such contest and any appeal therefrom and shall provide the Bank with full security against any loss or forfeiture which might arise from the nonpayment of any such item, in form satisfactory to the Bank. The Bank will cooperate fully in any such contest.

SECTION 5.5 Permits. The Lessee will provide all permits and licenses necessary for the ownership, possession, operation, and use of the Leased Property, and will comply with all laws, rules, regulations, and ordinances applicable to such ownership, possession, operation, and use. If compliance with any law, rule, regulation, ordinance, permit, or license requires changes or additions to be made to the Leased Property, such changes or additions will be made by the Lessee at its own expense.

SECTION 5.6 Bank's Right to Perform for Lessee. If the Lessee fails to make any payment or to satisfy any representation, covenant, warranty, or obligation contained herein or imposed hereby, the Bank may (but need not) make such payment or satisfy such representation, covenant, warranty, or obligation, and the amount of such payment and the expense of any such action incurred by the Bank, as the case may be, will be deemed to be additional rent payable by the Lessee on the Bank's demand.

SECTION 5.7 Bank's Disclaimer of Warranties. The Bank has played no part in the selection of the Leased Property, the Lessee having selected the Leased Property independently from the Bank. The Bank, at the Lessee's request, has acquired or arranged for the acquisition of the Leased Property and shall lease the same to the Lessee as herein provided, the Bank's only role being the facilitation of the financing of the Leased Property for the Lessee. THE BANK MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, AS TO THE VALUE, DESIGN, CONDITION, QUALITY, DURABILITY, SUITABILITY, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR FITNESS FOR THE USE CONTEMPLATED BY THE LESSEE OF THE LEASED PROPERTY, OR ANY PORTION THEREOF. THE LESSEE ACKNOWLEDGES THAT THE BANK IS NOT A MANUFACTURER OR VENDOR OF ALL OR ANY PORTION OF THE LEASED PROPERTY, AND THAT THE LESSEE IS LEASING THE LEASED PROPERTY AS IS. In no event shall the Bank be liable for incidental, direct, indirect, special or consequential damages, in connection with or arising out of this Lease, for the existence, furnishing, functioning or Lessee's use and possession of the Leased Property.

SECTION 5.8 Indemnification. To the extent permitted by applicable law, the Lessee hereby agrees to indemnify and hold harmless the Bank, its directors, officers, shareholders, employees, agents, and successors from and against any loss, claim, damage, expense, and liability resulting from or attributable to the acquisition, construction, or use of the Leased Property. Notwithstanding the foregoing, the Bank shall not be indemnified for any liability resulting from the gross negligence or willful misconduct of the Bank.

SECTION 5.9 Inclusion for Consideration as Budget Item. During the Term of this Lease, the Lessee covenants and agrees that it shall give due consideration, in accordance with applicable law, as an item for expenditure during its annual budget considerations, of an amount necessary to pay Lease Payments for the Leased Property during the next succeeding Renewal Term. Nothing herein shall be construed to direct or require that Lessee take or direct that any legislative act be done, or that the Governing Body of Lessee improperly or unlawfully delegate any of its legislative authority.

SECTION 5.10 Annual Financial Information. During the Term of this Lease, the Lessee covenants and agrees to provide the Bank as soon as practicable when they are available: (i) a copy of the Lessee's final annual budget for each fiscal year; (ii) a copy of the Lessee's most recent financial statements; and (iii) any other financial reports the Bank may request from time to time.

## ARTICLE VI

### ASSIGNMENT AND SUBLEASING

SECTION 6.1 Assignment by the Bank. The parties hereto agree that all rights of Bank hereunder may be assigned, transferred or otherwise disposed of, either in whole or in part, including without limitation transfer to a trustee pursuant to a trust arrangement under which the trustee issues certificates of participation evidencing undivided interests in this Lease and/or the rights to receive Lease Payments hereunder, provided that notice of any such assignment, transfer or other disposition is given to Lessee.

SECTION 6.2 Assignment and Subleasing by the Lessee. The Lessee may not assign this Lease or sublease all or any portion of the Leased Property unless both of the following shall have occurred: (i) the Bank shall have consented to such assignment or sublease; and (ii) the Bank shall have received assurance acceptable to the Bank that such assignment or sublease: (A) is authorized under applicable state law, (B) will not adversely affect the validity of this Lease, and (C) will not adversely affect the exclusion from gross income for federal income tax purposes of the interest components of the Lease Payments.

## ARTICLE VII

### EVENTS OF DEFAULT AND REMEDIES

SECTION 7.1 Events of Default Defined. The following shall be “events of default” under this Lease and the terms “events of default” and “default” shall mean, whenever they are used in this Lease, any one or more of the following events:

(a) Payment Default. Failure by the Lessee to pay any Lease Payment required to be paid hereunder by the corresponding Lease Payment Date.

(b) Covenant Default. Failure by the Lessee to observe and perform any warranty, covenant, condition or agreement on its part to be observed or performed herein or otherwise with respect hereto other than as referred to in clause (a) of this Section, for a period of 30 days after written notice specifying such failure and requesting that it be remedied has been given to the Lessee by the Bank; provided, however, if the failure stated in the notice cannot be corrected within the applicable period, the Bank shall not unreasonably withhold their consent to an extension of such time if corrective action is instituted by the Lessee within the applicable period and diligently pursued until the default is corrected.

(c) Bankruptcy or Insolvency. The filing by the Lessee of a case in bankruptcy, or the subjection of any right or interest of the Lessee under this Lease to any execution, garnishment or attachment, or adjudication of the Lessee as a bankrupt, or assignment by the Lessee for the benefit of creditors, or the entry by the Lessee into an agreement of composition with creditors, or the approval by a court of competent jurisdiction of a petition applicable to the Lessee in any proceedings instituted under the provisions of the federal bankruptcy code, as amended, or under any similar act which may hereafter be enacted.

The foregoing provisions of this Section 7.1 are subject to the provisions of Section 3.2 hereof with respect to nonappropriation.

SECTION 7.2 Remedies on Default. Whenever any event of default referred to in Section 7.1 hereof shall have happened and be continuing, the Bank shall have the right, at its sole option without any further demand or notice to take one or any combination of the following remedial steps:

- (a) take possession of the Leased Property by virtue of the Bank's ownership interest as lessor of the Leased Property;
- (b) hold the Lessee liable for the difference between (i) the rents and other amounts payable by Lessee hereunder to the end of the then current Original Term or Renewal Term, as appropriate, and (ii) the rent paid by a lessee of the Leased Property pursuant to such lease; and
- (c) take whatever action at law or in equity may appear necessary or desirable to enforce its rights under this Lease, the Security Documents (defined in Section 9.3), the Escrow Agreement or as a secured party in any or all of the Leased Property or the Escrow Account hereunder.
- (d) terminate the Escrow Agreement and apply the proceeds in the Escrow Account to the Lease Payments due hereunder.

SECTION 7.3 No Remedy Exclusive. No remedy conferred herein upon or reserved to the Bank is intended to be exclusive and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Lease or now or hereafter existing at law or in equity. No delay or omission to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right and power may be exercised from time to time and as often as may be deemed expedient. In order to entitle the Bank to exercise any remedy reserved to it in this Article it shall not be necessary to give any notice, other than such notice as may be required in this Article or by law.

SECTION 7.4 Agreement to Pay Attorneys' Fees and Expenses. In the event either party to this Lease should default under any of the provisions hereof and the nondefaulting party should employ attorneys or incur other expenses for the collection of moneys or the enforcement of performance or observance of any obligation or agreement on the part of the defaulting party contained herein, the defaulting party agrees that it will pay on demand to the nondefaulting party the reasonable fees of such attorneys and such other expenses so incurred by the nondefaulting party.

SECTION 7.5 Waiver of Certain Damages. With respect to all of the remedies provided for in this Article VII, the Lessee hereby waives any damages occasioned by the Bank's repossession of the Leased Property upon an event of default.

## ARTICLE VIII

### PREPAYMENT OF LEASE PAYMENTS IN PART

SECTION 8.1 Extraordinary Prepayment From Net Proceeds. To the extent, if any, required pursuant to Section 4.1 the Lessee shall be obligated to purchase the Leased Property by prepaying the Lease Payments in whole or in part on any date, from and to the extent of any Net Proceeds or other moneys pursuant to Article IV hereof. The Lessee and the Bank hereby agree that in the case of such prepayment of the Lease Payments in part, such Net Proceeds or other moneys shall be credited toward the Lessee's obligations hereunder pro rata among Lease Payments so that following prepayment, the remaining annual Lease Payments will be proportional to the initial annual Lease Payments.

SECTION 8.2 Option to Purchase Leased Property. Subject to the terms and conditions of this Section, the Bank hereby grants an option to the Lessee to purchase all or a portion of the Leased Property

by paying on any date a price equal to the portion of the outstanding principal component of the Lease Payments that is allocable to such portion of the Leased Property that is being so purchased, without premium, plus the accrued interest component of such portion of the Lease Payments to such payment date. To exercise this option, the Lessee must deliver to the Bank written notice specifying the date on which the Leased Property is to be purchased (the "Closing Date"), which notice must be delivered to the Bank at least thirty (30) days prior to the Closing Date specified therein. The Lessee may purchase the Leased Property pursuant to the option granted in this Section only if the Lessee has made all Lease Payments when due (or has remedied any defaults in the payment of Lease Payments, in accordance with the provisions of this Lease) and all other warranties, representations, covenants, and obligations of the Lessee under this Lease have been satisfied (or all breaches thereof have been waived by the Bank in writing).

Upon the expiration of the Scheduled Term of this Lease and provided that all conditions of the immediately preceding paragraph have been satisfied (except those pertaining to notice), the Lessee shall be deemed to have purchased the Leased Property (without the need for payment of additional moneys) and shall be vested with all rights and title to the Leased Property.

## ARTICLE IX

### MISCELLANEOUS

SECTION 9.1 Notices. Unless otherwise specifically provided herein, all notices shall be in writing addressed to the respective party as set forth below (or to such other address as the party to whom such notice is intended shall have previously designated by written notice to the serving party), and may be personally served, telecopied, or sent by overnight courier service or United States mail:

If to Bank:

ZIONS BANCORPORATION, N.A.  
One South Main Street, 17<sup>th</sup> Floor  
Salt Lake City, Utah 84133  
Attention: Kirsi Hansen

If to the Lessee:

City of Sedona  
102 Roadrunner Drive  
Sedona, AZ 86336  
Attention: Cherie Wright

Such notices shall be deemed to have been given: (a) if delivered in person, when delivered; (b) if delivered by telecopy, on the date of transmission if transmitted by 4:00 p.m. (Salt Lake City time) on a Business Day or, if not, on the next succeeding Business Day; (c) if delivered by overnight courier, two Business Days after delivery to such courier properly addressed; or (d) if by United States mail, four Business Days after depositing in the United States mail, postage prepaid and properly addressed.

SECTION 9.2 System of Registration. The Lessee shall be the Registrar for this Lease and the rights to payments hereunder. The Bank shall be the initial Registered Owner of rights to receive payments hereunder. If the Bank transfers its rights to receive payments hereunder, the Registrar shall note on this Lease the name and address of the transferee.

SECTION 9.3 Instruments of Further Assurance. To the extent, if any, that the Bank's interest in the Leased Property as Lessor under this Lease is deemed to be a security interest in the Leased Property, then the Lessee shall be deemed to have granted, and in such event the Lessee does hereby grant, a security interest in the Leased Property and any moneys and investments held from time to time in the Escrow Account to the Bank, which security interest includes proceeds, and this Lease shall constitute a security agreement under applicable law. Concurrently with the execution of this Lease, the Lessee has executed, delivered, and filed and/or recorded all financing statements, UCC forms, mortgages, deeds of trust, notices, filings, and/or other instruments, in form required for filing and/or recording thereof, as are required under applicable law to fully perfect such security interest of the Bank in the Leased Property (collectively, "Security Documents"). Attached hereto as Exhibit E are copies of all such Security Documents. The

Lessee will do, execute, acknowledge, deliver and record, or cause to be done, executed, acknowledged, delivered and recorded, such additional acts, notices, filings and instruments as the Bank may require in its sole discretion to evidence, reflect and perfect the title, ownership, leasehold interest, security interest and/or other interest of the Bank in and to any part or all of the Leased Property, promptly upon the request of the Bank.

SECTION 9.4 Binding Effect. This Lease shall inure to the benefit of and shall be binding upon the Bank and the Lessee and their respective successors and assigns.

SECTION 9.5 Amendments. This Lease may be amended or modified only upon the written agreement of both the Bank and the Lessee.

SECTION 9.6 Section Headings. Section headings are for reference only, and shall not be used to interpret this Lease.

SECTION 9.7 Severability. In the event any provision of this Lease shall be held invalid or unenforceable by a court of competent jurisdiction, to the extent permitted by law, such holding shall not invalidate or render unenforceable any other provision hereof.

SECTION 9.8 Entire Agreement. This Lease and the attached Exhibits constitute the entire agreement between the Bank and the Lessee and supersedes any prior agreement between the Bank and the Lessee with respect to the Leased Property, except as is set forth in an Addendum, if any, which is made a part of this Lease and which is signed by both the Bank and the Lessee.

SECTION 9.9 Execution in Counterparts. This Lease may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

SECTION 9.10 Arbitration. To the extent permitted by law, any dispute, controversy or claim arising out of or based upon the terms of this Lease or the transactions contemplated hereby shall be settled exclusively and finally by binding arbitration. Upon written demand for arbitration by any party hereto, the parties to the dispute shall confer and attempt in good faith to agree upon one arbitrator. If the parties have not agreed upon an arbitrator within thirty (30) days after receipt of such written demand, each party to the dispute shall appoint one arbitrator and those two arbitrators shall agree upon a third arbitrator. Any arbitrator or arbitrators appointed as provided in this section shall be selected from panels maintained by, and the binding arbitration shall be conducted in accordance with the commercial arbitration rules of, the American Arbitration Association (or any successor organization), and such arbitration shall be binding upon the parties. The arbitrator or arbitrators shall have no power to add or detract from the agreements of the parties and may not make any ruling or award that does not conform to the terms and conditions of this Lease. The arbitrator or arbitrators shall have no authority to award punitive damages or any other damages not measured by the prevailing party's actual damages. Judgment upon an arbitration award may be entered in any court having jurisdiction. The prevailing party in the arbitration proceedings shall be awarded reasonable attorney fees and expert witness costs and expenses.

SECTION 9.11 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State.

SECTION 9.12 Immigration. To the extent applicable and except as stated below, pursuant to the provisions of the Section 41-4401 of the Arizona Revised Statutes, and in accordance with federal law and Bank's practice, Bank hereby warrants and certifies that Bank complies with the Immigration Reform and Control Act of 1986 and employment with the Bank is contingent on the successful completion of the I-9 verification process and the E-Verify requirements of Section 23-214(A) of the Arizona Revised Statutes. Such employment with Bank is not contingent on any of the

other requirements of Section 23-214(A). Bank does not knowingly employ any individuals in the United States who are not legally authorized to work in the United States. For associate confidentiality reasons, Bank generally does not disclose or allow the inspection of its personnel records of its associates to third parties, including I-9 or e-Verify documentation. However, if there are concerns about an individual's eligibility to perform work in connection with this Agreement, please contact Lessor in accordance with Section 9.1 of this Agreement and Lessor will investigate and respond to these concerns.

IN WITNESS WHEREOF, the Bank has caused this Lease to be executed in its name by its duly authorized officer, and the Lessee has caused this Lease to be executed in its name by its duly authorized officer, as of the date first above written.

**ZIONS BANCORPORATION, N.A.,** as Lessor

By \_\_\_\_\_  
Authorized Officer

**CITY OF SEDONA,** as Lessee

By: \_\_\_\_\_  
\_\_\_\_\_  
Title

EXHIBIT A

FIXED RATE

LEASE PAYMENT DEBT SERVICE SCHEDULE\*

**1. Interest.** Interest components payable on the principal amount outstanding have been computed at the rate of three and sixty hundredths percent ( 3.60 %) per annum calculated based on actual number of days elapsed during a 360-day year.

**2. Payment Dates and Amounts.**

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
11/23/2018	-	-	-	-	-
11/15/2019	22,634.96	3.600%	13,147.13	35,782.09	35,782.09
11/15/2020	23,863.67	3.600%	12,631.07	36,494.74	36,494.74
11/15/2021	25,449.91	3.600%	11,771.98	37,221.89	37,221.89
11/15/2022	27,107.25	3.600%	10,855.78	37,963.03	37,963.03
11/15/2023	28,839.27	3.600%	9,879.92	38,719.19	38,719.19
11/15/2024	30,648.63	3.600%	8,841.71	39,490.34	39,490.34
11/15/2025	32,538.13	3.600%	7,738.36	40,276.49	40,276.49
11/15/2026	34,512.65	3.600%	6,566.98	41,079.63	41,079.63
11/15/2027	36,573.26	3.600%	5,324.53	41,897.79	41,897.79
11/15/2028	37,772.04	3.600%	4,007.89	41,779.93	41,779.93
11/15/2029	36,129.71	3.600%	2,648.10	38,777.81	38,777.81
11/15/2030	37,428.52	3.600%	1,347.43	38,775.95	38,775.95
<b>Total</b>	<b>\$373,498.00</b>	<b>-</b>	<b>\$94,760.88</b>	<b>\$468,258.88</b>	<b>-</b>

EXHIBIT B

DESCRIPTION OF THE LEASED PROPERTY

Energy Efficiency Equipment

(Please provide a more detailed description)

EXHIBIT C

RESOLUTION OF GOVERNING BODY

**A resolution approving the form of the Lease/Purchase Agreement with ZIONS BANCORPORATION, N.A., Salt Lake City, Utah and authorizing the execution and delivery thereof.**

*Whereas*, The Sedona City Council (the “Governing Body”) of City of Sedona (the “Lessee”) has determined that the leasing of the property described in the Lease/Purchase Agreement (the “Lease/Purchase Agreement”) presented at this meeting is for a valid public purpose and is essential to the operations of the Lessee; and

*Whereas*, the Governing Body has reviewed the form of the Lease/Purchase Agreement and has found the terms and conditions thereof acceptable to the Lessee; and

*Whereas*, either there are no legal bidding requirements under applicable law to arrange for the leasing of such property under the Lease/Purchase Agreement, or the Governing Body has taken the steps necessary to comply with the same with respect to the Lease/Purchase Agreement.

*Be it resolved* by the Governing Body of City of Sedona as follows:

SECTION 1. The terms of said Lease/Purchase Agreement are in the best interests of the Lessee for the leasing of the property described therein.

SECTION 2. The appropriate officers and officials of the Lessee are hereby authorized and directed to execute and deliver the Lease/Purchase Agreement in substantially the form presented to this meeting and any related documents and certificates necessary to the consummation of the transactions contemplated by the Lease/Purchase Agreement for and on behalf of the Lessee. The officers and officials of the Lessee may make such changes to the Lease/Purchase Agreement and related documents and certificates as such officers and officials deem necessary or desirable, such approval to be conclusively evidenced by the execution and delivery thereof.

SECTION 3. The officers and officials of the Governing Body and the Lessee are hereby authorized and directed to fulfill all obligations under the terms of the Lease/Purchase Agreement.

Adopted and approved this \_\_\_\_ day of \_\_\_\_\_, 2018.

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Attest:

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

STATE OF ARIZONA )  
 ) ss.  
COUNTY OF YAVAPAI )

I, \_\_\_\_\_ hereby certify that I am the duly qualified and acting  
\_\_\_\_\_ of City of Sedona (the "Lessee").  
(Title)

I further certify that the above and foregoing instrument constitutes a true and correct copy of the minutes of a regular meeting of the governing body including a Resolution adopted at said meeting held on October \_\_, 2018, as said minutes and Resolution are officially of record in my possession, and that a copy of said Resolution was deposited in my office on \_\_\_\_\_, 2018.

*In witness whereof*, I have hereunto set my hand on behalf of the Lessee this \_\_\_\_ day of \_\_\_\_\_, 2018.

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

EXHIBIT D

Opinion of Lessee's Counsel

To: ZIONS BANCORPORATION, N.A.  
One South Main Street, 17<sup>th</sup> Floor  
Salt Lake City, Utah 84133

As counsel for City of Sedona ("Lessee"), I have examined duly executed originals of the Lease/Purchase Agreement (the "Lease") dated this 28th day of November, 2018, between the Lessee and ZIONS BANCORPORATION, N.A., Salt Lake City, Utah ("Bank"), and the proceedings taken by Lessee to authorize and execute the Lease (the "Proceedings"). Based upon such examination as I have deemed necessary or appropriate, I am of the opinion that:

1. Lessee is a body corporate and politic, legally existing under the laws of the State of Arizona (the "State").
2. The Lease and the Proceedings have been duly adopted, authorized, executed, and delivered by Lessee, and do not require the seal of Lessee to be effective, valid, legal, or binding.
3. The governing body of Lessee has complied with all applicable open public meeting and notice laws and requirements with respect to the meeting at which the Proceedings were adopted and the Lessee's execution of the Lease was authorized.
4. The Lease is a legal, valid, and binding obligation of Lessee, enforceable against Lessee in accordance with its terms except as limited by the state and federal laws affecting remedies and by bankruptcy, reorganization, or other laws of general application affecting the enforcement of creditor's rights generally.
5. Either there are no usury laws of the State applicable to the Lease, or the Lease is in accordance with and does not violate all such usury laws as may be applicable.
6. Either there are no procurement or public bidding laws of the State applicable to the acquisition and leasing of the Leased Property (as defined in the Lease) from the Bank under the Lease, or the acquisition and leasing of the Leased Property from the Bank under the Lease comply with all such procurement and public bidding laws as may be applicable.
7. There are no legal or governmental proceedings or litigation pending or, to the best of my knowledge, threatened or contemplated (or any basis therefor) wherein an unfavorable decision, ruling or finding might adversely affect the transactions contemplated in or the validity of the Lease.
8. The adoption, execution and/or delivery of the Lease and the Proceedings, and the compliance by the Lessee with their provisions, will not conflict with or constitute a breach of or default under any court decree or order or any agreement, indenture, lease or other instrument or any existing law or administrative regulation, decree or order to which the Lessee is subject or by which the Lessee is or may be bound.
9. Although we are not opining as to the ownership of the Leased Property or the priority of liens thereon, it is also our opinion that the Security Documents attached as Exhibit E to the Lease are sufficient in substance, form, and description, and indicated place, address, and method of filing and/or recording, to completely and fully perfect the security interest in every portion of the Leased Property granted under the Lease, and no other filings and/or recordings are necessary to fully perfect said security interest in the Leased Property.

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Attorney for Lessee

EXHIBIT E

SECURITY DOCUMENTS

[Attach UCC-1 Financing Statement showing ZIONS BANCORPORATION, N.A. as the lien holder]

EXHIBIT F

DELIVERY AND ACCEPTANCE CERTIFICATE

To: ZIONS BANCORPORATION, N.A.  
One South Main Street, 17<sup>th</sup> Floor  
Salt Lake City, Utah 84133

Reference is made to the Lease/Purchase Agreement between the undersigned (“Lessee”), and ZIONS BANCORPORATION, N.A. (the “Bank”), dated November 28, 2018 , (the “Lease”) and to that part of the Leased Property described therein which comprises personal property (collectively, the “Equipment”). In connection therewith we are pleased to confirm to you the following:

1. All of the Equipment has been delivered to and received by the undersigned; all installation or other work necessary prior to the use thereof has been completed; said Equipment has been examined and/or tested and is in good operating order and condition and is in all respects satisfactory to the undersigned and as represented, and that said Equipment has been accepted by the undersigned and complies with all terms of the Lease. Consequently, you are hereby authorized to pay for the Equipment in accordance with the terms of any purchase orders for the same.
2. In the future, in the event the Equipment fails to perform as expected or represented we will continue to honor the Lease in all respects and continue to make our rental and other payments thereunder in the normal course of business and we will look solely to the vendor, distributor or manufacturer for recourse.
3. We acknowledge that the Bank is neither the vendor nor manufacturer or distributor of the Equipment and has no control, knowledge or familiarity with the condition, capacity, functioning or other characteristics of the Equipment.
4. The serial number for each item of Equipment which is set forth on Exhibit “B” to the Lease is correct.

This certificate shall not be considered to alter, construe, or amend the terms of the Lease.

Lessee:

**CITY OF SEDONA**

By: \_\_\_\_\_  
(Authorized Signature)

Date: \_\_\_\_\_

## EXHIBIT G

### FORM OF ESCROW AGREEMENT

This Escrow Agreement (this “Agreement”), dated November 28, 2018, by and among ZIONS BANCORPORATION, N.A., a national banking association (hereinafter referred to as “Lessor”), City of Sedona, a body politic and corporate of the State of Arizona (hereinafter referred to as “Lessee”), and Zions Bank, a division of ZIONS BANCORPORATION, N.A., a national banking association (hereinafter referred to as “Escrow Agent”).

Reference is made to that certain Lease/Purchase Agreement, dated November 28, 2018, between Lessor and Lessee (hereinafter referred to as the “Lease”), covering the acquisition and lease of certain Leased Property described therein (the “Leased Property”). It is a requirement of the Lease that the Acquisition Amount be deposited with the Escrow Agent hereunder for the purpose of providing a mechanism for the application of such amounts to the payment of Leased Property costs.

The parties agree as follows:

1. Creation of Escrow Account.

(a) There is hereby created a special trust fund to be known as the “City of Sedona Escrow Account” (the “Escrow Account”) to be held in trust by the Escrow Agent for the purposes stated herein, for the benefit of Lessor and Lessee, to be held, disbursed and returned in accordance with the terms hereof. On the date hereof, from proceeds of the Lease, Lessor has caused the amount of \$373,498.00 to be transferred to Escrow Agent for deposit into the Escrow Account.

(b) The Escrow Agent shall invest and reinvest moneys on deposit in the Escrow Account in Qualified Investments in accordance with written instructions received from Lessee. Lessee shall be solely responsible for ascertaining that all proposed investments and reinvestments are Qualified Investments and that they comply with federal, state and local laws, regulations and ordinances governing investment of such funds and for providing appropriate notice to the Escrow Agent for the reinvestment of any maturing investment. Accordingly, neither the Escrow Agent nor Lessor shall be responsible for any liability, cost, expense, loss or claim of any kind, directly or indirectly arising out of or related to the investment or reinvestment of all or any portion of the moneys on deposit in the Escrow Account, and Lessee agrees to and does hereby release the Escrow Agent and Lessor from any such liability, cost, expenses, loss or claim. Interest on the Escrow Account shall become part of the Escrow Account, and gains and losses on the investment of the moneys on deposit in the Escrow Account shall be borne by the Escrow Account. The Escrow Agent shall have no discretion whatsoever with respect to the management, disposition or investment of the Escrow Account and is not a trustee or a fiduciary to Lessee. The Escrow Agent shall not be responsible for any market decline in the value of the Escrow Account and has no obligation to notify Lessor and Lessee of any

such decline or take any action with respect to the Escrow Account, except upon specific written instructions stated herein. For purposes of this agreement, "Qualified Investments" means any investments which meet the requirements of the investment of public funds by Lessee in accordance with applicable Arizona law and any applicable policy that the governing body of the Lessee has adopted with respect to the investment of public funds.

(c) Lessee covenants that all investments of amounts deposited in the Escrow Account or other fund containing gross proceeds of the Lease will be acquired, disposed of and valued at the fair market value thereof. Investments in funds or accounts (or portions thereof) that are subject to a yield restriction under applicable provisions of the Internal Revenue Code of 1986, as amended (the "*Code*") will be valued at their present value. Terms used in this subsection (c) shall have the meanings given them in the applicable provisions of the Code.

(d) Unless the Escrow Account is earlier terminated in accordance with the provisions of paragraph (e) below, amounts in the Escrow Account shall be disbursed by the Escrow Agent in payment of amounts described in Section 2 hereof upon receipt of written authorization(s) from Lessor, as is more fully described in Section 2 hereof. If the amounts in the Escrow Account are insufficient to pay such amounts, Lessee shall provide any balance of the funds needed to complete the acquisition of the Leased Property. Any moneys remaining in the Escrow Account on or after the date on which Lessee executes the Delivery and Acceptance Certificate (defined in Section 2(c)(3) below) shall be applied as provided in Section 4 hereof.

(e) The Escrow Account shall be terminated at the earliest of (i) the final distribution of amounts in the Escrow Account (including delivery to Lessor by Lessee of an executed Delivery and Acceptance Certificate contained in the Lease), or (ii) written notice given by Lessor of the occurrence of a default or non-appropriation of the Lease.

(f) The Escrow Agent may act in reliance upon any writing or instrument or signature which it, in good faith, believes to be genuine and may assume the validity and accuracy of any statement or assertion contained in such a writing or instrument. The Escrow Agent shall not be liable in any manner for the sufficiency or correctness as to form, manner of execution, or validity of any instrument nor as to the identity, authority, or right of any person executing the same; and its duties hereunder shall be limited to the receipt of such moneys, instruments or other documents received by it as the Escrow Agent, and for the disposition of the same in accordance herewith. In the event conflicting instructions as to the disposition of all or any portion of the Escrow Account are at any time given by Lessor and Lessee, the Escrow Agent shall abide by the instructions or entitlement orders given by Lessor without consent of the Lessee.

(g) Unless the Escrow Agent is guilty of gross negligence or willful misconduct with regard to its duties hereunder, Lessee agrees to and does hereby release and indemnify the Escrow Agent and hold it harmless from any and all claims, liabilities, losses, actions, suits or proceedings at law or in equity, or any other expense, fees or charges of any character or nature, which it may incur or with which it may be threatened

by reason of its acting as Escrow Agent under this Agreement; and in connection therewith, does to the extent permitted by law indemnify the Escrow Agent against any and all expenses; including reasonable attorneys' fees and the cost of defending any action, suit or proceeding or resisting any claim.

(h) If Lessee and Lessor shall be in disagreement about the interpretation of the Lease, or about the rights and obligations, or the propriety of any action contemplated by the Escrow Agent hereunder, the Escrow Agent may, but shall not be required to, file an appropriate civil action to resolve the disagreement. The Escrow Agent shall be reimbursed by Lessee for all costs, including reasonable attorneys' fees, in connection with such civil action, and shall be fully protected in suspending all or part of its activities under the Lease until a final judgment in such action is received.

(i) The Escrow Agent may consult with counsel of its own choice and shall have full and complete authorization and protection with the opinion of such counsel. The Escrow Agent shall otherwise not be liable for any mistakes of fact or errors of judgment, or for any acts or omissions of any kind unless caused by its willful misconduct.

(j) Lessee shall reimburse the Escrow Agent for all reasonable costs and expenses, including those of the Escrow Agent's attorneys, agents and employees incurred for extraordinary administration of the Escrow Account and the performance of the Escrow Agent's powers and duties hereunder in connection with any Event of Default under the Lease, or in connection with any dispute between Lessor and Lessee concerning the Escrow Account.

(k) The Escrow Agent or any successor may at any time resign by giving mailed notice to Lessee and Lessor of its intention to resign and of the proposed date of resignation (the "Effective Date"), which shall be a date not less than 90 days after such notice is delivered to an express carrier, charges prepaid, unless an earlier resignation date and the appointment of a successor shall have been approved by the Lessee and Lessor. After the Effective Date, the Escrow Agent shall be under no further obligation except to hold the Escrow Account in accordance with the terms of this Agreement, pending receipt of written instructions from Lessor regarding further disposition of the Escrow Account.

(l) The Escrow Agent shall have no responsibilities, obligations or duties other than those expressly set forth in this Agreement and no fiduciary or implied duties, responsibilities or obligations shall be read into this Agreement.

## 2. Acquisition of Property.

(a) Acquisition Contracts. Lessee will arrange for, supervise and provide for, or cause to be supervised and provided for, the acquisition of the Leased Property, with moneys available in the Escrow Account. Lessee represents the estimated costs of the Leased Property are within the funds estimated to be available therefor, and Lessor makes no warranty or representation with respect thereto. Lessor shall have no liability under any of the acquisition or construction contracts. Lessee shall obtain all

necessary permits and approvals, if any, for the acquisition, equipping and installation of the Leased Property, and the operation and maintenance thereof.

(b) Authorized Escrow Account Disbursements. Disbursements from the Escrow Account shall be made for the purpose of paying (including the reimbursement to Lessee for advances from its own funds to accomplish the purposes hereinafter described) the Leased Property Costs and any delivery costs.

(c) Requisition Procedure. No disbursement from the Escrow Account shall be made unless and until Lessor has approved such requisition. Prior to disbursement from the Escrow Account there shall be filed with the Escrow Agent a requisition for such payment in the form of Disbursement Request attached hereto as Schedule 1, stating each amount to be paid and the name of the person, firm or corporation to whom payment thereof is due. Each such requisition shall be signed by Marvin Dodge (including his successors or anyone whom he or his successors may appoint to sign) of Lessee (an "Authorized Representative") and by Lessor, and shall be subject to the following:

1. Delivery to Lessor of an executed Disbursement Request in the form attached hereto as Schedule 1 certifying that:

(i)(A) an obligation in the stated amount has been incurred by Lessee, and that the same is a proper charge against the Escrow Account for costs relating to the Leased Property identified in the Lease, and has not been paid (or has been paid by Lessee and Lessee requests reimbursement thereof); (B) the Leased Property relating to such obligation has been delivered, installed, is operating in a manner consistent with the manufacturer's intended use and has been inspected and finally accepted for all purposes by Lessee, and (C) Lessee has conducted such inspection and/or testing of the Leased Property relating to such obligation as it deems necessary and appropriate in order to determine the Leased Property's capability and functionality in order to accept such Leased Property; (ii) the Lessee has no notice of any vendor's, mechanic's or other liens or rights to liens, chattel mortgages, conditional sales contracts or security interest which should be satisfied or discharged before such payment is made; (iii) such requisition contains no item representing payment on account, or any retained percentages which Lessee is, at the date of such certificate, entitled to retain (except to the extent such amounts represent a reimbursement to Lessee); (iv) the Leased Property is insured in accordance with the Lease; (v) no Event of Default (nor any event which, with notice or lapse of time or both, would become an Event of Default) has occurred and is continuing and (vi) the representations, warranties and covenants of Lessee set forth in the Lease are true and correct as of the date hereof; and

2. Delivery to Lessor invoices (and proofs of payment of such invoices, if Lessee seeks reimbursement); bills of sale (if title to such Leased Property has passed to Lessee); a description, and serial and/or VIN number for each item and any additional documentation reasonably requested by Lessor;

3. Deposit to Escrow Account. Upon execution of the Lease and the satisfaction of any conditions specified in the Lease or otherwise, Lessor will cause the Acquisition Amount of \$373,498.00 to be deposited into the Escrow Account. Lessee agrees to pay any costs with respect to the Leased Property in excess of amounts available therefor in the Escrow Account and to pay delivery costs in excess of amounts available therefor in the Escrow Account; provided, however, that any amount required for either such purpose shall be payable solely from moneys that have been appropriated by Lessee for such purpose.

4. Excessive Escrow Account. Any funds remaining in the Escrow Account on or after the date on which Lessee executes the Delivery and Acceptance Certificate, or upon a termination of the Escrow Account as otherwise provided herein, shall be delivered by the Escrow Agent to Lessor, and Lessor shall apply such funds to amounts owed under the Lease.

5. Security Interest. The Escrow Agent and Lessee acknowledge and agree that the Escrow Account and all proceeds thereof are being held by Escrow Agent for disbursement or return as set forth herein. Lessee hereby grants to Lessor a first priority perfected security interest in the Escrow Account and all proceeds thereof, and all investments made with any amounts in the Escrow Account. If the Escrow Account or any part thereof, is converted to investments as set forth in this agreement, such investments shall be made in the name of Escrow Agent and the Escrow Agent hereby agrees to hold such investments as bailee for Lessor so that Lessor is deemed to have possession of such investments for the purpose of perfecting its security interest.

6. Control of Escrow Account. In order to perfect Lessor's security interest by means of control in (i) the Escrow Account established hereunder, (ii) all securities entitlements, investment property and other financial assets now or hereafter credited to the Escrow Account, (iii) all of Lessee's rights in respect of the Escrow Account, such securities entitlements, investment property and other financial assets, and (iv) all products, proceeds and revenues of and from any of the foregoing personal property (collectively, the "Collateral"), Lessor, Lessee and Escrow Agent further agree as follows:

(a) All terms used in this Section 6 which are defined in the Uniform Commercial Code of the State of Utah ("Commercial Code") but are not otherwise defined herein shall have the meanings assigned to such terms in the Commercial Code, as in effect on the date of this Agreement.

(b) Escrow Agent will comply with all entitlement orders originated by Lessor with respect to the Collateral, or any portion of the Collateral, without further consent by Lessee.

(c) Escrow Agent hereby represents and warrants (a) that the records of Escrow Agent show that Lessee is the sole owner of the Collateral, (b) that Escrow Agent has not been served with any notice of levy or received any notice of any security interest in or other claim to the Collateral, or any portion of the Collateral, other than Lessor's claim pursuant to this Agreement, and (c) that Escrow Agent is not presently obligated to accept any entitlement order from any person with respect to the Collateral, except for entitlement orders that Escrow Agent is obligated to accept from Lessor under this Agreement and entitlement orders that Escrow Agent, subject to the provisions of paragraph (e) below, is obligated to accept from Lessee.

(d) Without the prior written consent of Lessor, Escrow Agent will not enter into any agreement by which Escrow Agent agrees to comply with any entitlement order of any person other than Lessor or, subject to the provisions of paragraph (e) below, Lessee, with respect to any portion or all of the Collateral. Escrow Agent shall promptly notify Lessor if any person requests Escrow Agent to enter into any such agreement or otherwise asserts or seeks to assert a lien, encumbrance or adverse claim against any portion or all of the Collateral.

(e) Except as otherwise provided in this paragraph (e) and subject to Section 1(b) hereof, Escrow Agent may allow Lessee to effect sales, trades, transfers and exchanges of Collateral within the Escrow Account, but will not, without the prior written consent of Lessor, allow Lessee to withdraw any Collateral from the Escrow Account. Escrow Agent acknowledges that Lessor reserves the right, by delivery of written notice to Escrow Agent, to prohibit Lessee from effecting any withdrawals (including withdrawals of ordinary cash dividends and interest income), sales, trades, transfers or exchanges of any Collateral held in the Escrow Account. Further, Escrow Agent hereby agrees to comply with any and all written instructions delivered by Lessor to Escrow Agent (once it has had a reasonable opportunity to comply therewith) and has no obligation to, and will not, investigate the reason for any action taken by Lessor, the amount of any obligations of Lessee to Lessor, the validity of any of Lessor's claims against or agreements with Lessee, the existence of any defaults under such agreements, or any other matter.

(f) Lessee hereby irrevocably authorizes Escrow Agent to comply with all instructions and entitlement orders delivered by Lessor to Escrow Agent.

(g) Escrow Agent will not attempt to assert control, and does not claim and will not accept any security or other interest in, any part of the Collateral, and Escrow Agent will not exercise, enforce or attempt to enforce any right of setoff against the Collateral, or otherwise charge or deduct from the Collateral any amount whatsoever.

(h) Escrow Agent and Lessee hereby agree that any property held in the Escrow Account shall be treated as a financial asset under such section of the Commercial Code, notwithstanding any contrary provision of any other agreement to which Escrow Agent may be a party.

(i) Escrow Agent is hereby authorized and instructed, and hereby agrees, to send to Lessor at its address set forth in Section 7 below, concurrently with the

sending thereof to Lessee, duplicate copies of any and all monthly Escrow Account statements or reports issued or sent to Lessee with respect to the Escrow Account.

7. Information Required Under USA PATRIOT ACT. The parties acknowledge that in order to help the United States government fight the funding of terrorism and money laundering activities, pursuant to Federal regulations that became effective on October 1, 2003 (Section 326 of the USA PATRIOT Act) all financial institutions are required to obtain, verify, record and update information that identifies each person establishing a relationship or opening an account. The parties to this Agreement agree that they will provide to the Escrow Agent such information as it may request, from time to time, in order for the Escrow Agent to satisfy the requirements of the USA PATRIOT Act, including but not limited to the name, address, tax identification number and other information that will allow it to identify the individual or entity who is establishing the relationship or opening the account and may also ask for formation documents such as articles of incorporation or other identifying documents to be provided.

8. Fee Schedule; Initial Fee. [To be Provided by Escrow Agent]

9. Miscellaneous.

(a) Capitalized terms not otherwise defined herein shall have the meanings assigned to them in the Lease. This agreement may not be amended except in writing signed by all parties hereto. This agreement may be executed in one or more counterparts, each of which shall be deemed to be an original instrument and each shall have the force and effect of an original and all of which together constitute, and shall be deemed to constitute, one and the same instrument. Notices hereunder shall be made in writing and shall be deemed to have been duly given when personally delivered or when deposited in the mail, first class postage prepaid, or delivered to an express carrier, charges prepaid, or sent by facsimile with electronic confirmation, addressed to each party at its address below:

If to Lessor:                    ZIONS BANCORPORATION, N.A.  
    1 South Main Street 17<sup>th</sup> Floor  
    Salt Lake City, UT 84133  
    Attn: \_\_\_\_\_, Vice President  
    Zions Bank Division

If to Lessee:                    \_\_\_\_\_  
    \_\_\_\_\_  
    \_\_\_\_\_

If to Acquisition Fund Custodian: Zions Bank, a division of ZIONS BANCORPORATION, N.A. Corporate Trust Department 1 South Main Street Salt Lake City, UT 84037 Attn: Greg Cross, Vice President

(b) As required by the provisions of Arizona Revised Statutes Section 38-511, as amended, notice is hereby given that the District may, within three (3) years of the execution hereof, cancel this Agreement without penalty or further obligations, if any person significantly involved in initiating, negotiation, securing, drafting or creating this Agreement on behalf of the District is, at any time while this Agreement or any extension of this Agreement is in effect, an employee or agent of the Escrow Agent or a consultant to the Escrow Agent with respect to the subject matter of this Agreement. The cancellation shall be effective when written notice from the District is received by the Escrow Agent unless the notice specifies a later time.

In Witness Whereof, the parties have executed this Escrow Agreement as of the date first above written.

ZIONS BANCORPORATION, N.A. as Lessor

CITY OF SEDONA as Lessee

By: \_\_\_\_\_, Vice President, Zions Bank Division

By: \_\_\_\_\_ Cherie Wright, Financial Services Director

Zions Bank, a division of ZIONS BANCORPORATION, N.A. as Escrow Agent

By: \_\_\_\_\_, Vice President

**SCHEDULE 1**

**TO THE ESCROW AGREEMENT**

**FORM OF DISBURSEMENT REQUEST**

Re: Lease/Purchase Agreement, dated November 28, 2018 (the “*Lease*”), between ZIONS BANCORPORATION, N.A., as Lessor, and [Insert Lessee], as Lessee (Capitalized terms not otherwise defined herein shall have the meanings assigned to them in the Lease.)

In accordance with the terms of the Escrow Agreement, dated November 28, 2018 (the “*Escrow Agreement*”) by and among ZIONS BANCORPORATION, N.A., a national banking association (“*Lessor*”), City of Sedona (“*Lessee*”) and Zions Bank, a division of ZIONS BANCORPORATION, N.A., (the “*Escrow Agent*”), the undersigned hereby requests the Escrow Agent pay the following persons the following amounts from the Escrow Account created under the Escrow Agreement for the following purposes:

PAYEE’S NAME AND ADDRESS	INVOICE NUMBER	DOLLAR AMOUNT	PURPOSE (INCLUDE SERIAL AND/OR VIN NUMBER)

The undersigned hereby certifies as follows:

(i) The date on which “acceptance” occurred with respect to the portion of the Leased Property for which disbursement is hereby requested is \_\_\_\_\_, and such portion of Leased Property is hereby accepted by Lessee for all purposes of the Lease.

(ii) An obligation in the stated amount has been incurred by Lessee, and the same is a proper charge against the Escrow Account for costs relating to the Leased Property identified in the Lease, and has not been paid (or has been paid by Lessee and Lessee requests reimbursement thereof), and the Leased Property relating to such obligation has been delivered, installed, is operating in a manner consistent with the manufacturer's intended use and has been inspected and finally accepted for all purposes by Lessee. Lessee has conducted such inspection and/or

testing of the Leased Property relating to such obligation as it deems necessary and appropriate in order to determine the Leased Property's capability and functionality in order to accept such Leased Property. Attached hereto is the original invoice with respect to such obligation.

(iii) The undersigned, as Authorized Representative, has no notice of any vendor's, mechanic's or other liens or rights to liens, chattel mortgages, conditional sales contracts or security interest which should be satisfied or discharged before such payment is made.

(iv) This requisition contains no item representing payment on account, or any retained percentages which Lessee is, at the date hereof, entitled to retain (except to the extent such amounts represent a reimbursement to Lessee).

(v) The Leased Property is insured in accordance with the Lease.

(vi) No Event of Default, and no event which with notice or lapse of time, or both, would become an Event of Default, under the Lease has occurred and is continuing at the date hereof.

(vii) No Material Adverse Change in Lessee's financial condition shall have occurred since the date of the execution of the Lease.

(ix) The representations, warranties and covenants of Lessee set forth in the Lease are true and correct as of the date hereof.

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Authorized Representative

Disbursement of funds from the Escrow Account in accordance with the foregoing Disbursement Request hereby is authorized

ZIONS BANCORPORATION, N.A.,  
as Lessor under the Lease

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

RESOLUTION NO. 2018-\_\_

**A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF SEDONA, ARIZONA, APPROVING THE FORM AND AUTHORIZING THE MAYOR TO EXECUTE AND CAUSE THE DELIVERY OF AN INSTALLATION AGREEMENT, A LEASE/PURCHASE AGREEMENT, AN ESCROW AGREEMENT AND RELATED DOCUMENTS FOR THE LEASE/PURCHASE OF CERTAIN ENERGY CONSERVATION MEASURES WITHIN THE CITY OF SEDONA WITH AMOUNTS TO BE PAID BY THE CITY UNDER SUCH LEASE/PURCHASE TO FINANCE SUCH MEASURES; DELEGATING THE AUTHORITY TO APPROVE CERTAIN MATTERS WITH RESPECT TO THE INSTALLATION AGREEMENT, THE LEASE/PURCHASE AGREEMENT AND ESCROW AGREEMENT; AUTHORIZING THE APPOINTMENT OF AN ESCROW AGENT; DELEGATING THE AUTHORITY TO APPROVE, EXECUTE AND DELIVER THE INSTALLATION AGREEMENT, THE LEASE/PURCHASE AGREEMENT, THE ESCROW AGREEMENT AND RELATED DOCUMENTS; AND RATIFYING ALL ACTIONS TAKEN OR TO BE TAKEN TO FURTHER THIS RESOLUTION.**

WHEREAS, the City Council ("Council") of the City of Sedona, Arizona, an Arizona municipality and governmental entity ("City"), desires to enter into an installation agreement and a guaranteed savings agreement (collectively, the "Midstate Agreement"), each with Midstate Energy, L.L.C. ("Contractor") pursuant to A.R.S. § 34-105 and other relevant provisions of Arizona law in which the Contractor will design, install and service energy conservation measures to reduce the City's energy cost as described in the Installation Agreement, Guaranteed Service Agreement, and Investment Grade Audit attached hereto ("Project"); and

WHEREAS, the Contractor will guarantee the cost savings of the Project through the expected life of the Project and the cost savings; and

WHEREAS, the City has received an offer from Zions Bancorporation, N.A. to serve as lessor ("Lessor") in a Lease/Purchase Agreement ("Lease/Purchase") between the City and the Lessor, to finance the Project, and an Escrow Agreement between the City and Zions Bank, a division of Zions Bancorporation, N.A. ("Escrow Agent") to administer the proceeds of the Lease/Purchase Agreement; and

WHEREAS, within and by the parameters set forth in this Resolution, the Council shall authorize the execution and delivery of the Midstate Agreement, the Lease/Purchase Agreement and the Escrow Agreement;

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND THE COUNCIL OF THE CITY OF SEDONA, ARIZONA, that the City of Sedona, through its Mayor and Council, hereby approves the following on behalf of the City of Sedona, Arizona:

**Section 1. Authorization of Project.** This Council finds and determines that the financing of the Project under the Midstate Agreement through the Lease/Purchase Agreement is in furtherance of the purposes of the City and is in the public interest.

**Section 2. Authorization of Financing and City contribution.** This Council hereby authorizes the City to enter into a Lease/Purchase Agreement with the Lessor in an aggregate principal amount of \$371,998, plus the costs of issuance, to mature within twelve (12) years and bearing interest at a tax-exempt rate not to exceed 3.6%.

**Section 3. Subject to Annual Appropriation.** Payments pursuant to the

Lease/Purchase Agreement will not constitute a general obligation or debt of the City; nor does the obligation to make lease payments under the Lease/Purchase Agreement constitute a general obligation or debt of the City within the meaning of the Constitution of the State of Arizona, statutes thereof or otherwise. The Lease/Purchase Agreement and the obligation to make lease payments are subject to the annual approval and appropriation by the Council and may be payable from other available funds or sources of the City upon the determination, at the time of execution and delivery of the Lease/Purchase Agreement.

**Section 4. Use of Proceeds.** The net proceeds of the Lease/Purchase Agreement, after payment of the expenses of execution and delivery, shall be held by the Escrow Agent and used to pay the Contractor or its designee against invoices presented to the Escrow Agent.

**Section 5. Execution of Documents.**

- A. Midstate Agreement. The forms of the Midstate Agreement as presented to this Council is hereby approved and the Mayor or City Manager are hereby authorized to execute the Midstate Agreement on behalf of the City pursuant to the terms of this Authorizing Resolution. The Mayor or City Manager are authorized to complete the Midstate Agreement, including any attachments thereto. The execution and delivery of the Midstate Agreement by the Mayor or the City Manager shall be conclusive evidence of such completion and approval of the Midstate Agreement.
- B. Lease/Purchase Agreement and Escrow Agreement. The forms of the Lease/Purchase Agreement and Escrow Agreement as presented to this Council are hereby approved and the Mayor or the City Manger are authorized to execute and deliver the Lease/Purchase Agreement and Escrow Agreement, including any attachments thereto, on behalf of the City. The execution of the Lease/Purchase Agreement and Escrow Agreement by the Mayor or the City Manager shall be conclusive evidence of such completion and approval of the Lease/Purchase Agreement and Escrow Agreement.

**Section 6. Resolution of Contract.** This Resolution shall not be repealed while the Lease/Purchase Agreement is not fully satisfied.

**Section 7. Ratification of Actions.** All actions of the officers and agents of the City and this Council which conform to the purposes and intent of this Resolution and which further the actions contemplated by this Resolution, whether heretofore or hereafter taken, are hereby ratified, confirmed and approved. The proper officers and agents of the City and this Council are hereby authorized and directed to do all such acts and things and to execute and deliver all such documents on behalf of the City as may be necessary to carry out the terms and intent of this Resolution.

**Section 8. Severability.** If any section, paragraph, subdivision, sentence, clause or phrase of this Resolution is for any reason held to be illegal, invalid or unenforceable, such decision shall not affect the validity of the remaining portions of this Resolution. The Council hereby declares that it would have adopted this Resolution and each and every other section, paragraph, subdivision, sentence, clause or phrase hereof and authorized the execution and delivery of the Midstate Agreement and the Lease/Purchase Agreement pursuant hereto irrespective of the fact that any one or more sections, paragraphs, subdivisions, sentences, clauses or phrases of this Resolution may be held illegal, invalid or unenforceable.

PASSED AND ADOPTED by the Mayor and Council of the City of Sedona, Arizona  
this 11<sup>th</sup> day of December, 2018.

\_\_\_\_\_  
Sandra J. Moriarty, Mayor

ATTEST:

\_\_\_\_\_  
Susan L. Irvine, CMC, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Robert L. Pickels, Jr., City Attorney

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**CITY OF SEDONA  
ENERGY PROJECT  
PRESENTATION**

December 11, 2018

Today's

# AGENDA

## I. Midstate Energy

Who We Are

## II. Overview

Energy Performance Projects

## III. Energy Conservation Measures

Scope Review

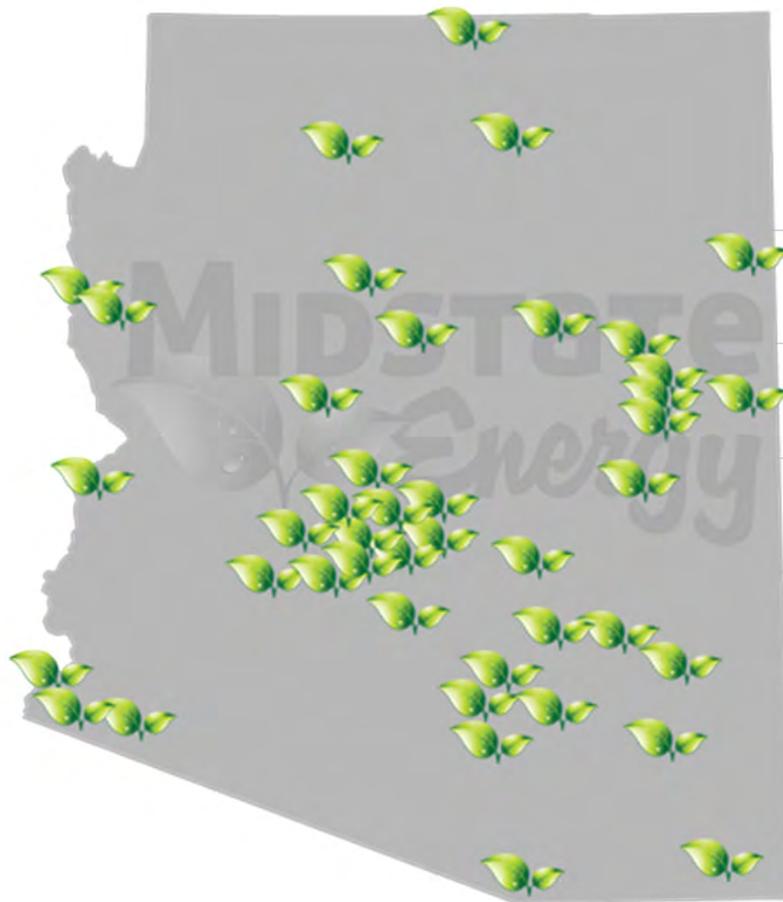
## IV. Financial Proforma

Cost & Savings

## V. Benefits

Benefits to City of Sedona & Next Steps

*The Strength in Our*  
**HISTORY**



**#1** *Energy Services Provider in Arizona*

**32** *Year History in Arizona*

**\$250** *Million in Energy Savings Achieved*

**485** *Individual Public Facilities Projects*

**3** *Arizona Offices – Phoenix & Tucson*

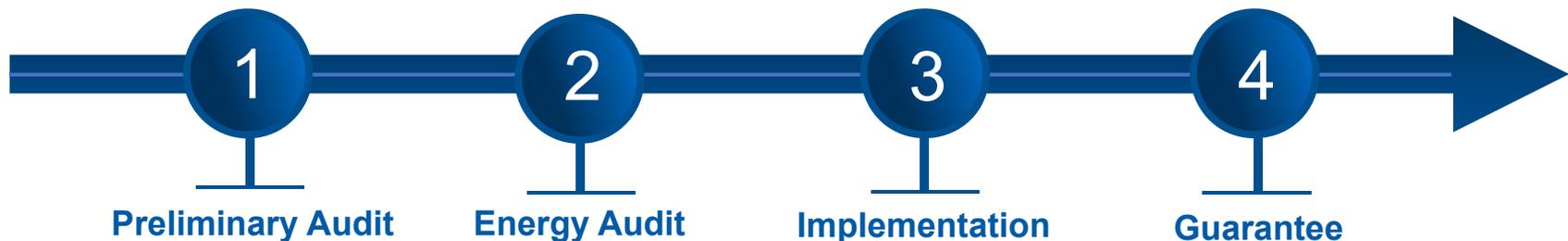
Energy

# PERFORMANCE PROJECT

**Simplicity:** Money saved on energy and operating costs can pay for building improvements.

**Guarantee:** If the project fails to reduce costs as guaranteed, Midstate pays the difference (per A.R.S 34-105).

**Goals:** Sustainability, Safety, Comfort and Energy Efficiency.



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*City of Sedona*

# Level Set

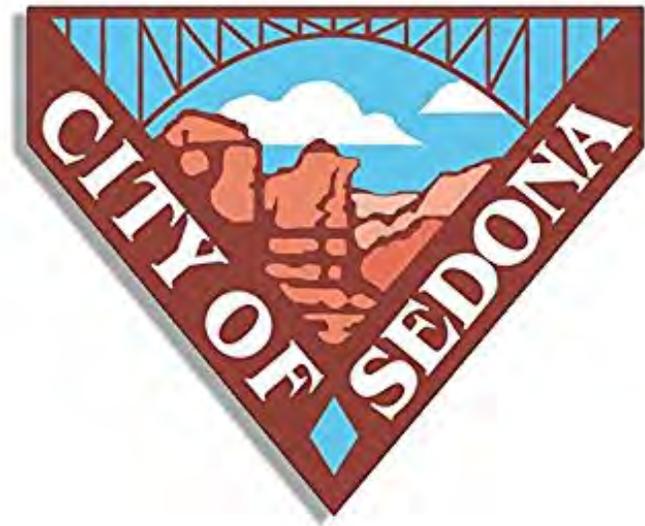
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## Road Traveled

- 1.) Audits Complete
- 2.) Utility Analysis Complete
- 3.) ECM Selection – Complete

## Further Investigation – Phase 2

- 1.) Parks & Recreation
- 2.) Waste Water Facilities
- 3.) Solar and Battery Storage



# LIGHTING SAVINGS

## Analysis

Lighting Spreadsheet



## Summary

**Interior:** Where applicable, existing T8 and T12 lighting would be retrofitted with new 10W LED lamps and LED drivers. Keyless fixtures would be re-lamped with 9.5W LED lamps. Evo-kits at City Hall.

**Exterior:** Where applicable, existing fixtures that are not currently LED will be replaced with new LED fixtures or retrofitted with LED lamps.



# WATER SAVINGS

## Summary

The buildings surveyed produced a wide range of flow for each fixture type. All fixtures were tested for actual flow rates, with an average Faucet flow rate of 1.6 gpm and average toilet flow rate of 4.1 gpm.

Retrofit existing plumbing system with upgraded fixtures, valves and drains to reduce the water required for proper flushing.



# WATER SAVINGS

Site/Bldg Name	Install 1.28 gpf HET Wall Hung Toilet China	Install 1.28 gpf HET Floor Mount Floor Discharge Toilet China	Install 1.28 gpf HET Floor Mount Floor Discharge ADA Toilet China	Install 1.0 gpf HET Floor Mount Floor Discharge Elongated Front Tank Toilet	Elongated Open Front Seat	Install 1.28 gpf HET Manual Toilet Piston Valve w/ 9" vBt	Raise vBt length to 9" to meet code requirements	Install 0.125 gpf HEU Retrofit Pint Urinal (21" to 24" Footprint)	Install 0.125 gpf HEU Manual Urinal Piston Valve w/ C9 vBt	Install 0.5 gpm Tamperproof Laminar Flow Control for Existing Lavatory Faucet w/ Thread Adapter	Install 1.0 gpm Tamperproof Laminar Flow Control for Existing Kitchen Faucet w/ Thread Adapter	Install 1.5 gpm Low-Flow Pressure-Compensating Handheld Showerheads
Wastewater Administration	2	0	0	0	2	2	0	0	0	2	3	1
Wastewater Operations	0	0	2	0	2	2	0	0	0	1	2	1
Parks & Recreation	0	0	0	2	2	0	0	0	0	2	2	0
Police Department	0	2	4	0	6	6	1	2	2	6	5	2
City Administration	0	0	0	3	3	0	0	0	0	3	3	0
Community Development	0	1	3	0	4	4	0	0	0	6	1	0
Courthouse	0	4	5	0	9	9	1	2	2	8	1	0
IT/Legal/Public Works	0	0	0	3	3	0	0	0	0	3	3	0
<b>TOTALS</b>	<b>2</b>	<b>7</b>	<b>14</b>	<b>8</b>	<b>31</b>	<b>23</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>31</b>	<b>20</b>	<b>4</b>



ECM

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# HVAC SAVINGS

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## Summary

The survey produced (10) existing HVAC systems, although well maintained the units are at the end of their useful life.

Remove and replace old equipment nearing the end of their useful life with New High Efficiency equipment. As specified, new equipment to be a minimum of 14 SEER, and have code compliant fresh air quantities.



*ECM*

# HVAC SAVINGS

ID	Location	Serial Number	Tons	Year
C-3	Bldg. 102	2G7363ADAAF130603199	5	2006
C-4	Bldg. 102	1X5643ADAAF159728281	5	1997
C-5	Bldg. 102	7323F410509298	5	2005
C-6	Bldg. 102	1X5643ADAAF159728269	5	1997
C-7	Bldg. 102	2G7361ADAAF130607223	3.5	2006
C-8	Bldg. 102	1X5639ADAAF449613676	4	1996
A-1	Bldg. 106	1X5643ADAAF139714332	5	1997
A-2	Bldg. 106	1X5643ADAAF139714338	5	1997
A-3	Bldg. 106	1X5643ADAAF449613461	5	1997
IT-2	Bldg. 108	1X5643ADAAF449613465	5	1996

# ENERGY MANAGEMENT SYSTEM

## Analysis

The current HVAC control is managed through typical programmable statistics that is supervised and maintained by the Sedona maintenance staff. There is currently no ability to make set-point or schedule changes from off-site.

## Summary

- Upgrade existing system to Web/Wifi based system
- Schedule Events
- Standardize Set Points
- Improve Energy Sequence of Operations



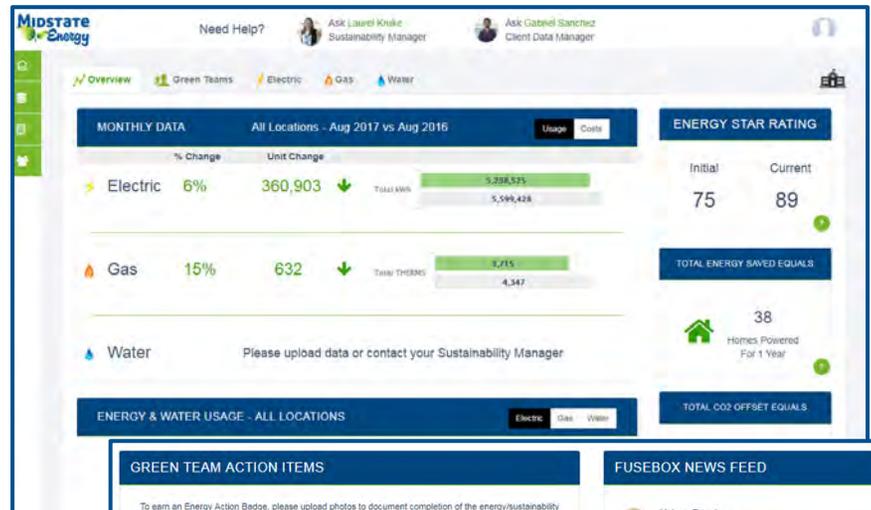
# DATA & SUSTAINABILITY MANAGEMENT

## Data Management

- Utility Tracking & Analysis
- Energy alerts sent to your phone or email

## Sustainability

- Assigned Sustainability Manager  
~ Energy Behavior Program



**GREEN TEAM ACTION ITEMS**

To earn an Energy Action Badge, please upload photos to document completion of the energy/sustainability actions.

- Energy Action 1:** Upload Image. Media production help to create energy tip video clips to show. Upload: JPG, JPEG, GIF, PNG. Max: 2MB Limit.
- Energy Action 2:** Upload Image. Green team members will learn how to set the "sleep settings" on. Upload: JPG, JPEG, GIF, PNG. Max: 2MB Limit.
- Energy Action 3:** Upload Image. Teachers with access to surge protectors will be asked to plug. Upload: JPG, JPEG, GIF, PNG. Max: 2MB Limit.
- Energy Action 4:** Upload Image. GT members will develop presentations/videos to then. Upload: JPG, JPEG, GIF, PNG. Max: 2MB Limit.
- Energy Action 5:** Upload Image. GT members will plant xeriscape adapted plants around campus in. Upload: JPG, JPEG, GIF, PNG. Max: 2MB Limit.

**FUSEBOX NEWS FEED**

- Krista Reed Liberty High School** (about 6 days ago): During our first meeting, we have decided to have an election. We have two students vying for Vice President, and we need to decide on a Secretary, Treasurer, Researcher, and Historian. The Researcher is responsible for - you guessed it - researching activities and ideas for us, such as trying to find environmentally-friendly paints for maintenance, arts, and theater to use. Our Historian will help the Secretary with taking minutes and logging what we are doing and when, taking photos to be sent to Yearbook, our morning news, and here on Fusebox, and to help me to write these Fusebox posts, too.
- Raymond Wilson Alta Loma Elementary School** (about 6 days ago): Our goal this year at Alta Loma is to reduce overall electricity use for the year by 5%.
- Krista Reed Liberty High School** (about 15 days ago): So apparently, if you register with the Crayola company on their website, they'll allow you to ship them (for free) any/all old dried-up markers to be recycled. They pay for the shipping (I'm guessing you can print a label from their website). They will take any markers, not just Crayola brand!
- Krista Reed Liberty High School** (about 15 days ago): At the Freshman Orientation, we got 19 signatures from new students to LHS who are interested in joining the Green Team!
- Diane Koons Oakwood Elementary School** (about 20 days ago): The goal for Oakwood is to create a club that enlists at least 10 students in grade levels 5th-8th, and to have our Energy Star Rating at 95 or increase it by the end of the school year.

#	ENERGY CONSERVATION MEASURE (ECM)	CALCULATION METHOD	WATER SAVINGS (kgal)	ENERGY SAVINGS (kWh)	ACTUAL ENERGY SAVINGS (\$)
1	Lighting Savings	Engineered Efficiency Analysis	0	101,027	\$11,113
2	Water Savings	Engineered Efficiency Analysis	888	1,777	\$5,597
3	HVAC Savings	Engineered Efficiency Analysis	0	141,818	\$15,600
4	Building Automation Savings	Engineered Efficiency Analysis	0	20,282	\$2,231
5	Data Management Savings	Engineered Efficiency Analysis	0	37,273	\$4,100
<b>TOTAL PROGRAM SAVINGS</b>			<b>888</b>	<b>302,177</b>	<b>\$38,641</b>

## **Project Overview**

**Cost: \$371,998**

**Interest Rate: 3.6%**

**Term: 12 Years**

**Annual Energy Savings: \$38,641**





### Financial Projections - City of Sedona

#### 12 Year Cash Flow

Total Project Cost	\$371,998
M&V Fee	\$3,500
Energy Savings	\$38,641
**Operational Savings**	\$1,500
**Potential Rebates & Incentives**	\$1,750
Finance Term	12.0 Yr.s
Interest Rate	3.60%
Inflation Factor	2.00%
<b>TOTAL GROSS SAVINGS</b>	<b>\$540,125</b>
<b>TOTAL NET SAVINGS</b>	<b>\$28,509</b>

Year	Annual Investment			Annual Savings			Financial Projection	
	Principal and Interest Payment	M&V Fee	Total Annual Cost	Annual Energy Savings	*Operational Savings*	*Potential Rebate & Incentives*	Total Annual Savings	Net Annual Savings
Implementation (Year)				\$0	\$0		\$0	\$0
1	\$35,140	\$3,500	\$38,640	\$38,641	\$1,500	\$1,750	\$41,891	\$3,251
2	\$35,843	\$3,570	\$39,413	\$39,414	\$1,530		\$40,944	\$1,531
3	\$36,560	\$3,641	\$40,201	\$40,202	\$1,561		\$41,763	\$1,561
4	\$37,291	\$3,714	\$41,005	\$41,006	\$1,592		\$42,598	\$1,593
5	\$38,037	\$3,789	\$41,826	\$41,826	\$1,624		\$43,450	\$1,624
6	\$38,798	\$3,864	\$42,662	\$42,663	\$1,656		\$44,319	\$1,657
7	\$39,573	\$3,942	\$43,515	\$43,516	\$1,689		\$45,205	\$1,691
8	\$40,365	\$4,020	\$44,385	\$44,386	\$1,723		\$46,109	\$1,724
9	\$41,172	\$4,101	\$45,273	\$45,274	\$1,757		\$47,032	\$1,759
10	\$41,996	\$4,183	\$46,179	\$46,180	\$1,793		\$47,972	\$1,793
11	\$41,176	\$4,266	\$45,442	\$47,103	\$1,828		\$48,932	\$3,489
12	\$38,723	\$4,352	\$43,075	\$48,045	\$1,865		\$49,910	\$6,836
<b>Totals</b>	<b>\$464,674</b>	<b>\$46,942</b>	<b>\$511,616</b>	<b>\$518,257</b>	<b>\$20,118</b>	<b>\$1,750</b>	<b>\$540,125</b>	<b>\$28,509</b>

Notes:

- 1 \*Operational Savings are above guaranteed savings agreement
- 2 \*Rebates and incentives are above guaranteed savings agreement
- 3 Sample Cash Flow does not include deferred interest or interest earned
- 4 Per A.R.S. 34-105 - Measurement and Verification is required for guaranteed savings

## Financing Overview

**Provider Chosen:** National Bank of AZ

**Interest Rate:** 3.6%

**Term:** 12 Years

**Solicitations:**

-National Bank of AZ – 3.6% and no pre-payment penalty

-BluePath Finance – 3.8%

-U.S. Bancorp – 3.83%

-Baystone Finance – No Bid - Due to size

# BENEFITS FOR CITY OF SEDONA



## Taking Action

Enhanced Sustainability Efforts/Energy Efficiency, Safety, and Comfort



## Costs

Decreased Operating and Maintenance Expenses



## Solutions

Flexible and Expandable Opportunities



## Ongoing Analysis

Measure and Verification Services



## Assurance

Guaranteed Savings



MIDSTATE  
Energy

Thank You!



**CITY COUNCIL  
AGENDA BILL**

**AB 2453  
December 11, 2018  
Regular Business**

**Agenda Item:** 8d

**Proposed Action & Subject:** Discussion/possible direction regarding a proposed two-day Council retreat agenda.

**Department** City Manager

**Time to Present** 5 minutes

**Total Time for Item** 10 minutes

**Other Council Meetings** None

**Exhibits** N/A

City Attorney Approval	Reviewed 12/4/18 RLP	<b>Expenditure Required</b>
		\$ Varies
City Manager's Recommendation	Discuss and provide direction on the agenda for a retreat session.	<b>Amount Budgeted</b>
		\$
		Account No. (Description)
		Finance <input checked="" type="checkbox"/> Approval

**SUMMARY STATEMENT**

**Background:** Most years, Council holds a one-day retreat session in January in advance of preparing next year's budget. This year, staff is proposing to hold our typical retreat session as well as a budget preparation meeting and a joint meeting with the Sedona Chamber of Commerce and Tourism Bureau over a two-day session.

The retreat is tentatively scheduled for January 15<sup>th</sup> and 16<sup>th</sup> at the Posse Grounds HUB from approximately 9:00 a.m. to 3:00 p.m. Coffee, light snacks, and lunch will be provided.

The tentative agenda is as follows:

January 15<sup>th</sup>

1. Review of financial position and budget process overview
2. Review of Community Plan progress
3. Review of current Council priorities
4. Discussion about future Council priorities

January 16<sup>th</sup>

1. Discuss proposed processes and procedure changes
2. Joint session with the Chamber of Commerce about future contract and work plans

**Community Plan Consistent:**  Yes -  No -  Not Applicable

**Board/Commission Recommendation:**  Applicable -  Not Applicable

**Alternative(s):** N/A

**MOTION**

**I move to:** for discussion and possible direction only.