

FINAL AGENDA

REGULAR COUNCIL MEETING
TUESDAY
JULY 2, 2013

COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
4:00 P.M. AND 6:00 P.M.

4:00 P.M. MEETING

Individual Items on the 4:00 p.m. meeting agenda may be postponed to 6:00 p.m. meeting.

1. CALL TO ORDER

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

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, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

MAYOR NABOURS

VICE MAYOR EVANS

COUNCILMEMBER BAROTZ

COUNCILMEMBER BREWSTER

COUNCILMEMBER ORAVITS

COUNCILMEMBER OVERTON

COUNCILMEMBER WOODSON

3. PLEDGE OF ALLEGIANCE AND MISSION STATEMENT

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life of its citizens.

4. APPROVAL OF MINUTES FROM PREVIOUS MEETINGS

- A. Consideration and Approval of Minutes: Special Council Meeting (Executive Session) of June 6, 2013; Special Council Meeting (Executive Session) of June 11, 2013; Joint Work Session of June 17, 2013; and the Regular Council Meeting of June 18, 2013.

RECOMMENDED ACTION:

Amend/approve the minutes of the Special Council Meeting (Executive Session) of June 6, 2013; Special Council Meeting (Executive Session) of June 11, 2013; Joint Work Session of June 17, 2013; and the Regular Council Meeting of June 18, 2013.

5. PUBLIC PARTICIPATION

Public Participation enables the public to address the Council about an item that is not on the agenda (or is listed under Possible Future Agenda Items). Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

6. PROCLAMATIONS AND RECOGNITIONS

None

7. APPOINTMENTS

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 City Council may vote to go into executive session, which will not be open to the public, for the purpose of discussing or considering employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee, or employee of any public body...., pursuant to A.R.S. §38-431.03(A)(1).

None

8. LIQUOR LICENSE PUBLIC HEARINGS

- A. Consideration and Action on Liquor License Application:** Danny Thomas, "The State Bar", 10 East Route 66, Series 07 (beer and wine bar), Person Transfer and Location Transfer.

RECOMMENDED ACTION:

- Open the public hearing.
- Receive citizen input.
- Close the public hearing.

The City Council has the option to:

- 1) Forward the application to the State with a recommendation for approval;
- 2) Forward the application to the State with no recommendation; or
- 3) Forward the application to the State with a recommendation for denial based on the testimony received at the public hearing and/or other factors.

9. CONSENT ITEMS

All matters under Consent Agenda are considered by the City Council to be routine and will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

A. Consideration of Purchase under the Strategic Alliance for Volume Expenditures (S.A.V.E.) Contract: Contract Employment Program for Retirees - Employee leaseback.**RECOMMENDED ACTION:**

Approve the purchase from Smart Works Plus for an annual amount up to \$800,000 plus applicable taxes.

B. Consideration and Approval of License Agreement: National Bank of Arizona License Agreement for temporary use of property for Aquaplex staff parking.**RECOMMENDED ACTION:**

Authorize License Agreement with National Bank of Arizona for temporary use of their property located east of the northeast corner of 4th Street and Route 66 for Aquaplex staff parking through September 30, 2013.

10. ROUTINE ITEMS**A. Consideration and Approval of Grant Application:** U.S. Department of Justice, FY2013 Edward Byrne Memorial Justice Assistance Grant in the amount of \$23,249 to pay for Police Staff Overtime and 14 ballistic body armor vests for Coconino County Sheriff's Department and authorizing the acceptance upon award of the grant agreement.**RECOMMENDED ACTION:**

Approve the submission of a grant application and authorize acceptance upon award for the U.S. Department of Justice, FY 2013 Edward Byrne Memorial Justice Assistance Grant (JAG) for an amount of \$23,249.

B. Consideration and Approval of an Intergovernmental Agreement: Between the City of Flagstaff and Coconino County (County) for submission of a grant application to the U.S. Department of Justice, FY 2013 Edward Byrne Memorial Justice Assistance (JAG) Grant.**RECOMMENDED ACTION:**

Approve the Intergovernmental Agreement with Coconino County for the FY 2013 Edward Byrne Memorial Justice Assistance Grant in an amount of \$6,975 for the purchase of 14 ballistic body armor vests.

C. Consideration and Adoption of Ordinance No. 2013-15: Authorizing the transfer of City-owned property to the State of Arizona in accordance with the Purchase Agreement for APN 116-13-001C (Tract No. 1 in Warranty Deed - full taking) and APN 116-13-001D (Tract No. 2 Parcel 1 and 2 - partial taking), located adjacent to existing Beulah Blvd. near Fort Tuthill.**RECOMMENDED ACTION:**

- 1) Read Ordinance No. 2013-15 by title only for the first time
- 2) City Clerk reads Ordinance No. 2013-15 by title only (if approved above)
- 3) Read Ordinance No. 2013-15 by title only for the final time on July 16, 2013
- 4) City Clerk reads Ordinance No. 2013-15 by title only (if approved above)
- 5) Adopt Ordinance No. 2013-15 on July 16, 2013

- D. Consideration and Adoption of Ordinance No. 2013-13:** AN ORDINANCE LEVYING UPON THE ASSESSED VALUATION OF THE PROPERTY WITHIN THE CITY OF FLAGSTAFF, ARIZONA, SUBJECT TO TAXATION A CERTAIN SUM UPON EACH ONE HUNDRED DOLLARS (\$100.00) OF VALUATION SUFFICIENT TO RAISE THE AMOUNT ESTIMATED TO BE REQUIRED IN THE ANNUAL BUDGET, LESS THE AMOUNT ESTIMATED TO BE RECEIVED FROM OTHER SOURCES OF REVENUE; PROVIDING FUNDS FOR VARIOUS BOND REDEMPTIONS, FOR THE PURPOSE OF PAYING INTEREST UPON BONDED INDEBTEDNESS AND PROVIDING FUNDS FOR GENERAL MUNICIPAL EXPENSES, ALL FOR THE FISCAL YEAR ENDING THE 30TH DAY OF JUNE, 2014.

RECOMMENDED ACTION:

- 1) Read Ordinance No. 2013-13 by title only for the final time on July 2, 2013
- 2) City Clerk reads Ordinance No. 2013-13 by title only for the final time (if approved above)
- 3) Adopt Ordinance No. 2013-13

RECESS

6:00 P.M. MEETING

RECONVENE

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

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, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

11. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

MAYOR NABOURS

VICE MAYOR EVANS

COUNCILMEMBER BAROTZ

COUNCILMEMBER BREWSTER

COUNCILMEMBER ORAVITS

COUNCILMEMBER OVERTON

COUNCILMEMBER WOODSON

12. CARRY OVER ITEMS FROM THE 4:00 P.M. AGENDA

13. PUBLIC HEARING ITEMS

None

14. REGULAR AGENDA

- A. Consideration and Approval of Street Closure(s):** Hopi Market Arts and Craft Festival.

RECOMMENDED ACTION:

Approve the street closure at Aspen Avenue between San Francisco Street and Leroux Street on 9/28/13 at 6 am through 9/29/13 at 6 pm.

- B. Consideration and Approval of Contract:** Fiscal year 2014 funding for Intake triage Services to include an Alcohol Stabilization Unit (ASU) at the Guidance Center.

RECOMMENDED ACTION:

Award the service contract to The Guidance Center, Inc. in the amount of \$74,250 for fiscal year 2014 to provide Intake Triage Services to include an Alcohol Stabilization Unit.

- C. Consideration and Adoption of Ordinance No. 2013-16:** An ordinance authorizing the sale of two access easements that encumber a portion of parcel 109-02-001P and benefit parcel 109-05-081A currently owned by Cedar West Capital LLC.

RECOMMENDED ACTION:

- 1) Read Ordinance No. 2013-16 by title only for the first time
- 2) City Clerk reads Ordinance No. 2013-16 by title only for the first time (if approved above)
- 3) Read Ordinance No. 2013-16 by title only for the final time on July 16, 2013
- 4) City Clerk reads Ordinance No. 2013-16 by title only for the final time (if approved above)
- 5) Adopt Ordinance No. 2013-16

- D. Consideration and Adoption of Ordinance No. 2013-12:** An ordinance of the City Council of the City of Flagstaff, Arizona, adopting the "2012 International Family of Codes, and the 2013 Amendments to City Code, Title 4, Building Regulations, and the ICC A117.1 Accessible and Usable Buildings and Facilities Standard, 2009 Edition" by reference and fixing the effective date thereof; repealing all sections of said code in conflict with this ordinance; preserving rights and duties that have already matured and proceedings that have already begun thereunder and providing penalties for the violation thereof.

RECOMMENDED ACTION:

- 1) Read Ordinance No. 2013-12 by title only for the final time
- 2) City Clerk reads Ordinance No. 2013-12 by title only (if approved above)
- 3) Adopt Ordinance No. 2013-12

15. DISCUSSION ITEMS

None

16. POSSIBLE FUTURE AGENDA ITEMS

Verbal comments from the public on any item under this section must be given during Public Participation (#5) near the beginning of the meeting. Written comments may be submitted to the City Clerk. After discussion and upon agreement of three members of the Council, an item will be moved to a regularly-scheduled Council meeting.

17. PUBLIC PARTICIPATION

18. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, REQUESTS FOR FUTURE AGENDA ITEMS

19. ADJOURNMENT

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on _____, at _____ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this ____ day of _____, 2013.

Elizabeth A. Burke, MMC, City Clerk

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Elizabeth A. Burke, City Clerk
Date: 06/28/2013
Meeting Date: 07/02/2013



TITLE

Consideration and Approval of Minutes: Special Council Meeting (Executive Session) of June 6, 2013; Special Council Meeting (Executive Session) of June 11, 2013; Joint Work Session of June 17, 2013; and the Regular Council Meeting of June 18, 2013.

RECOMMENDED ACTION:

Amend/approve the minutes of the Special Council Meeting (Executive Session) of June 6, 2013; Special Council Meeting (Executive Session) of June 11, 2013; Joint Work Session of June 17, 2013; and the Regular Council Meeting of June 18, 2013.

INFORMATION

Attached are copies of the minutes of the Special Council Meeting (Executive Session) of June 6, 2013; Special Council Meeting (Executive Session) of June 11, 2013; Joint Work Session of June 17, 2013; and the Regular Council Meeting of June 18, 2013, for amendment/approval.

Attachments: [06.06.2013.CCSM.Minutes](#)
[06.11.2013.CCSM.Minutes](#)
[06.17.2013.CCJWS.Minutes](#)
[06.18.2013.CCRM.Minutes](#)

MINUTES OF THE SPECIAL MEETING (EXECUTIVE SESSION) OF THE FLAGSTAFF CITY COUNCIL HELD ON THURSDAY, JUNE 6, 2013, IN THE STAFF CONFERENCE ROOM, SECOND FLOOR OF THE FLAGSTAFF CITY HALL, 211 WEST ASPEN, FLAGSTAFF, ARIZONA

1. Call to Order

Mayor Nabours called the Special Council Meeting to order at 8:39 a.m.

2. Roll Call

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

Present:

MAYOR NABOURS	
VICE MAYOR EVANS	COUNCILMEMBER ORAVITS
COUNCILMEMBER BAROTZ	COUNCILMEMBER OVERTON
COUNCILMEMBER BREWSTER	COUNCILMEMBER WOODSON

Others present: City Manager Kevin Burke and Consultant Robert Berg.

3. Recess into Executive Session.

Mayor Nabours moved to recess into Executive Session; seconded passed unanimously.

The City Council recessed into Executive Session at 8:39 a.m.

4. Executive Session:

A. Discussion or consideration of employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee or employee of any public body, except that, with the exception of salary discussions, an officer, appointee or employee may demand that the discussion or consideration occur at a public meeting, pursuant to ARS 38-431.03(A)(1).

i. City Attorney interviews

The City Council took a lunch break from 11:40 a.m. to 1:00 p.m., at which time interviews continued.

5. **Adjournment**

The City Council reconvened into Open Session at 4:30 p.m. at which time the Special Meeting adjourned and the Friday portion of the meeting was cancelled.

MAYOR

ATTEST:

CITY CLERK

MINUTES OF THE SPECIAL MEETING (EXECUTIVE SESSION) OF THE FLAGSTAFF CITY COUNCIL HELD ON TUESDAY, JUNE 11, 2013, IN THE STAFF CONFERENCE ROOM, SECOND FLOOR OF THE FLAGSTAFF CITY HALL, 211 WEST ASPEN, FLAGSTAFF, ARIZONA

1. Call to Order

Mayor Nabours called the meeting to order at 4:04 p.m.

2. Roll Call

Present:

Absent:

MAYOR NABOURS (left meeting during 4-B-i)
VICE MAYOR EVANS
COUNCILMEMBER BAROTZ
COUNCILMEMBER BREWSTER
COUNCILMEMBER ORAVITS
COUNCILMEMBER OVERTON
COUNCILMEMBER WOODSON

Others present: City Manager Kevin Burke; Interim City Attorney Michelle D'Andrea; Deputy City Manager Josh Copley; Deputy City Manager Jerene Watson; Deputy City Clerk Stacy Saltzburg.

3. Recess into Executive Session

Mayor Nabours moved to recess into Executive Session; seconded; passed unanimously. The Flagstaff City Council recessed into Executive Session at 4:04 p.m.

4. **EXECUTIVE SESSION:**

A. Discussion or consultation for legal advice with the attorney or attorneys of the public body, pursuant to ARS 38-431.03(A)(3).

i. University Terrace II Plat

B. Discussion or consultation with the attorneys of the public body in order to consider its position and instruct its attorneys regarding the public body's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation or in settlement discussions conducted in order to avoid or resolve litigation, pursuant to ARS 38-431.03(A)(4).

i. Airport Employees/Public Safety Personnel Retirement System

C. Discussion or consideration of employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee or employee of any public body, except that, with the exception of salary discussions, an officer, appointee or employee may demand that the discussion or consideration occur at a public meeting. The public body shall

provide the officer, appointee or employee with written notice of the executive session as is appropriate but not less than twenty-four hours for the officer, appointee or employee to determine whether the discussion or consideration should occur at a public meeting, pursuant to ARS 38-431.03(A)(1).

i. Annual Review of City Magistrates

D. Discussion or consideration of employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee or employee of any public body, except that, with the exception of salary discussions, an officer, appointee or employee may demand that the discussion or consideration occur at a public meeting. The public body shall provide the officer, appointee or employee with written notice of the executive session as is appropriate but not less than twenty-four hours for the officer, appointee or employee to determine whether the discussion or consideration should occur at a public meeting, pursuant to ARS 38-431.03(A)(1).

i. City Attorney Contract

5. ADJOURNMENT

The Flagstaff City Council reconvened into Open Session at 6:01 p.m. at which time the Special Meeting of June 11, 2013, adjourned.

MAYOR

ATTEST:

CITY CLERK

MINUTES

JOINT CITY/COUNTY WORK SESSION
MONDAY, JUNE 17, 2013
COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
4:00 P.M.

1. **CALL TO ORDER**

Vice Mayor Evans called the Flagstaff Work Session of June 17, 2013, to order at 4:01 p.m.

Notice of Option to Recess Into Executive Session

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, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. **ROLL CALL**

Councilmembers present:

Flagstaff City Council
VICE MAYOR EVANS
COUNCILMEMBER BAROTZ
COUNCILMEMBER BREWSTER
COUNCILMEMBER ORAVITS
COUNCILMEMBER WOODSON

Coconino County Board of Supervisors
SUPERVISOR BABBOTT
SUPERVISOR FOWLER
SUPERVISOR METZGER
SUPERVISOR RYAN

Others present: City Manager Kevin Burke, County Manager Mike Townsend, Interim City Attorney Michelle D'Andrea.

Councilmembers absent:

MAYOR NABOURS
COUNCILMEMBER OVERTON

CHAIRWOMAN ARCHULETA

3. **Public Participation (Non-Agenda Items Only):**

Public Participation enables the public to address the council about items that **are not** on the prepared agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment at the meeting is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes

per item to allow everyone to have an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

None.

4. Joint Recognition of Agencies Responding to Meteor Crater Incident.

Vice Mayor Evans presented Certificates of Appreciation to the responders of the Meteor Crater Incident in January 2013.

Certificates were presented to:

Coconino County Search and Rescue
Maricopa County Mountain Rescue Posse
Department of Public Safety Rangers
Guardian Air
Flagstaff Fire Department
Meteor Crater Enterprises
ACE HomeCo

5. Presentation on Walnut Canyon.

Coconino County Government Relations Manager Joanne Keene provided a brief history of the Walnut Canyon study and introduced Lisa Leap, Acting Superintendent for Flagstaff Area National Monuments, who provided a PowerPoint presentation on the Walnut Canyon Study which addressed:

- ▶ BACKGROUND
- ▶ WALNUT CANYON STUDY AREA
- ▶ ACT DIRECTS TO ASSESS
- ▶ SPECIAL STUDY PROCESS
- ▶ MARCH 24-25, 2011 WORKSHOP
- ▶ OPTIONS NOT CARRIED FORWARD
- ▶ CRITERIA FOR NEW NPS UNIT
- ▶ NPS BOUNDARY EXPANSION
- ▶ CRITERIA FOR BOUNDARY EXPANSION
- ▶ OPTIONS CARRIED FORWARD
- ▶ CONGRESSIONAL SPECIAL MANAGEMENT
- ▶ CONGRESSIONAL RESTRICTION
- ▶ AZ STATE TRUST LANDS SECTIONS 10, 20, 22, 28, and 30
- ▶ NEXT STEPS

Supervisor Metzger asked for Ms. Leap to explain the difference between what might be recommended as a result of the study and the National Park expansion of the boundary that would be a separate action.

Ms. Leap explained that expansion can take its own track; it has an entire internal process. Expansion is outside the scope of this study because NEPA process would have to be followed. At the beginning of the process it was determined that expansion would not be included due to the required NEPA process.

Supervisor Metzger clarified that during the meetings people did not fully understand that if the study goes forward as is, it would not eliminate the opportunity for park expansion. Park expansion is still available should it fulfill the NEPA and other requirements.

Councilmember Barotz noted that when the report is complete and it has gone through its entire process up to the secretaries, it is possible they could choose not to act on it. Ms. Leap agreed and suggested that it is up to the Park Service to keep pushing it forward and not to forget about it when it leaves the office.

Supervisor Babbott asked for clarification on when in the process options were eliminated. Ms. Leap responded it was at the 2011 workshop where the different options were shuffled around and eliminated.

Supervisor Babbott suggested that Proposition 119 represents some good opportunities moving forward to protect higher value properties and asked Ms. Leap if there was additional information about linking state and federal agencies to get the mechanics of how the exchanges of Proposition 119 make that work. Ms. Leap stated that she is not part of those discussions and has little information. She did indicate that there is some work going on down south in relation to this and will be following that process to see how things are done and what might be able to be done going forward.

Supervisor Metzger requested that a list of the most common questions and answers be created as a handout for reference by the public.

6. Update on *Flagstaff Regional Plan: Vision 2030*.

Comprehensive Planning Manager Kimberly Sharp addressed the Flagstaff City Council and the Coconino County Board of Supervisors to coordinate the Regional Plan review schedule. She said it is important to pin down the schedule for the public hearings as a legal notification has to be mailed to all residents.

Ms. Sharp outlined the outreach over the last 60 days. There were over 700 comments gathered during this time. It is important to note that every single group that was presented to brought up a single issue...they were concerned that City voters are able to vote on the plan in the spring but the County is not.

Councilmember Oravits asked for clarification on the City Council and Board of Supervisor voting process, whether the vote is done together or individually. Mr. Burke offered that the group has been leaning towards each entity voting on their own for the plan. However, the discussions are expected to be substantive and allow for the flushing things out if necessary and the proposal of changes. It still does remain a question though.

Councilmember Oravits expressed concern with County residents not being able to vote on this plan. There is an issue of representation that has to be considered, two jurisdictions are being blurred. There is discussion already in the next legislative session to make changes at the state level because of this complication.

Mr. Burke offered that the Council will have to call the question for the May ballot by December; any fix in the next legislative session is going to affect this process. Staff will

be proceeding under the assumption that there will be votes by both elected bodies and finally the City voters at the election.

Vice Mayor Evans stated that the two joint meetings with the City Council and Board of Supervisors will be the time to collectively address and discuss any concerns or changes.

Ms. Sharp indicated that if there are substantial changes to the plan it must go back to the County Planning and Zoning Commission. It is possible that this may happen and it will be important to have a Plan B in place because of the significant time impact.

Supervisor Babbott stated that the time to get the two chambers thinking about agreement is as soon as possible; a two-week window may not be enough time, if the adoption action is very close to the discussion there may not be enough time to make changes.

Vice Mayor Evans suggested that Plan B would be to put the Regional Plan on the November ballot instead of May.

Supervisor Ryan added that the important piece is having the City Council vote last. The City Council and Board of Supervisors are trying to offer as much opportunity possible for people to comment on the Regional Plan. The Board of Supervisor meetings are an opportunity for County residents to offer their thoughts, opinions, and ideas.

Mr. Burke offered that the Regional Plan University is a great opportunity to learn about the content of the plan. During the sessions staff reviews the content with elected and appointed officials to get a better idea on areas that may want to be discussed/debated at a future time.

Vice Mayor Evans stated that the university classes are open to the public as well.

7. Presentation on the Arizona Watchable Wildlife Experience.

Stormwater Manager David McKee introduced the Arizona Watchable Wildlife Experience (AWWE) team: Rick Miller, retired Wildlife Biologist; Tom Makin, President of Arizona Wildlife Federation; Shelly Shepard with Game and Fish; Jessica Gist with Game and Fish; Jean Tribianou with Coconino County; and Lauren with the Coconino National Forest.

Ms. Gist offered a PowerPoint presentation on the Arizona Watchable Wildlife Experience. She stated the AWWE sees Flagstaff as a model and hopes to move this program to other communities.

- ▶ A SHARED VISION
- ▶ AWWE
- ▶ THE BIG PICTURE
- ▶ WATCHABLE WILDLIFE NETWORK
- ▶ AZWATCHWILDLIFE.COM
- ▶ STRATEGIC PLAN

Mr. Makin continued the presentation.

- ▶ ECONOMIC BENEFITS OF AWWE
- ▶ DATA SOURCES

Ms. Gist continued the presentation.

- ▶ INTEGRATING WITH BUSINESS
- ▶ WHAT MAKES AWWE UNIQUE
- ▶ COMMUNITY ENGAGEMENT
- ▶ AWWE BENEFITS THE COMMUNITY IN MANY WAYS

City Council and Board of Supervisors expressed their support of the project.

Supervisor Metzger urged the group to keep in mind and consider the impacts of the increased visitation, good and bad; impacts such as road maintenance, illegal dumping and law enforcement.

Supervisor Babbott suggested an outreach campaign to the outdoor providers and retailers in the area.

Supervisor Ryan noted that ADA access information should be included in the materials and communicated to the public. Ms. Gist stated that the information provided on the site does offer information on access but the group is looking to reach out to impacted groups for input.

9. Update on Flagstaff Watershed Protection Project.

Mark Brehl, Wildland Fire Leadworker for the Flagstaff Fire Department, offered a PowerPoint update on the Flagstaff Watershed Protection Project (FWPP).

Mr. Brehl noted that the project is well on track and all partners are putting forth a great effort.

- ▶ STATUS UPDATE
- ▶ PROPOSED TIMELINE FOR PLANNED ACTIVITIES (MAP)
- ▶ PROPOSED TIMELINE FOR MORMON MOUNTAIN (MAP)
- ▶ ORGANIZATION
- ▶ DEMO UNITS
- ▶ NEPA TIMELINE – 2013
- ▶ NEPA TIMELINE – 2014
- ▶ KEY MESSAGES
- ▶ QUESTIONS

Mr. Burke reported that on Friday, June 14, 2013, the City was able to pick up the agreement from State Land and State Forestry allowing the commencement of planning and treatment on State Lands within the Watershed Protection Project area. Mr. Brehl added that the State is conducting a current Conditions Report to help prioritize treatment in those areas.

Supervisor Ryan offered the assumption that since the State uses a different process some of the State pieces of land would be first to move forward. Mr. Brehl responded

that the State could move forward first, but the process is new for them as well and the partners will be working together to work it all out.

Councilmember Woodson clarified that the work is being done separate to the 4FRI project, but also in conjunction with it. He inquired as to the progress of the work being done outside this project in relation to 4FRI.

Erin Phelps, United States Forest Service Project Manager for the FWPP, offered that 4FRI has compiled all of the received comments and they are still refining information for the final EIS. It is believed that the projects will be running concurrently in different areas. She has spoken to the 4FRI leadership about prioritizing treatment areas especially around Mormon Mountain since the FWPP is treating such a small portion of that area.

Councilmember Woodson asked for a five year outlook timeline for the 4FRI project to parallel with the FWPP

Supervisor Fowler asked for more information about the activities associated with the demo project. Mr. Brehl offered that the prescription for the area is going to be thinning focused on removing diseased, dead, or dying trees. The demos will be carried out on a much steeper slope to analyze how the equipment operates under the conditions. This will help to determine if the equipment is viable for other areas of the project with similar terrain. Different treatment methods are also being analyzed to determine effectiveness in the given area.

Supervisor Babbott requested that the elected officials be invited to these demonstrations. Mr. Brehl stated that the group had discussed having a tour during operations but it looks to be too dangerous. They are considering having a tour post treatment. Supervisor Babbott asked for this to be reconsidered in order for officials to have a good comprehension of the activities that are being carried out.

Supervisor Babbott asked for the acreage total of the Dry Lake Hills area that has gone through NEPA. Ms. Phelps stated that 1800 acres have gone through NEPA; some were identified as no treatment and hand thinning only due to the presence of spotted owls and rugged terrain.

Supervisor Metzger asked if the plan involved using the spider and the plans for dealing with the slash. Mr. Brehl stated that the spider is not a local piece of equipment so they are looking for local capacity for equipment that can handle the steep slopes. The intent is to try to figure out what can be done with the slash and material on steep slopes when it cannot be removed. It will be treated on site with the use of windrows and piling and different methods which would likely involve burning of the slash piles on site.

10. Informational Items To/From Chairman, Supervisors and County Manager/Mayor, Council and City Manager.

Supervisor Ryan thanked the City Council for meeting with the Board of Supervisors and appreciated that the meetings show different collaborative efforts in the community.

He also congratulated City Attorney Michelle D'Andrea on her appointment.

Supervisor Babbott encouraged the City Council and Board of Supervisors to look for efficiencies with resources such as shared facilities and opportunities to collaborate on planning and operations.

Supervisor Babbott also requested a freeform policy discussion on regional economic development opportunities.

Councilmember Barotz reported that last Friday, she and City staff members McKenzie Jones, Sustainability Specialist, and David McKee, Stormwater Manager, traveled to Phoenix to the Arizona Historic Preservation Conference to accept the Governors award. The grand award winner was Pinal County for the restoration of their courthouse. Councilmember Barotz was happy to represent the City and the County in accepting this award.

Councilmember Barotz reported that on June 29, 2013, there will be an event at Picture Canyon to celebrate the great milestone in City and County history. Remarks will start at 9:30 a.m. with a tour earlier.

Councilmember Brewster reported that Secretary of State Ken Bennett will be in Flagstaff on Thursday to talk about Arizona Economic Development.

Supervisor Fowler provided an update on the highway to Page. The N20 on Navajo Nation Coppermine Road had a ground breaking and is scheduled to be paved by August 19. In the meantime people are still traveling the 98 to get to Page.

Vice Mayor Evans shared her delight in having the Board of Supervisors here at the meeting and appreciated the opportunities for discussion.

11. **Adjournment**

The Flagstaff Joint City Council / County Board of Supervisors Meeting of June 17, 2013, adjourned at 5:58 p.m.

MAYOR

ATTEST:

CITY CLERK

MINUTES

REGULAR COUNCIL MEETING
TUESDAY, JUNE 18, 2013
COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
4:00 P.M. AND 6:00 P.M.

1. **CALL TO ORDER**

Mayor Nabours called the meeting to order at 4:02 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

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, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. **ROLL CALL**

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

Present:

MAYOR NABOURS	
VICE MAYOR EVANS	COUNCILMEMBER ORAVITS
COUNCILMEMBER BAROTZ	COUNCILMEMBER OVERTON (telephonically)
COUNCILMEMBER BREWSTER	COUNCILMEMBER WOODSON

Others present: City Manager Kevin Burke and City Attorney Michelle D'Andrea.

3. **PLEDGE OF ALLEGIANCE AND MISSION STATEMENT**

The Council and audience recited the Pledge of Allegiance, and Mayor Nabours read the City of Flagstaff's Mission Statement.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life of its citizens.

4. **APPROVAL OF MINUTES FROM PREVIOUS MEETINGS**

A. **Consideration and approval of minutes:** Flagstaff City Council Regular Meeting of June 4, 2013, and Work Session of June 11, 2013.

Councilmember Barotz suggested that on Page 8 of the June 11, 2013, minutes the word "events" be removed since the Council does not actually approve those.

Councilmember Woodson moved to approve [the minutes of the Flagstaff City Council Regular Meeting of June 4, 2013, and Work Session of June 11, 2013] as amended; seconded; passed unanimously.

5. **PUBLIC PARTICIPATION**

Public Participation enables the public to address the Council about an item that is not on the agenda (or is listed under Possible Future Agenda Items). Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

The following individuals addressed the Council regarding the need to further discuss the issue of transportation of uranium ore through the City:

- Alicyn Gitlin (Sierra Club)
- Dawn Dyer
- Arika Larson (Sierra Club)
- Joseph Hill
- Dr. Catherine Euler

6. **PROCLAMATIONS AND RECOGNITIONS**

None

7. **APPOINTMENTS**

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 City Council may vote to go into executive session, which will not be open to the public, for the purpose of discussing or considering employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee, or employee of any public body...., pursuant to A.R.S. §38-431.03(A)(1).

None

8. **LIQUOR LICENSE PUBLIC HEARINGS**

None

9. **CONSENT ITEMS**

All matters under Consent Agenda are considered by the City Council to be routine and will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

Items 9-A, 9-D, and 9-E were removed from the Consent Agenda.

Councilmember Brewster moved to approve Consent Items 9-B, 9-C and 9-F; seconded; passed unanimously.

A. **Consideration and Approval of Street Closure(s):** Hopi Market Arts and Craft Festival.

Special Events Supervisor Glorice Pavey reviewed the proposed street closure, noting that it was September 28-29, 2013, on Aspen between San Francisco and Leroux.

Jason Bird of the Hopi Tribes Economic Development Corporation presented a brief PowerPoint on what they were proposing, adding that the intent was to introduce tourism into Flagstaff and introduce it to the Hopi artisans that they have pulled from the Reservation. He said that this is their fourth year, and last year they held the market in Heritage Square with 52 vendors and an estimated 5,000 visitors. Now they are growing the event into two days and plan to have at least 120 vendors. He then reviewed their marketing efforts. Mr. Bird said that the market will be limited to Native American art. Most of them will be local, but they have been in contact with other tribes.

Nancy Wardell, owner of In Cahoots, said that it was great to have the Hopi Market in Heritage Square; however, she did not support the closure of the street due to the impact on her shop as well as others in the area.

Ms. Pavey reviewed the number of street closures in the downtown area. She said that she had recently sent out a CCR to Council, but there were seven recurring street closures throughout the year, and this year they had an additional one, the NACO Conference.

Discussion was also held on the fact that there were no formal criteria on who can apply for street closures and the process for their approval, other than that they are approved by Council. It was suggested that this be a separate discussion item in the future to determine a formal process.

After a lengthy discussion on possible solutions, it was suggested that the item be tabled for two weeks to allow time for staff to further review the site plan presented that day, and also to attempt to work with the business owners to find a solution to alleviate some of their concerns.

Mayor Nabours moved to postpone the application for two weeks; seconded; passed unanimously.

- B. **Consideration and Approval of Consulting Contract:** Allwyn Environmental, Inc., for Program Administrative Services for the FY2012 Brownfields Community-wide Assessment Grant.

MOTION: Approve and authorize the City Manager to execute the agreement.

Approved above

- C. **Consideration and Approval of Construction Contract:** Switzer Canyon Transmission Main Project.

MOTION:

- 1) Award the construction contract to Seller's and Sons, Inc. of Glendale, Arizona in the total award amount of \$980,483, which includes \$25,000 in contract allowance. The contract period is 120 calendar days; and
- 2) Authorize Change Order Authority to the City Manager in the amount of \$95,550 (10% of the bid contract amount, less contract allowance) for unanticipated additional costs; and
- 3) Authorize the City Manager to execute the necessary documents.

Approved above

- D. **Consideration and Approval of Payment:** Annual Computer Hardware and Software Maintenance and Support Services.

MOTION: Authorize the payment in the amount of \$601,015.15, plus applicable sales tax, to:

- 1) ERP - Financial Applications - \$151,000.00
- 2) SHI Software - Microsoft Enterprise Agreement - \$135,000.00
- 3) Intergraph Public Safety, Inc. - Maintain the map and corresponding DB for system - \$196,428.08
- 4) SIRSI - Online Library Catalog 4/1-3/31 - \$70,007.07
- 5) Additional charge for migrating data from branches into catalog - \$48,580.00

Councilmember Overton asked if the additional charge for migrating data from branches into catalog at the library was a one-time expense; Mr. Vagen replied that it was.

Mayor Nabours moved to approve (as presented above); seconded; passed unanimously.

- E. **Consideration of Appointment:** City Attorney.

Councilmember Brewster requested that this item be moved to the 6:00 p.m. portion of the meeting due to its importance.

- F. **Consideration and Approval of Agreement:** Participating Agreement Supplemental Project Agreement between City of Flagstaff and USDA, Forest

Service Coconino National Forest, for the Flagstaff Watershed Protection Project,
Fuels Reduction Demonstration Project

MOTION: Approve the Supplemental Project Agreement and authorize the City Manager to execute the necessary documents.

Approved above

10. **ROUTINE ITEMS**

- A. **Consideration and Approval of Agreement Amendment:** Joint Project Agreement 11-085 between the State of Arizona and the City of Flagstaff acting for and on behalf of the Flagstaff Metropolitan Planning Organization, Amendment 2 for Fiscal Year 2014.

FMPO Manager David Wessel reviewed the amendment, noting that this was a continuation of the agreement between the State and City for pass-through funding from the federal government. He said that this amendment will extend them for another year and since the last agreement there has been a new federal bill passed which has new planning requirements, including performance measurements, which they have already been doing.

Staff was asked if there were no dollar amounts specified. Mr. Wessel said that the work program itself identifies the dollars. They receive around \$260,000 a year through the MPO for their establishment and operation, and through construction of the Transportation Improvement Program they receive another roughly \$500,000, and additional safety funds of around \$600,000, as well as the NAIPTA transit funds.

Councilmember Woodson moved to authorize signature of JPA 11-805 Amendment 2; seconded; passed unanimously.

RECESS

The Regular Meeting of the Flagstaff City Council of June 18, 2013, recessed at 5:10 p.m.

6:00 P.M. MEETING

RECONVENE

Mayor Nabours reconvened the Regular Meeting of the Flagstaff City Council of June 18, 2013, at 6:05 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

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, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

11. **ROLL CALL**

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

Present:

MAYOR NABOURS
VICE MAYOR EVANS
COUNCILMEMBER BAROTZ
COUNCILMEMBER BREWSTER
COUNCILMEMBER ORAVITS
COUNCILMEMBER OVERTON (telephonically)
COUNCILMEMBER WOODSON

Others present: City Manager Kevin Burke and City Attorney Michelle D'Andrea.

12. **CARRY OVER ITEMS FROM THE 4:00 P.M. AGENDA**

Consideration of Appointment: City Attorney.

Mayor Nabours said that he was formally pleased to announce that they had selected Michelle D'Andrea as the City Attorney, should she accept the appointment. He said that they had a recruiter that solicited a number of possible candidates, and after interviewing six finalists, Ms. D'Andrea topped the group in every category. Ms. D'Andrea said that she was pleased to accept the appointment and Councilmembers congratulated her.

Councilmember Barotz moved to appoint Michelle D'Andrea as the City Attorney for the City of Flagstaff and approve the related contract; seconded; passed unanimously.

13. **PUBLIC HEARING ITEMS**

A. **Public Hearing For Proposed FY 2013 2014 Budget and Property Tax Levy.**

Councilmember Brewster moved to open the Public Hearing; seconded.

Finance Director Rick Tadder thanked Finance Manager Brandi Suda for her work and then reviewed a brief PowerPoint presentation, attached hereto and made a part hereof as Exhibit A.

Motion passed unanimously. There being no public comment, **Mayor Nabours moved to close the Public Hearing; seconded; passed unanimously.**

At this time (6:20 p.m.) the Council recessed the Regular Meeting and convened into a Special Meeting.

SPECIAL MEETING

The Special Meeting of June 18, 2013, convened at 6:20 p.m.

Consideration and Adoption of Resolution No. 2013-14: CONSIDERATION AND APPROVAL OF RESOLUTION NO. 2013-14 A RESOLUTION FOR THE ADOPTION OF THE BUDGET FOR FISCAL YEAR 2013-2014 AND PUBLIC HEARING FOR BUDGET AND LEVY.

Councilmember Brewster moved to read Resolution No. 2013-14 by title only; seconded; passed unanimously.

A RESOLUTION ADOPTING THE BUDGET FOR FISCAL YEAR 2013-2014

Councilmember Oravits said that it was a very detailed process, and he was glad they went through the extra meetings. He was looking forward to doing it again next time. He said that he was excited that they were able to increase street improvements three-fold, while preserving most of the services, including keeping the Library open until 9:00 p.m., and also keeping property taxes down.

Councilmember Brewster moved to adopt Resolution No. 2013-14; seconded; passed unanimously.

At this time (6:23 p.m.) the Special Meeting adjourned and the Regular Meeting of June 18, 2013, reconvened.

14. **REGULAR AGENDA**

- A. **Consideration and Adoption of Ordinance No. 2013-13:** AN ORDINANCE LEVYING UPON THE ASSESSED VALUATION OF THE PROPERTY WITHIN THE CITY OF FLAGSTAFF, ARIZONA, SUBJECT TO TAXATION A CERTAIN SUM UPON EACH ONE HUNDRED DOLLARS (\$100.00) OF VALUATION SUFFICIENT TO RAISE THE AMOUNT ESTIMATED TO BE REQUIRED IN THE ANNUAL BUDGET, LESS THE AMOUNT ESTIMATED TO BE RECEIVED FROM OTHER SOURCES OF REVENUE; PROVIDING FUNDS FOR VARIOUS BOND REDEMPTIONS, FOR THE PURPOSE OF PAYING INTEREST UPON BONDED INDEBTEDNESS AND PROVIDING FUNDS FOR GENERAL MUNICIPAL EXPENSES, ALL FOR THE FISCAL YEAR ENDING THE 30TH DAY OF JUNE, 2014.

Councilmember Barotz moved to read Ordinance No. 2013-13 by title only for the first time by title only; seconded; passed unanimously.

AN ORDINANCE LEVYING UPON THE ASSESSED VALUATION OF THE PROPERTY WITHIN THE CITY OF FLAGSTAFF, ARIZONA, SUBJECT TO TAXATION A CERTAIN SUM UPON EACH ONE HUNDRED DOLLARS (\$100.00) OF VALUATION SUFFICIENT TO RAISE THE AMOUNT ESTIMATED TO BE REQUIRED IN THE ANNUAL BUDGET, LESS THE AMOUNT ESTIMATED TO BE RECEIVED FROM OTHER SOURCES OF REVENUE; PROVIDING FUNDS FOR VARIOUS BOND REDEMPTIONS, FOR THE PURPOSE OF PAYING INTEREST UPON BONDED INDEBTEDNESS AND PROVIDING FUNDS FOR GENERAL MUNICIPAL EXPENSES, ALL FOR THE FISCAL YEAR ENDING THE 30TH DAY OF JUNE, 2014.

- B. **Consideration and Approval of Final Plat:** A request from Pete Reznick for final plat approval of the University Terrace Unit 2, a subdivision consisting of twenty (20) single-family lots on 10.55 acres located at 4015 South Holland Road in the R1, Residential Zoning District.

Planning Development Manager Elaine Averitt reviewed a PowerPoint presentation regarding this application, adding that the Planning and Zoning Commission had recommended approval with a number of conditions, all of which have been met.

Councilmember Oravits moved to approve [the final plat with the conditions outlined in the staff summary and its attachments, and authorizing the Mayor to sign both the plat and City/Subdivider Agreement when notified by staff that all conditions have been met and documents are ready for recording]; seconded; passed unanimously.

- C. **Consideration of Insurance Renewal:** Property/Casualty for Fiscal Year 2014.

Risk Manager Margaret Penado reviewed a PowerPoint presentation which addressed:

- PROCUREMENT PROCESS
- MARKET RESULTS
- MARKET CYCLE
- PREMIUMS VS. CLAIMS
- TOTAL INCURRED LOSSES
- PROPERTY INSURANCE COST PER MILLION POLICY
- LIABILITY INSURANCE
- AUTO LIABILITY
- TRAVELERS QUOTE OPTIONS

Councilmember Oravits moved to approve [the insurance renewal proposal from Willis of Arizona for the period July 1, 2013, to June 30, 2014, and authorize the City Manager to execute the necessary documents (SIR 75,000-\$1,256,093 premium plus 5% buffer for policy changes= \$1,318,898)]; seconded; passed unanimously.

- D. **Consideration of Insurance Renewal:** Workers' Compensation for fiscal year 2014.

Ms. Penado then reviewed a PowerPoint presentation regarding Workers' Compensation which addressed:

- HISTORICAL WORKERS COMPENSATION INSURANCE PLACEMENT
- MARKET RESPONSES FOR WORKERS COMPENSATION QUOTES 2013
- MARKET CYCLE
- LOSS RATIO
- COUNT BY POLICY YEAR
- CAUSES OF INJURY
- IMPROVEMENT WORK IN PROGRESS

Brief discussion was held on whether they should consider taking the \$1 million in premiums and self-insure. Ms. Penado replied that the value of buying insurance was that it provided some stability and a known value versus the risk.

Councilmember Barotz moved to accept the workers compensation renewal proposal offered by SCF Western for the period July 1, 2013, to June 30, 2014, and authorize payment of premiums for this policy period and authorize the City Manager to execute the necessary documents to accept the proposal; seconded; passed unanimously.

- E. **Consideration and Adoption of Resolution No. 2013-16:** A Resolution to Cover Volunteers of the City of Flagstaff under the City's Workers' Compensation Insurance.

Ms. Penado briefly reviewed the need for this resolution, as requested by the City's insurance carrier. It was noted that some of the volunteers in the Police Department were under the impression that they were going to be charged to cover the premium for this. Ms. Penado explained that was not the case; the City would incur those expenses and she would communicate that to the volunteers.

Councilmember Barotz moved to read Resolution No. 2013-16 by title only; seconded; passed unanimously.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, PURSUANT TO A.R.S. §23-901.06, ESTABLISHING A SALARY EQUIVALENT FOR PURPOSES OF COMPUTING WORKERS' COMPENSATION INSURANCE PREMIUM AND COMPENSATION BENEFITS FOR VOLUNTEERS, AND ESTABLISHING AN EFFECTIVE DATE

Councilmember Barotz moved to adopt Resolution No. 2013-16; seconded; passed unanimously.

15. **DISCUSSION ITEMS**

None

16. **POSSIBLE FUTURE AGENDA ITEMS**

Verbal comments from the public on any item under this section must be given during Public Participation (#5) near the beginning of the meeting. Written comments may be submitted to the City Clerk. After discussion and upon agreement of three members of the Council, an item will be moved to a regularly-scheduled Council meeting.

- A. **Request by Vice Mayor Evans for future discussion re transportation of uranium ore through Flagstaff.**

After brief discussion, it was agreed that this would move to a future agenda for a presentation by representatives of the mining companies and input from the state agency that is responsible for this type of activity, and allow for public dialogue.

Additionally, the City Attorney was asked for an opinion on whether they have any jurisdiction over a state/federal highway and transportation.

B. Request by Mayor Nabours for future discussion re repeal of property sales tax.

After brief discussion it was agreed that this issue would first be addressed through a CCR from staff.

17. PUBLIC PARTICIPATION

None

18. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, REQUESTS FOR FUTURE AGENDA ITEMS

Councilmember Barotz held up the recently-received Governor's Award for Heritage Preservation for Picture Canyon, which had been awarded to the City and County.

Vice Mayor Evans reported that she had attended the Pride Celebration downtown and several Councilmembers received recognition, as well as Gordon Watkins and Century Link.

She also indicated that she, as well as others, had received an envelope in the mail that did not have a return address regarding an upcoming public meeting on a development site plan, which had been sent by the developer. She was concerned that she had almost thrown it out, and asked staff to look into the matter and encourage developers to clearly identify such public notices.

Councilmember Brewster noted that Secretary of State Ken Bennett would be in town on Thursday talking about regional economic development. Additionally, on Friday there would be a public hearing in the Council Chambers, starting at 10:00 a.m., regarding State House Bill 2338.

Councilmember Oravits reported that he attended the 2013 Arizona State Chili Championship, and first place winners in Red and Green were both from Flagstaff, Paul Whitney and Pam Wright, respectively.

Councilmember Woodson reported that last weekend he attended an event at the Museum of Northern Arizona and there were people attending from all over the world.

Mr. Burke reminded Council and the public that there was a Water Policy Meeting scheduled for Thursday, June 20, 2013, from 4:00 p.m. to 8:00 p.m.

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Stacy Saltzburg, Deputy City Clerk
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Action on Liquor License Application: Danny Thomas, "The State Bar", 10 East Route 66, Series 07 (beer and wine bar), Person Transfer and Location Transfer.

RECOMMENDED ACTION:

- Open the public hearing.
- Receive citizen input.
- Close the public hearing.

The City Council has the option to:

- 1) Forward the application to the State with a recommendation for approval;
- 2) Forward the application to the State with no recommendation; or
- 3) Forward the application to the State with a recommendation for denial based on the testimony received at the public hearing and/or other factors.

Policy Decision or Reason for Action:

Series 07 licenses must be obtained through the person and location transfer of an existing license from another business. The license is being transferred from Amanda Wilson with Pasto, located in Flagstaff.

Financial Impact:

There is no budgetary impact to the City of Flagstaff as this is a recommendation to the State.

Connection to Council Goal:

Effective governance - regulatory action.

Has There Been Previous Council Decision on This:

Not applicable.

Options and Alternatives:

- 1) Table the item if additional information or time is needed.
- 2) Make no recommendation.
- 3) Forward the application to the State with a recommendation for approval.
- 4) Forward the application to the State with a recommendation for denial, stating the reasons for such recommendation.

Background/History:

An application for a person transfer and location transfer Series 07 liquor license was received from Danny Thomas for The State Bar, 10 East Route 66. The person transfer and location transfer are from Amanda Wilson for Pasto located at 19 E. Aspen, Flagstaff, Arizona. The liquor license purchased from Pasto was inactive at the time of sale.

A background investigation performed by Sgt. Matt Wright of the Flagstaff Police Department resulted in a recommendation for approval.

A background investigation performed by Greg Brooks, Code Compliance Officer II, resulted in no active code violations being reported.

Sales tax and licensing information was reviewed by Ranbir Cheema, Tax, Licensing & Revenue Manager, who stated that the business is in compliance with the tax and licensing requirements of the City.

Key Considerations:

Because the application is for both a person transfer and location transfer, consideration may be given to both the applicant's personal qualifications and the location.

A Series 07 beer and wine bar license allows a beer and wine bar retailer to sell and serve beer and wine, primarily by individual portions, to be consumed on the premises and in the original container for consumption on or off the premises.

The deadline for issuing a recommendation on this application is July 15, 2013.

For a Series 07 beer and wine bar license, the applicant is required to provide the distance between the applicant's business and the nearest church or school; the State does not require a geological map or list of licenses in the vicinity for any license series.

Expanded Financial Considerations:

This business will contribute to the tax base of the community. We are not aware of any other relevant considerations.

Community Benefits and Considerations:

The application was properly posted on May 31, 2013. No written protests have been received to date.

Expanded Options and Alternatives:

- (1) Table the item if additional information or time is needed.
- (2) Make no recommendation.
- (3) Forward the application to the State with a recommendation for approval.
- (4) Forward the application to the State with a recommendation for denial, stating the reasons for such recommendation.

Attachments: [State Bar - Letter to Applicant](#)
 [Hearing Procedures](#)
 [Series 07 Description](#)
 [State Bar - Section 13](#)
 [State Bar - PD Memo](#)
 [State Bar - Code Memo](#)

State Bar - Tax Memo

OFFICE OF THE CITY CLERK

June 19, 2013

The State Bar
Attn: Danny Thomas
P.O. Box 152
Flagstaff, AZ 86002

Dear Mr. Thomas:

Your application for a Series 07 person and location transfer liquor license for The State Bar at 10 E. Route 66, was posted on May 31, 2013. The City Council will consider the application at a public hearing during their regularly scheduled City Council Meeting on **Tuesday, July 2, 2013 which begins at 4:00 p.m.**

It is important that you or your representative attend this Council Meeting and be prepared to answer any questions that the City Council may have. Failure to be available for questions could result in a recommendation for denial of your application. We suggest that you contact your legal counsel or the Department of Liquor Licenses and Control at 602-542-5141 to determine the criteria for your license. To help you understand how the public hearing process will be conducted, we are enclosing a copy of the City's liquor license application hearing procedures.

The twenty-day posting period for your liquor license application will expire on June 20, 2013 and the application may be removed from the premises at that time.

If you have any questions, please feel free to call me at 928-213-2077.

Sincerely,

Stacy Saltzburg
Deputy City Clerk

Enclosure



City of Flagstaff

Liquor License Application Hearing Procedures

1. When the matter is reached at the Council meeting, the presiding officer will accept a motion to open the public hearing on the item.
2. The presiding officer will request that the Applicant come forward to address the Council regarding the application in a presentation not exceeding ten (10) minutes. Council may question the Applicant regarding the testimony or other evidence provided by the Applicant.
3. The presiding officer will then ask whether City staff have information to present to the Council regarding the application. Staff should come forward at this point and present information to the Council in a presentation not exceeding ten (10) minutes. Council may question City staff regarding the testimony or other evidence provided by City staff.
4. Other parties, if any, may then testify, limited to three (3) minutes per person. Council may question these parties regarding the testimony they present to the Council.
5. The Applicant may make a concise closing statement to the Council, limited to five (5) minutes. During this statement, Council may ask additional questions of the Applicant.
6. City staff may make a concise closing statement to the Council, limited to five (5) minutes. During this statement, Council may ask additional questions of City Staff.
7. By motion, Council will then close the public hearing.
8. By motion, the Council will then vote to forward the application to the State with a recommendation of approval, disapproval, or shall vote to forward with no recommendation.

License Types: Series 07 Beer and Wine Bar License

Transferable (From person to person and/or location to location within the same county only)

On & off-sale retail privileges

Note: Terms in **BOLD CAPITALS** are defined in the [glossary](#).

PURPOSE:

Allows a beer and wine bar retailer to sell and serve beer and wine, primarily by individual portions, to be consumed on the premises and in the original container for consumption on or off the premises.

ADDITIONAL RIGHTS AND RESPONSIBILITIES:

A retailer with off-sale privileges may deliver spirituous liquor off of the licensed premises in connection with a retail sale. Payment must be made no later than the time of **DELIVERY**. The retailer must complete a Department approved "Record of Delivery" form for each spirituous liquor retail delivery.

On any original applications, new managers and/or the person responsible for the day-to-day operations must attend a basic and management training class.

A licensee acting as a **RETAIL AGENT**, authorized to purchase and accept delivery of spirituous liquor by other licensees, must receive a certificate of registration from the Department.

A **PREGNANCY WARNING SIGN** for pregnant women consuming spirituous liquor must be posted within twenty (20) feet of the cash register or behind the bar.

A log must be kept by the licensee of all persons employed at the premises including each employee's name, date and place of birth, address and responsibilities.

Off-sale ("To Go") package sales can be made on the bar premises as long as the area of off-sale operation does not utilize a separate entrance and exit from the one provided for the bar.

Bar, beer and wine bar and restaurant licensees must pay an annual surcharge of \$20.00. The money collected from these licensees will be used by the Department for an auditor to review compliance by restaurants with the restaurant licensing provisions of ARS 4-205.02.

SECTION 12 Location to Location Transfer: (Bars and Liquor Stores ONLY)

APPLICANTS CANNOT OPERATE UNDER A LOCATION TRANSFER UNTIL IT IS APPROVED BY THE STATE 13 MAY 17 Lic. Lic. #1029

1. Current Business: Name Pasto
(Exactly as it appears on license) Address 19 E. Aspen Ave Flagstaff, Arizona 86001
2. New Business: Name The State Bar
(Physical Street Location) Address 10 East Route 66 Flagstaff, Arizona 86001
3. License Type: Beer & Wine Bar License Number: 07030020
4. If more than one license to be transferred: License Type: _____ License Number: _____
5. What date do you plan to move? Aug 2013 What date do you plan to open? August 2013

SECTION 13 Questions for all in-state applicants excluding those applying for government, hotel/motel, and restaurant licenses (series 5, 11, and 12):

A.R.S. § 4-207 (A) and (B) state that no retailer's license shall be issued for any premises which are at the time the license application is received by the director, within three hundred (300) horizontal feet of a church, within three hundred (300) horizontal feet of a public or private school building with kindergarten programs or grades one (1) through (12) or within three hundred (300) horizontal feet of a fenced recreational area adjacent to such school building. The above paragraph DOES NOT apply to:

- a) Restaurant license (§ 4-205.02)
- b) Hotel/motel license (§ 4-205.01)
- c) Government license (§ 4-205.03)
- d) Fenced playing area of a golf course (§ 4-207 (B)(5))

1. Distance to nearest school: App. 1,500 ft. Name of school San Francisco De Asis Cathlic School
Address 320 N Humphries St Flagstaff, Arizona 86001
City, State, Zip _____
2. Distance to nearest church: App. 1,500 ft. Name of church Church of the Nativity
Address 16 W. Cherry Flagstaff, Arizona 86001
City, State, Zip _____
3. I am the: Lessee Sublessee Owner Purchaser (of premises)
4. If the premises is leased give lessors: Name Ramsey's Properties LLC
Address 8290 E Arroyo Trail Flagstaff, Arizona 86004
City, State, Zip _____
- 4a. Monthly rental/lease rate \$ 2,434.11 What is the remaining length of the lease 4 yrs. 11 mos.
- 4b. What is the penalty if the lease is not fulfilled? \$ _____ or other Eviction
(give details - attach additional sheet if necessary)
5. What is the total **business** indebtedness for this license/location excluding the lease? \$ 0

Please list lenders you owe money to.

Last	First	Middle	Amount Owed	Mailing Address	City State	Zip

(ATTACH ADDITIONAL SHEET IF NECESSARY)

6. What type of business will this license be used for (be specific)? #7 Beer & Wine Bar

SECTION 13 - continued

7. Has a license or a transfer license for the premises on this application been denied by the state within the past one (1) year?
 YES NO If yes, attach explanation. *Liq. Lic. #1030*
8. Does any spirituous liquor manufacturer, wholesaler, or employee have any interest in your business? YES NO
9. Is the premises currently licensed with a liquor license? YES NO If yes, give license number and licensee's name:
 License # _____ (exactly as it appears on license) Name _____

SECTION 14 Restaurant or hotel/motel license applicants:

1. Is there an existing restaurant or hotel/motel liquor license at the proposed location? YES NO
 If yes, give the name of licensee, Agent or a company name:
 _____ and license #: _____
 Last First Middle
2. If the answer to Question 1 is YES, you may qualify for an Interim Permit to operate while your application is pending; consult A.R.S. § 4-203.01; and complete SECTION 5 of this application.
3. All restaurant and hotel/motel applicants must complete a Restaurant Operation Plan (Form LIC0114) provided by the Department of Liquor Licenses and Control.
4. As stated in A.R.S. § 4-205.02.G.2, a restaurant is an establishment which derives at least 40 percent of its gross revenue from the sale of food. Gross revenue is the revenue derived from all sales of food and spirituous liquor on the licensed premises. By applying for this hotel/motel restaurant license, I certify that I understand that I must maintain a minimum of 40 percent food sales based on these definitions and have included the Restaurant Hotel/Motel Records Required for Audit (form LIC 1013) with this application.

applicant's signature

As stated in A.R.S. § 4-205.02 (B), I understand it is my responsibility to contact the Department of Liquor Licenses and Control to schedule an inspection when all tables and chairs are on site, kitchen equipment, and, if applicable, patio barriers are in place on the licensed premises. With the exception of the patio barriers, these items are not required to be properly installed for this inspection. Failure to schedule an inspection will delay issuance of the license. If you are not ready for your inspection 90 days after filing your application, please request an extension in writing, specify why the extension is necessary, and the new inspection date you are requesting. To schedule your site inspection visit www.azliquor.gov and click on the "Information" tab.

applicants initials

SECTION 15 Diagram of Premises: (Blueprints not accepted, diagram must be on this form)

1. Check ALL boxes that apply to your business:
 Entrances/Exits Liquor storage areas Patio: Contiguous
 Service windows Drive-in windows Non Contiguous
2. Is your licensed premises currently closed due to construction, renovation, or redesign? YES NO
 If yes, what is your estimated opening date? August 2013
 _____ month/day/year
3. Restaurants and hotel/motel applicants are required to draw a detailed floor plan of the kitchen and dining areas including the locations of all kitchen equipment and dining furniture. Diagram paper is provided on page 7.
4. The diagram (a detailed floor plan) you provide is required to disclose only the area(s) where spiritous liquor is to be sold, served, consumed, dispensed, possessed, or stored on the premises unless it is a restaurant (see #3 above).
5. Provide the square footage or outside dimensions of the licensed premises. Please do not include non-licensed premises, such as parking lots, living quarters, etc.

As stated in A.R.S. § 4-207.01(B), I understand it is my responsibility to notify the Department of Liquor Licenses and Control when there are changes to boundaries, entrances, exits, added or deleted doors, windows or service windows, or increase or decrease to the square footage after submitting this initial drawing.

[Signature]

applicants initials

MEMORANDUM

Memo # 13-063-01

TO: Chief Kevin Treadway

FROM: Sgt. M. Wright

DATE: June 7, 2013

RE: Series 7 Liquor License –Person and Location Transfer-Application for “The State Bar”

On June 7, 2013, I initiated an investigation into a series 7 (beer and wine) liquor license person and location transfer application filed by Danny Thomas (agent), and Brian Webb (Controlling Person/Manager). Brian Webb currently owns the business called “The State Bar” which is under renovation. The opening date of The State Bar is unknown. The State Bar is located at 10 E. Route 66 in downtown Flagstaff. Brian Webb purchased the series 7 license # 07030020 from Amanda Wilson the owner of Pasto.

Pasto is located at 19 E. Aspen in downtown Flagstaff. Pasto is currently operating with series 12 liquor license. The series 7 license Amanda sold to Brian Webb is a “quota” license so it can be sold on the open market as long as the new owners operate the license within Coconino County.

I spoke with Agent Danny Thomas who stated the liquor license was purchased so they can serve beer and wine. Danny stated Brian Webb plans to operate the business in which he will primarily sell Arizona brewed beers and wine. The State Bar is located more than 300 feet from the nearest school or church.

I conducted a local records query and public access check on Danny Thomas and Brian Webb. No derogatory records were found. Brian Webb has completed the liquor class provided by the Department of Liquor Licenses and Control and provided proof. No liquor violations could be located for Brian Webb.

At this time the Flagstaff Police Department makes a recommendation for approval.



Planning and Development Services Memorandum

June 18, 2013

TO: Stacy Saltzburg, Deputy City Clerk

THROUGH: Roger Eastman, AICP, Comprehensive Planning and Code Administrator

FROM: Gregory Brooks, Code Compliance Officer II

RE: Application for Liquor License #07030020
10 E. Rt. 66, Flagstaff, Arizona 86004
Assessor's Parcel Number 100-20-007
Danny Thomas on behalf of The State Bar

A handwritten signature in black ink, appearing to read "Roger Eastman".

This application is a request for a Series 07(Beer and Wine Bar Only) person and location transfer liquor license from Danny Thomas on behalf of The State Bar, located in the Central Business (CB) Zone. This district allows for bars.

There are no active zoning code violations associated with Danny Thomas or The State Bar at this time.

This liquor license is recommended for approval.

Memo

To: Stacy Saltzberg, Deputy City Clerk

From: Ranbir Cheema - Tax, Licensing & Revenue Manager

Date: June 17, 2013

Re: Series 07 Liquor License – Person and Location Transfer – The State Bar

BWKW LLC DBA The State Bar does not plan to open until August, 2013. They are currently in process of remodeling the building. Their decision to open this business would be based on approval of the liquor license. If approved, they plan to comply with all requirements of the City Sale Tax Section. At this time, I do not have a reason to hold up this liquor license approval.

/liquor licenses/The State Bar.doc

CITY OF FLAGSTAFF
STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From: April Moyer, Administrative Specialist
Submitted For: Shannon Anderson, Human Resources Manager
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration of Purchase under the Strategic Alliance for Volume Expenditures (S.A.V.E.)

Contract: Contract Employment Program for Retirees - Employee leaseback.

RECOMMENDED ACTION:

Approve the purchase from Smart Works Plus for an annual amount up to \$800,000 plus applicable taxes.

Policy Decision or Reason for Action:

The City Human Resources Division currently utilizes a Mesa Public Schools contract #29-42MP through Strategic Alliance for Volume Expenditures (S.A.V.E.) to purchase phased retirement services as part of a contract employment program offered to many cities and state agencies throughout Arizona. Mesa recently did another RFP and so a new contract needs to be considered for approval.

Financial Impact:

Smartworks Plus charges a lease fee of 4% of the exiting employee's salary and the City reimburses the applicable taxes which are the employer related expenses such as Social Security, FICA, Medicare, Unemployment and Workers Compensation.

Since beginning to use the phased retirement system in 2011, the City has seen savings of 40% (\$461,638.32) for the nine leased employees utilizing the program, due to reductions in the employee's salary, FICA, Medicare, Unemployment and Workers' Compensation expenses and the elimination of group insurance and ASRS contributions. Leased employees are compensated at 75% of their exiting salary, sick leave, a reduced number of vacation days and pay for all holidays. These savings remain in each division's budget to offset the exiting employee's retirement payout first and then may be used for other budgetary expenses.

Connection to Council Goal:

Effective governance.

Has There Been Previous Council Decision on This:

On April 20, 2010 Council approved the purchase from Smart Works Plus for an annual amount up to \$800,000 plus applicable taxes, under S.A.V.E.

Options and Alternatives:

1. Award the contract for phased retirement services through a contract employment program for retirees.
2. Do not award the contract for phased retirement services through a contract employment program for retirees.
3. Conduct our own formal solicitation process in lieu of utilizing Mesa Public Schools cooperative purchasing agreement through S.A.V.E.

Background/History:

The City of Flagstaff has a number of employees eligible for retirement and many of these employees have been with the organization for a significant length of time. Thus, the Human Resources division has been utilizing the Smart Works Phased Retirement Program as a tool for succession planning within the municipal organization.

As employees begin to retire the phased retirement program provides an additional time frame after retirement to transfer knowledge to other employees within the municipal organization and/or for the employee to finalize any mission-critical projects. Many times the transfer of knowledge does not occur prior to retirement because the employee's retirement may have come earlier than expected or the employee has been too busy with day-to-day operations to focus on the transfer of knowledge. If the retirement was earlier than expected, this time may also be used to conduct recruitment efforts. An amount of time dedicated to the transfer of knowledge is incredibly important to the success of the newly appointed employee fulfilling the role, the municipal organization and the community.

Smart Works Plus provides phased retirement services to cities and state agencies throughout Arizona. This concept allows retirement-eligible staff to retire from the Arizona State Retirement System (ASRS) and return as a leased employee to their same position in the City or one for which they are qualified. This opportunity is available under current ASRS Return to Work rules.

All employees eligible for normal retirement with ASRS and demonstrating above-average performance would be eligible for the phased retirement program. The employee would complete a request form documenting what knowledge would be shared with other employees and/or what critical projects would be completed within the contract period. There must be a recommendation from the Supervisor and an agreement between the Supervisor, Division Director, Deputy City Manager and the employee regarding the critical projects or succession steps that will be completed.

The contract period for the leased employee ranges from three month to a year with the ability to extend for a maximum of one more year. Some reasons why a division may request an extension could be the recruitment process was not successful, changes in the budget situation, or a project has experienced unexpected and uncontrollable delays. To date, no leased employees have exceeded a one year contract. A contract period of up to one year provides the municipal organization with a reasonable amount of time to complete the transfer of knowledge and/or complete critical projects without interfering with another employee's ability to advance in their career. The phased retirement program promotes succession and transfer of knowledge, which benefits the newly appointed employee.

Phased retirement is a work-for-pay program and retains those positions for which the City cannot afford to lose. A program like this provides capacity within a limited budget and retains institutional knowledge and skill critical to the success of the City. It is a 'win-win' for the City of Flagstaff, the employees and the community.

Key Considerations:

The phase retirement program provides the City with another tool to provide succession planning. The program allows for a period of time specific to the transfer of knowledge and completion of mission critical projects. Both of these things are important to the success of newly appointed employees, the municipal organization and the community.

The phased retirement program will also reduce personnel costs associated with salary and employee related expenses, while still providing an incentive to employees who are eligible to retire.

The phased retirement program also enhances the benefits for employees who participate in the Arizona State Retirement System similar to the DROP program for Public Safety Personnel Retirement System employees.

Community Benefits and Considerations:

The community benefits from the transfer of institutional knowledge and the completion of critical projects. The phased retirement program provides valuable transition time, so the City may retain the exiting employee's knowledge and expertise through transferring this information to another employee within the municipal organization. Utilizing the exiting employee's knowledge and expertise to finalize critical projects also provides a positive benefit to the community.

Community Involvement:

Not applicable

Attachments: Service Agreement
 Exhibit Samples

SERVICE AGREEMENT

This SERVICE AGREEMENT (this "Agreement") is entered into as of this 2nd day of July, 2013 between smartschoolsplus, inc, an Arizona corporation, d/b/a smartworksplus ("Provider"), and City of Flagstaff ("Entity").

RECITALS

- A. Provider is a corporation engaged in the business of providing professional services, including employee staffing services, to governmental entities;
- B. Provider's employees include qualified full-time classified and exempt employees in good standing;
- C. Entity is a governmental entity within the State of Arizona that requires the services of qualified full-time classified and exempt employees in good standing.
- D. Entity is authorized to enter into this Agreement pursuant to [insert authority for Entity to hire its own employees] Arizona Revised Statute (A.R.S.) § 9-274(A) (1) and (2) and Article One, Section 3 of the Charter of the City of Flagstaff.
- E. City desires to obtain services, as more fully described in Exhibit A, attached hereto ("Services") from Provider and Provider is willing to provide Services to City upon the terms and conditions contained in this Agreement, pursuant to RFP #14-06MP and the associated contract issued by the Strategic Alliance for Volume Expenditures (SAVE) available to District/State Entities.

AGREEMENTS

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and intending to be legally bound, Provider and Entity agree as follows:

- 1. Services. Provider shall provide the Services set forth in this Agreement and in the Scope of Services attached as Exhibit A (collectively, "Services").
- 2. Provider Employees.
 - A. Employment Agreement. Provider shall enter, or has previously entered, into employment agreements ("Employment Agreements"), substantially in the form of Exhibit B, attached hereto, with qualified full-time classified and exempt employees in good standing (collectively, "Provider Employees") to provide Services required by Entity. A roster of Provider Employees, and their daily pay rates, are set forth in Exhibit C. A copy of each Employment Agreement shall be provided to Entity before the Provider Employee reports to work for the Entity. Provider shall (i) take steps to assure that each Provider Employee performs in accordance with his or her Employment Agreement, and (ii) provide general direction, supervision and control of each Provider Employee in the performance of his or her duties, as more fully described in the Scope of Services.
 - B. Payroll. Provider, and not Entity, shall be solely responsible for administrative employment matters regarding Provider Employees including, but not limited to, all payroll and payroll income tax withholding matters, payment of workers' compensation premiums and funding of appropriate fringe benefit programs. Provider agrees to hold harmless Entity for failure to remit to the appropriate governmental authority any and all taxes, assessments or governmental charges in connection with its employment of Provider Employees. Entity shall immediately forward to Provider any garnishment orders, involuntary deduction orders, notices of IRS liens and other forms of legal process received by Entity affecting payment of wages to Provider Employees and shall cooperate with Provider in responding thereto.

C. Health and Safety. Provider shall, and shall require Provider's Employees to, comply with all health and safety laws, regulations, ordinances, directives and rules imposed by controlling federal, state or local governments, and shall immediately report all work-related accidents involving the Provider Employee within 24 hours to Entity. Provider shall provide where necessary, and shall require that all Provider Employees use, personal protective equipment as required by federal, state or local law, regulation, ordinance, directive or rule.

D. Compensation of Provider Employees. Provider shall pay Provider Employees in compliance with applicable wage and hour laws including, but not limited to, the Fair Labor Standards Act ("FLSA") and Arizona Labor Code. Provider shall maintain complete and accurate records of all wages paid to a Provider Employee assigned to provide services to Entity. Provider shall be exclusively responsible for, and shall comply with, applicable law governing the reporting and payment of wages, payroll-related taxes and unemployment taxes attributable to wages paid to Provider Employees assigned to provide services to Entity.

E. Legal Arizona Worker's Act. Provider, and not Entity, shall be responsible for compliance with the Legal Arizona Worker's Act (2007), as amended from time to time. Compliance shall include, but not be limited to, verification of employment eligibility for all new employees through the E-Verify program, as defined in A.R.S. § 23-211.

F. Non-Compliance. Entity shall provide the Provider with written notification regarding alleged non-compliance. Non-compliance includes not satisfactorily meeting the requirements outlined in the Agreement, substandard job performance and failure to satisfactorily comply with any rules, guidelines, policies, procedures or regulations promulgated by Provider or Entity. Provider and Provider Employee may have ten (10) days following the receipt of such written notification to cure non-compliance before termination of the Agreement.

G. Termination. Provider or Entity may terminate this Agreement, with respect to any or all of the Provider Employees, without cause or justification of any kind, by providing the other party with written notice of such termination at least 30 days prior to the effective date of termination. Entity and Provider shall each have the right to immediately terminate the service of, and therefore cease to have any obligation with respect to, any particular Provider Employee, upon written notice to the other (or its successor in interest) upon the occurrence of any of the following:

(1) if the Provider Employee: (i) embezzles, steals or misappropriates funds or property of Entity or Provider or defrauds Entity or Provider; (ii) is convicted of a felony or a misdemeanor involving moral turpitude; (iii) has a necessary license or certification revoked or suspended; or (iv) commits an act or omission which constitutes unprofessional conduct or which adversely affects the reputation of Entity or Provider;

(2) the death of the Provider Employee occurring any time during the term of this Agreement, in which event this Agreement (as it relates to that employee) shall terminate as of his or her date of death;

(3) the permanent disability of the Provider Employee occurring at any time during the term of this Agreement. For purposes of the foregoing, a Provider Employee shall be deemed to be permanently disabled if, by reason of any physical or mental condition, the Provider Employee is unable to substantially perform his duties hereunder during either (i) any continuous period of 30 days, in which event this Agreement shall terminate as of the first day following the end of such 30-day period, or (ii) an aggregate of 45 days within a 12-month period, in which event this Agreement shall terminate as of the first day following the 45th such day; (iii) an aggregate of 25 days within a 6-month period, in which event this Agreement shall terminate as of the first day following the 25th such day; (iv) an aggregate of 17 days within a 3-month period, in which event this Agreement shall terminate as of the first day following the 17th such day;

(4) in the event that Provider sells or disposes of all or substantially all of its assets or permanently discontinues operating its business;

(5) in the event that a Provider Employee is unwilling, unable or fails to satisfactorily comply with any rules, guidelines, policies, procedures or regulations promulgated by Provider or Entity for the conduct of Provider Employees during the term of the Provider Employee's Employment Agreement; or

(6) if it is later discovered that a Provider Employee has made any material misrepresentations or has failed to provide any material information in connection with the application for employment that was previously submitted to Provider or with the information furnished to Entity concerning the qualifications of the Provider Employee.

3. Compensation. Entity agrees to compensate Provider for work performed, and reimbursable expenses incurred in the performance thereof, by Provider Employees in accordance with the compensation schedule attached hereto as Exhibit D. Provider shall invoice Entity monthly; invoices shall be due and payable within 15 days after receipt by Entity. The parties acknowledge and agree that Provider Employees shall receive wages solely from Provider. Entity shall not pay any Provider Employee in cash or by any other means for any services rendered by such Provider Employee pursuant to his or her Employment Agreement. Any individual whom Entity pays directly for any services rendered shall not be considered a Provider Employee as to any services for which Entity provides compensation.

4. Responsibilities of Entity. In addition to its payment, and other obligations set forth in this Agreement, Entity shall have the following responsibilities:

A. Supervision; Reporting. Entity shall provide daily monitoring of the Provider Employees and shall report to Provider on an annual basis regarding the Provider Employees' performance of their respective duties.

B. Safety Obligations. Entity shall take steps to assure a safe workplace for Provider Employees, shall supply documentation related to safety activities as prescribed by law (e.g., safety meeting, training, maintaining OSHA log), shall include Provider Employees in any specific safety training that Entity offers or requires for its own personnel in the same or similar positions, and shall inform Provider of any necessary protective equipment that Provider Employees must use in the performance of services for Entity. Provider or its workers' compensation carrier has the right to inspect Entity's premises and operation, but is not obligated to conduct any inspections. Provider reserves the right to audit safety activities. Provider or its insurer shall give reports to Entity on the conditions found at Entity's worksites. Neither Provider's insurer nor Provider warrants the result of the inspections or the absence thereof, or that the operations or premises are in compliance with any laws, regulations, codes or standards.

5. Term. The term of this Agreement shall commence as of July 1, 2013 and shall end on June 30, 2014, unless earlier terminated pursuant to the provisions hereof, and may be renewed annually for four additional fiscal years unless terminated pursuant to the provisions hereof. Entity acknowledges and agrees that prior to any renewal; the Exhibits will be adjusted to account for changes in the duties, responsibilities and wages for Provider Employees. Provider shall provide revised copies of the Exhibits to Entity at least thirty (30) days prior to the end of the then-current term.

6. Insurance.

A. Worker's Compensation.

(1) Except as otherwise provided in this Agreement, Provider shall be considered the "employer" of all Provider Employees for the purposes of providing workers' compensation insurance within the meaning of A.R.S. § 23-901. Provider shall provide workers' compensation and employer's liability insurance in accordance with the statutory requirement of the State of Arizona, including Employer's Liability insurance with limits of liability of not less than \$500,000 for each accident and \$500,000 for bodily injury or disease. The workers' compensation policy shall be endorsed to include the Alternate Employer Endorsement and shall include a waiver of subrogation in favor of Entity from the workers' compensation insurer. Provider shall, upon Entity's request, upon termination of this Agreement, provide to Entity records regarding the loss experience for workers' compensation insurance provided to Provider Employees pursuant to this Agreement.

(2) Entity and Provider understand, agree and acknowledge that no individual shall be covered by Provider's workers' compensation insurance, or be issued a payroll check unless prior to commencing work for Entity that individual satisfies the following requirements: (a) is employed by Provider in Arizona to work in Arizona; (b) is performing Services for Entity pursuant to this Agreement; (c) is listed on Provider's roster of Provider Employees in Exhibit C; (d) has completed Provider's required enrollment forms and, where applicable, is certified or licensed as required by law for the position in which employed by Provider; (e) has completed necessary criminal background checks, including fingerprinting; (f) has entered into an Employment Agreement with Provider; (g) has provided all data required by Provider for payroll processing and workers' compensation coverage; and (h) has been entered onto Provider's payroll system.

(3) Entity understands, agrees and acknowledges that the workers' compensation insurance that Provider shall provide under this Agreement shall only cover individuals who are listed on Provider's roster of Provider Employees in Exhibit C, and shall not cover other individuals who might perform services for Entity, whether as employees, independent contractors or otherwise. Entity agrees to provide workers' compensation insurance or maintain a program of approved self-insurance covering Entity's own employees.

B. Other Insurance.

Provider shall procure and maintain insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the Services by Provider and by Provider Employees.

MINIMUM SCOPE AND LIMITS OF INSURANCE: Provider shall provide coverage with limits of liability not less than those stated below.

(a) Commercial General Liability – Occurrence Form

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

General Aggregate	\$ 2,000,000
Products – Completed Operations Aggregate	\$ 1,000,000
Personal and Advertising Injury	\$ 1,000,000
Blanket Contractual Liability – Written and Oral	\$ 1,000,000
Fire Legal Liability	\$ 50,000
Each Occurrence	\$ 1,000,000

(b) Automobile Liability

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

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

(c) Professional Liability (Errors and Omissions Liability)

Each Claim \$1,000,000

Annual Aggregate \$2,000,000

(d) Provider shall provide unemployment insurance coverage to the extent required by law.

Entity shall be added as an additional insured to the CGL policy. The CGL Policy, Automobile Liability Policy and Professional Liability Policy shall each be primary and payable prior to any payment under any other insurance or self-insurance provided or maintained by the Entity, and shall be written to provide that each policy may not be canceled without thirty (30) days prior written notice to Entity.

7. Independent Contractor. The relationship created by this Agreement shall be deemed and construed to be, and shall be, that of principal and independent contractor. Provider has no authority to enter into any contract or incur any liability on behalf of Entity. Provider's employees are not intended to be and shall not be considered employees of Entity. Except as otherwise provided in this Agreement, Provider retains full control over the employment, direction, supervision, compensation, discipline and discharge of all persons performing Services under this Agreement.

8. Non-Exclusive Use. Provider acknowledges and agrees that Entity may enter into agreements with other provider organizations to supply services to Entity and that Provider is not the exclusive organization with which Entity may contract to provide services.

9. Notice. All notices, requests, demands and other communications required or permitted under this Agreement shall be in writing and shall be deemed to have been duly given, made and received when hand delivered to the party addressed or upon the date noted upon the receipt for registered or certified mail, first class postage prepaid, return receipt requested, addressed as set forth below:

If to Provider: smartworksplus
P.O. Box 11618
Tempe, AZ 85284-0027

With a copy to: Perkins Coie Brown & Bain P.A.
2901 N. Central Ave., Suite 2000
Phoenix, AZ 85012
Attention: Judith K. Weiss, Esq.

If to Entity: City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001

With a copy to: City Attorney
City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001

Either party may alter the address or addresses to which communications or copies are to be sent to such party by giving notice of such change of address in conformity with the provisions of this Section 9.

10. Binding Nature of Agreement; Assignment and Nominee. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors and assigns.

11. Entire Agreement. This Agreement constitutes the entire understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, inducements and conditions expressed or implied, oral or written, of any nature whatsoever with respect to the subject matter hereof. This Agreement may not be modified or amended other than by a writing signed by both parties.

12. Waiver. The failure or delay on the part of any party to exercise any right, remedy, power or privilege under this Agreement shall not operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, power or privilege preclude any other or further exercise of the same or of any other right, remedy, power or privilege, nor shall any waiver of any right, remedy, power or privilege with respect to any occurrence be construed as a waiver of such rights, remedies, powers or privileges with respect to any other occurrence.

13. Costs and Expenses. Each party hereto shall bear its own costs, including attorneys' fees and accounting fees, incurred in connection with the negotiation, drafting and consummation of this Agreement and the transactions contemplated hereby, and all matters incident thereto.

14. Headings. All sections and descriptive headings of sections and subsections in this Agreement are inserted for convenience only and shall not affect the construction or interpretation hereof.

15. Construction; Interpretation. This Agreement is intended to express the mutual intent of the parties hereto and thereto, and irrespective of the identity of the party preparing any such document, no rule of strict construction shall be applied against any party. In this Agreement, the singular includes the plural, and the plural the singular; words imparting either gender include the other gender; references to "writing" include printing, typing, lithography and other means of reproducing words in a tangible visible form; the words "including," "includes" and "include" shall be deemed to be followed by the words "but not limited to." The term "person" shall include an individual, corporation, joint venture, partnership, trust, estate, association, governmental entity or any other entity.

16. Exhibits and Recitals. All Exhibits referred to herein and the Recitals made and stated hereinabove are hereby incorporated by reference into, and made a part of, this Agreement.

17. Materiality. All covenants, agreements, representations and warranties made herein shall be deemed to be material and to have been relied on by the parties in entering into this Agreement and shall survive the execution and delivery of this Agreement.

18. Governing Law; Forum; Venue. This Agreement is executed and delivered in the State of Arizona, and the substantive laws of the State of Arizona (without reference to choice of law principles) shall govern its interpretation and enforcement. Any action brought to interpret or enforce any provisions of this Agreement, or otherwise relating to or arising from this Agreement, shall be commenced and maintained (i) if applicable, in accordance with the procedures established by the Entity for the resolution of contracts claims and controversies, or, if such procedures are not applicable, then (ii) in a federal, state or local court located within Coconino County, Arizona.

19. Knowing Covenants. The parties hereby represent to each other that the covenants and agreements provided for in this Agreement have been knowingly and voluntarily granted after thorough consultation with counsel as to the binding effect thereof. Based upon consultation with counsel, the

parties hereby represent and warrant to each other that this Agreement is binding and enforceable in accordance with its terms.

20. Indemnification. Provider shall indemnify, defend and hold harmless Entity, its mayor and council members, officers, directors, employees, insurers, indemnitors and agents (hereinafter referred to as "Indemnitee") for, from and against all suits, claims, actions, liabilities, damages, losses, expenses and debt, including court costs, attorneys' fees, and costs of claim processing, investigation and litigation (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property, or any other claim or loss of any kind incurred by Indemnitees or any of them arising from, attributable to or caused or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Provider or any of its owners, officers, directors, shareholders, or agents) or any Provider Employee in the performance of or related to the performance of the duties of Provider or of any Provider Employee as described in the Employment Agreement (including, but not limited to injuries to Provider Employees that may or may not be covered by workers compensation insurance). This indemnity includes any claim or amount arising out of or recovered under Workers' Compensation Law or arising out of failure of such Provider or Provider Employee 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 Indemnitees shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitees, be indemnified by Provider from and against any and all claims. It is agreed that Provider shall be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. Provider shall waive all rights of subrogation against the Indemnitees and each of them for losses arising from the work performed by Provider or by any Provider Employee for the Entity.

21. Conflict of Interest. The parties expressly acknowledge that Entity has the option of canceling this contract within three years from the date of execution without any further penalty or obligation pursuant to A.R.S. § 38-511 if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of Entity is at any time during the term or any extension thereof, an employee or agent of Provider or a consultant to Provider. Provider acknowledges the potential for a current Entity employee to become a Provider Employee and recognizes the applicability of A.R.S. § 38-511.

22. Scrutinized Business Operations. Pursuant to A.R.S. Sections 35-391.06 and 35-393.06, the Provider certifies that it does not have a scrutinized business operation in Sudan or Iran. For the purpose of this Section, the term "scrutinized business operation" shall have the meaning set forth in Sections 35-391.06 or 35-393.06 as the case may be. If the Entity determines that the Provider submitted a false certification the Entity may impose remedies as provided by law including cancellation or termination of this Agreement.

[Signature page to follow]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and date first above written and effective as of the date hereinabove stated.

"Provider"

smartschoolsplus, inc.
an Arizona corporation, d/b/a smartworksplus

"Entity"

City of Flagstaff

By: Sandra McClelland
Its: President

By: Jerry Nabours
Its: Mayor

EXHIBIT A

Scope of Services

The following Services shall be performed by smartschoolsplus, inc. [d/b/a smartworksplus] in fulfillment of its obligations under the terms of the Agreement.

1. Provider shall recruit, hire, train, evaluate and supervise Provider Employees who are professionally and technically qualified to perform the duties of full-time classified and exempt employees and shall discipline and terminate Provider Employees, as appropriate, including the following:

a. maintaining a recruiting and hiring program that is in compliance with federal and state laws, rules and regulations, equal opportunity and anti-discrimination policies applicable to, and restricting, the hiring and selection process, including, but not limited to, Title VII of the Civil Rights Act of 1964 ("Title VII"), the Americans With Disabilities Act ("ADA"), the Age Discrimination in Employment Act ("ADEA"), the Fair Credit Reporting Act ("FCRA") and the Arizona Employment Protection Act ("AEPA");

b. maintaining a system of statewide personal background checks on all Provider Employees provided to Entity to include statewide criminal background check and fingerprinting. Provider shall ensure that all Provider Employees possess all licenses, certifications and qualifications necessary to enable them to perform their assignments and that Provider Employees have satisfied any legal prerequisites to the performance of their assignments;

c. maintaining a system of performance evaluation in accordance with the Entity's evaluation standards supplemented by Provider standards for each Provider Employee, and provides copies of completed evaluations to Entity;

d. maintaining a program of supervision that enforces the policies and procedures of Entity. In order to maintain the program, Provider shall designate one or more on-site staff as the supervisor and/or Provider contact who shall be responsible for addressing and responding to Provider Employees. The designated on-site supervisor and/or Provider contact shall be trained by Provider in regard to: (i) applicable workers' compensation laws; (ii) applicable equal employment opportunity laws, regulations and policies, including reporting procedures; and (iii) workplace violence prevention, including the detection of early warning signs of violence and the proper reporting of threats and acts of violence. The supervisor and/or Provider contact shall promptly notify Entity of any human-resource-type issue raised by a Provider Employee that may affect Entity, such as threats of violence, harassment, discrimination or retaliation;

e. providing each Provider Employee information regarding his or her obligation to comply with all of Entity's safety, drug/alcohol, work policies, anti-harassment, anti-discrimination and anti-retaliation policies. Provider shall establish a complaint and/or reporting procedure for violations of policies and instruct Provider Employees on the use of the procedure. Provider shall obtain written acknowledgement from the Provider Employee that he or she has read, understood and agrees to abide by those policies and procedures;

f. providing annual harassment, discrimination, retaliation training for all Provider Employees, or ensure Provider Employees participate in similar training provided by Entity. Provider shall maintain a record of all such training; and

g. preparing and distributing an Employee Handbook to Provider Employees that identifies and explains Provider's policies and procedures that are to be followed during the course of the Provider Employees' employment with Provider.

2. Provider shall inform the Provider Employee in writing that he or she is employed by Provider, not Entity.

3. Provider shall inform the Provider Employee in writing that job related illness/injury reports are to be made to the supervisor or Provider contact and provide information on where and how reports are to be made to Provider contact.

4. Provider shall notify Provider Employees in writing that the only benefits they shall receive shall be from Provider, and that they are not entitled to any benefits from Entity.

5. Provider shall be responsible for the quality, adequacy and safety of the Services provided by Provider Employees pursuant to this Agreement, and the acts, errors or omissions of Provider Employees at all times.

EXHIBIT B

Form of Employment Agreement

See Exhibit B Sample

EXHIBIT C

Roster of Provider Employees and Fee Schedule

The Roster is maintained by Human Resources and approved by the City Manager.

See Exhibit C Sample

EXHIBIT D

Provider Compensation Schedule

Compensation: Provider compensation is computed based on the number of days Provider Employees work during a designated month, multiplied by their Daily Rate of Pay set forth in Exhibit C. Provider shall invoice Entity monthly (i) at agreed-upon offered contractual salary equal to 75% of Provider Employee's exit salary for Provider Employees that previously worked at Entity, or (ii) at agreed-upon offered contractual salary for Provider Employees that did not previously work at Entity.

Additional Compensation: Entity shall pay Provider for Provider Employees that have qualified for additional compensation authorized in advance and approved in writing by Entity. Provider shall invoice Entity, for agreed-upon additional compensation for Provider Employees. The method and timing of payment of such additional compensation shall be in accordance with the performance of such service.

Service Fee/Direct Payroll Costs: In addition to the payments for work performed and additional compensation, Entity shall pay Provider a service fee equal to four percent (4%) of Provider Employee's exit salary and all applicable direct payroll costs (e.g., Social Security, FICA & Medicare, AZ Unemployment, Federal Unemployment, Workers' Compensation (professional/classified)).

Reimbursement: Entity shall reimburse Provider for mileage, travel, conferences and other out-of-pocket expenses incurred by Provider Employees, but only if such expenses are approved (prior to the expense being incurred) by the Provider and Entity. To obtain such reimbursement, Provider Employees must submit a written claim for reimbursement to Entity. Entity shall forward the claim to Provider. Provider shall reimburse the Provider Employee and include the amount of the reimbursement on Provider's invoice to Entity.

Discretionary Leave Days: Entity shall provide Provider Employees with vacation, sick and paid holidays. The vacation will be earned at one tier below the Provider Employee's exit number of days. Sick leave will be earned at the same rate as other employees. The holiday schedule will be the same as the other personnel in the same classification. All vacation, sick and holiday leave will be prorated based on the length of the Provider Employee's Agreement. In the event a Provider Employee exceeds the discretionary leave days, the Provider will invoice the Entity less the daily rate of pay per Provider Employee absence for each day missed.

Electronic Access: Entity shall provide each Provider Employee access to electronic and technological tools allowing for participation and function of normal Entity duties (e.g., Kronos, computer hardware and software, e-mail, internet, cell phones, etc.). Provider Employees shall be responsible for all taxes incurred as the result of personal use of the Entity's property such as cell phones. Provider Employees agree to follow all Entity guidelines and policies regarding use of the same.

MVD Annual Report: Entity shall provide an annual MVD report for each Provider Employee at the time of each annual performance evaluation.

Exhibit "B"

Terms Notice - 2011/2012

Employee Name & Demographic Information

Name

Mailing Address

E-mail Address (required):

Worksite**:

Home Phone:

Work Phone:

* Employee agrees to notify of change to address/phone number within ten (10) days

Terms and Conditions of Contract:

Governmental Entity: City of Flagstaff

Total Employment Days: 136 ✓

Position**:

(**subject to change upon reasonable request by Employer)

Contract Period: 7/1/2011 - 1/9/2012 ✓

Number of Pay Periods: 13

First Check: 7/20/2011

Last Check: 1/20/2012

Entity Annual Salary Amount: \$77,735.12

@ 75%

swplus Annual Salary: \$58,301.34

swplus Daily Rate of Pay: \$428.69

swplus Pay Per Pay Period: \$4,484.72

* Payments to the employee will be made bi-monthly, for the number of pay periods indicated above for balance of contract. All additional service pay approved for smartworkspplus, inc employees will be at the discretionary current smartworkspplus, inc. rate.

Compensated Sick/Leave & Vacation Days

Sick/Leave Days per contract: # 6 ✓

Vacation Days per contract: ^ 17 ✓

Each employee is provided discretionary sick/leave days upon the initial placement. Compensated sick/leave days will not accrue beyond the term of the contract and are included in the number of compensated employment days. IN THE EVENT AN EMPLOYEE EXCEEDS THE INDICATED SICK DAYS, THE EMPLOYEE WILL BE COMPENSATED LESS THE DAILY RATE OF PAY PER EXCESS DAY.

^ Each 12-month employee is provided vacation days as indicated. Vacation days will not accrue beyond the term of the contract and are included in the number of compensated employment days.

By signing below, Employee hereby acknowledges that Employee has reviewed the foregoing information and affirms that the information is true and correct to the best of Employee's knowledge.

Employee Signature: _____ Date: _____

Employer Signature: _____

Date: 7/13/2011



Exhibit C
Fee Schedule 2012-2013

Last Name	First Name	MI	Position	Contract Period Start Date/End Date	City Salary Base	Annual Rate to swp 75%	Days Employment	Daily Rate to swp	City Extra Comp*	Extra * Comp to swp	Annual Sick Days	Annual Vacation Days (3PTO)
				09/01/12-08/31/13	57,451.47	43,088.60	260	165.73	0.00	0.00	12	26
				01/01/13-12/31/13	107,055.52	80,291.64	261	307.63	0.00	0.00	12	16
				01/28/13-10/25/13	45,120.50	33,840.38	195	173.54	0.00	0.00	9	12
					209,627.49	157,220.62			0.00	0.00		

smartworksplus, inc.

City of Flagstaff

By:

By: _____

Name: William E McClelland

Name: Kevin Burke

Title: Vice President

Title: City Manager

Date: January 30, 2013

Date: _____

Total Salaries/Added Pay	157,220.62	
Social Security	9,747.68	6.20%
Medicare	2,279.70	1.45%
FUTA (first \$7,000)	168.00	
AZ SUI (first \$7,000)	464.80	
Workers' Comp	554.01	0.69%
Workers' Comp	4,438.80	5.77%
Admin Fee	6,288.82	4.00%
Total	\$181,162.43	11.65%

Workers' Comp rates differ because of position & hire date

# New employees - once 2013	2	FUTA = 4200	AZ SUI = 116.20
# New employees - once 2012 & 2013	1	FUTA = 4200 x 2	AZ SUI = 116.20 x 2

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Nicole Woodman, Sustainability Manager
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Approval of License Agreement: National Bank of Arizona License Agreement for temporary use of property for Aquaplex staff parking.

RECOMMENDED ACTION:

Authorize License Agreement with National Bank of Arizona for temporary use of their property located east of the northeast corner of 4th Street and Route 66 for Aquaplex staff parking through September 30, 2013.

Policy Decision or Reason for Action:

Subsidiary Decisions Points: During construction of the Aquaplex solar parking canopies the eastern portion of the parking lot will be closed off to patron and staff parking. In order to ensure ample patron parking, Aquaplex staff will be required to park in alternative areas. Staff will be assigned to a specified parking area based on their work schedule. Staff's safety is of utmost concern. The National Bank of Arizona property located east of the northeast corner of 4th Street and Route 66 would provide the safest parking alternative. The route to and from the lot has a pedestrian crosswalk and is better lit than all alternative parking areas.

Financial Impact:

The National Bank of Arizona is requesting a \$1,000 fee for the use of the lot through September 30, 2013. All costs related to the solar project are financed.

Connection to Council Goal:

Effective governance.

Has There Been Previous Council Decision on This:

Yes.

May 21, 2013: Read Ordinance 2013-10 for second time

May 7, 2013: Read Ordinance 2013-10 for first time

April 2, 2013: Capital financing award to Banc of America Public Capital

March 15, 2010: Solar system installation award to Ameresco

PARKING LICENSE AGREEMENT

This Parking License Agreement (“Agreement”) is made effective as of the ___ day of June, 2013 (“Effective Date”) by and between National Bank of Arizona, a national banking association (“NBAZ”) and City of Flagstaff, an Arizona municipal corporation (“City”).

RECITALS

WHEREAS, NBAZ owns the real property located east of the northeast corner of 4th Street and Route 66 in Flagstaff, Arizona, as more particularly depicted on Exhibit “A” attached hereto (the “Property”);

WHEREAS, City owns certain real property near the Property, the parking area of which real property will undergo construction and improvements and a portion of which will be temporarily unavailable for use by the City while under construction.

WHEREAS, City desires to occupy the Property, on a temporary basis, for parking use by City, its employees, agents, invitees, tenants and customers (the “City Parties”), and NBAZ is willing to allow such use by the City Parties, on the terms and conditions as set forth in this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

AGREEMENT

1. License. NBAZ hereby grants to City a non-exclusive license to utilize the Property for parking for the Term of this Agreement. In connection with the foregoing, NBAZ hereby grants to City a non-exclusive license for cross-access for vehicular and pedestrian ingress, egress, and parking over, across and through the NBAZ’s Property for the Term of this Agreement.
2. Term. The term of this Agreement shall be for a period commencing on the Effective Date and expiring at midnight on September 30, 2013 (“Term”), except as otherwise may be earlier terminated hereunder. If authorized by the City Manager, this Agreement may be extended beyond the expiration date for up to thirty (30) additional days. The City shall pay NBAZ the amount of fifteen dollars (\$15.00) per day during this extension of the Agreement.
3. License Fee. As a condition to NBAZ granting the license hereunder, City shall pay to NBAZ a license fee in the amount of \$1,000.00, which license fee is due and payable upon the execution of this Agreement.
4. Condition of the Property; Maintenance. During the Term, NBAZ shall not be obligated make any alterations or improvements to the Property to conform the Property for the intended use by City under this Agreement. City acknowledges and agrees that it has inspected the Property and is taking the Property in its condition “AS-IS” and with all faults. During the Term, City shall, at its cost and expense, keep the surface of the property clean and free rubbish, garbage, and all personal property of City Parties. Upon the expiration of the Term, City shall remove any and all personal property, rubbish, garbage, and debris from the Property. As a condition to its use of the Property and the license granted hereunder, City shall not place, keep or store any personal property, rubbish, debris, or garbage on any portion of the Property which is unsightly, or otherwise causes a nuisance to NBAZ. City shall not make any alterations or improvements to the Property at any time without the prior written consent of NBAZ.

5. Insurance. City agrees that at all times during the Term of this Agreement, City will, at its sole cost and expense, carry and maintain: (i) commercial general liability insurance written on an occurrence form, with limits of not less than \$1,000,000 per occurrence for bodily injury and property damage combined, and \$2,000,000 general aggregate; (ii) commercial automobile liability insurance covering “all autos” with a combined single limit of not less than \$1,000,000; (iii) workers’ compensation insurance satisfying any statutory limits; and (iv) employers liability insurance with limits not less than \$1,000,000 each accident for bodily injury by accident, \$1,000,000 policy limit for bodily injury by disease and \$1,000,000 each employee for bodily injury by disease. City’s general liability policy shall name NBAZ as additional insured and shall be primary and noncontributing to any other insurance which may be available to NBAZ. All policies of insurance required herein shall provide a waiver of subrogation in favor of NBAZ. Prior to the commencement of the Term, City shall provide to NBAZ satisfactory evidence of insurance, including a copy of each endorsement form required herein.
6. Binding on Successors. This Agreement is binding upon the parties hereto and their respective officers, agents, employees, successors and assignees.
7. Indemnity. City hereby agrees to indemnify, defend and hold NBAZ harmless from and against all loss, damage, claim or liability that may occur or be claimed with respect to any person or property on, in or about the Property arising out of or pertaining to or based upon any negligence or willful misconduct by City, its agents, employees, invitees, contractors or any person on the Property by reason of City’s use or possession of the Property.
8. Termination. Either party may terminate this Agreement at any time during the Term effective immediately upon thirty (30) days’ written notice to the other party. Upon termination of this Agreement, and upon the request of NBAZ, City shall remove all improvements constructed by City (if any) on the Property or any other personal property from the Property and return the Property to its original condition, at its sole cost and expense.
9. Liens. City shall keep the Property free from all liens and encumbrances in connection with City’s use thereof.
10. Costs and Attorneys’ Fees. In the event either party to this Agreement takes any action, judicial or otherwise, to enforce or interpret any of the terms of this Agreement, the prevailing party is entitled to recover from the other party all expenses it may reasonably incur in taking such action, including without limitation, reasonable attorneys’ fees, whether incurred prior to litigation or in a suit or action or appeal or petition for review from a judgment or decree, or in connection with non-judicial action.
11. Modification. No modification of this Agreement is valid unless made in writing and executed by both parties to this Agreement.
12. Miscellaneous. This Agreement shall be governed by and construed in accordance with the laws of the State of Arizona. This Agreement may be executed in counterparts. This Agreement, including all attached exhibits, contains the entire and final understanding of the parties with respect to the subject matter of this Agreement. There are no representations or warranties by the parties, their agents, servants and employees whether oral or in writing, relating to or concerning this Agreement other than as specifically set forth herein. Each of the parties hereto warrants and represents to the other that it is authorized or empowered to enter into this Agreement and perform the terms hereof.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date above first written.

NBAZ:

NATIONAL BANK OF ARIZONA

By: _____

Name: _____

Title: _____

CITY:

CITY OF FLAGSTAFF

By: _____

Name: _____

Title: _____

ATTEST:

CITY CLERK, City of Flagstaff

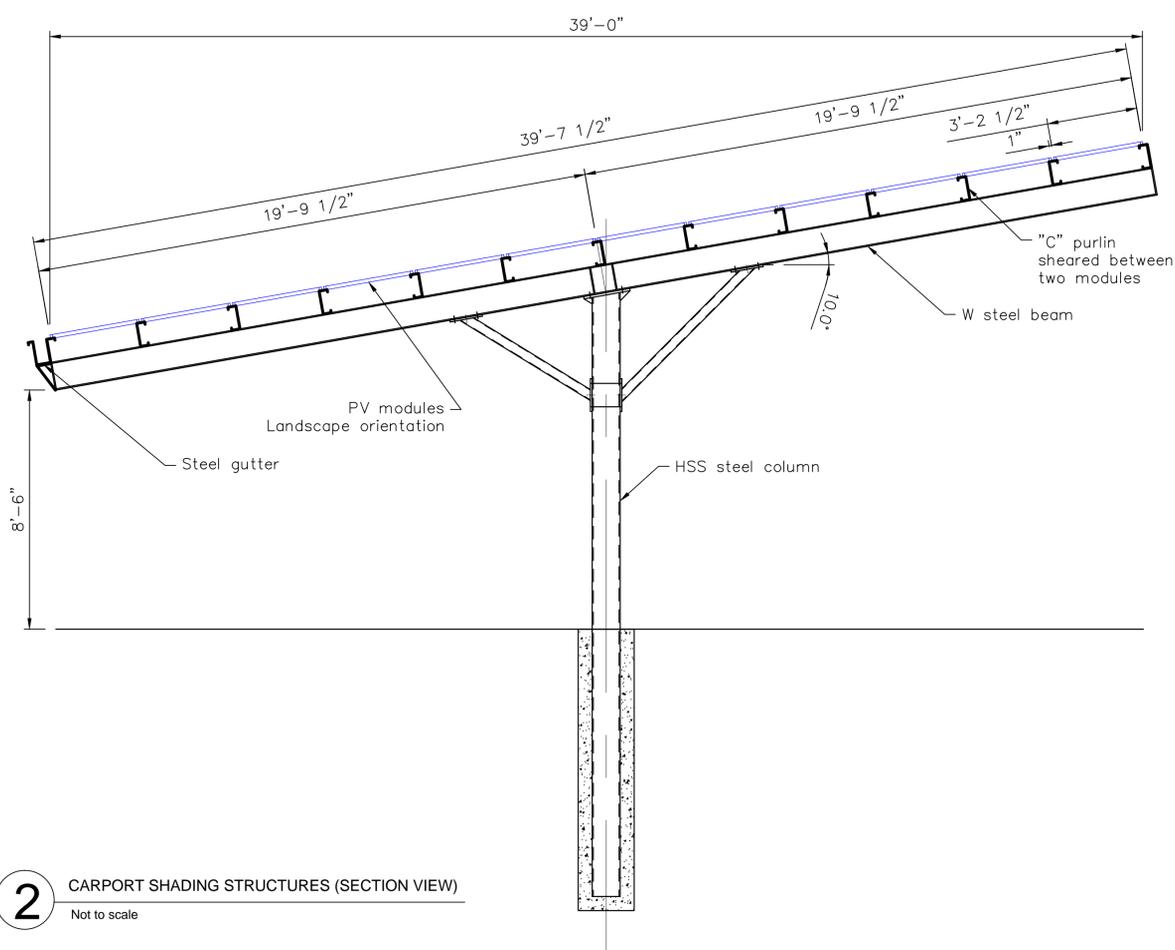
APPROVED AS TO FORM:

CITY ATTORNEY, City of Flagstaff

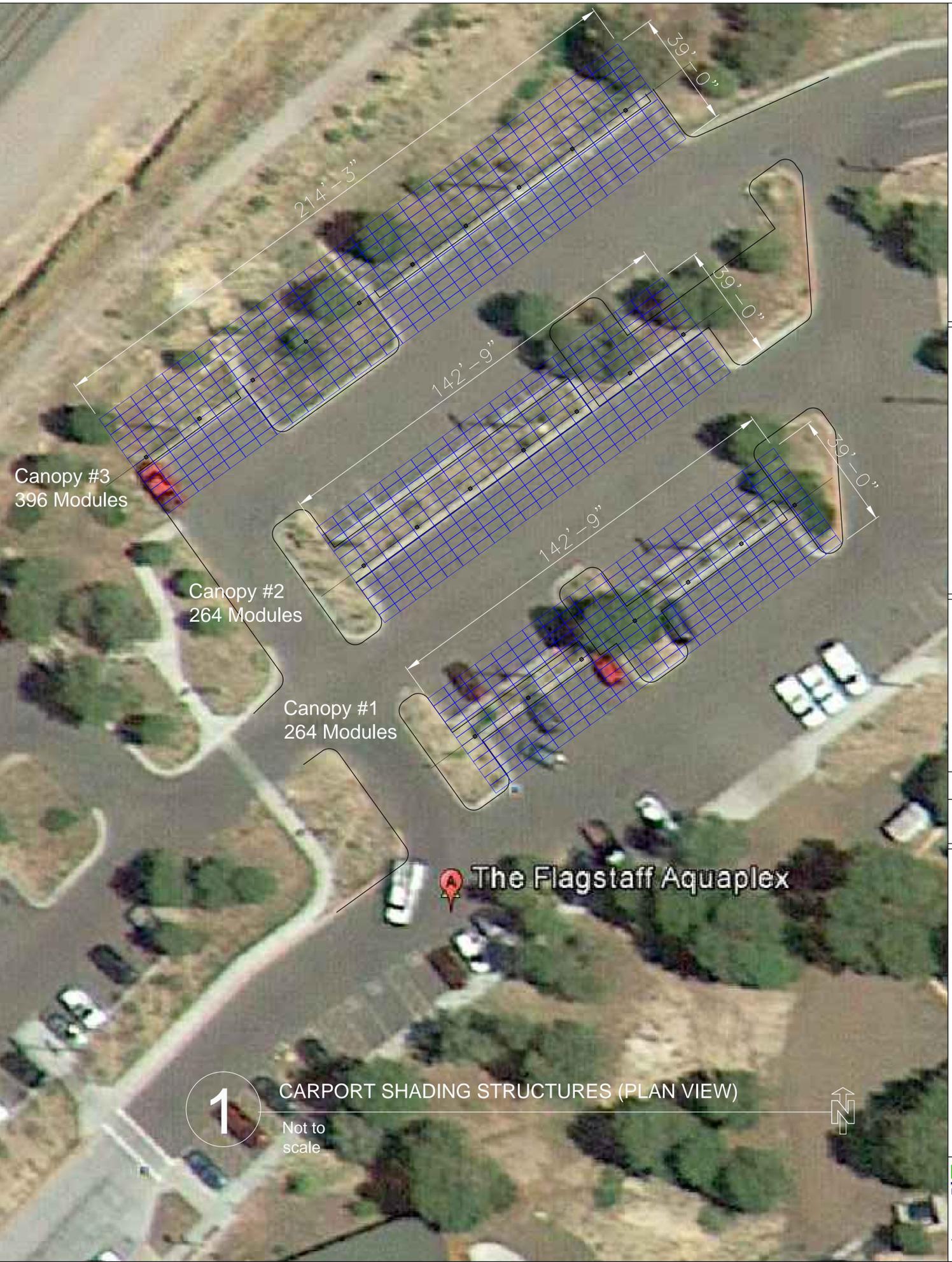
Property

[See Attached]





2 CARPORT SHADING STRUCTURES (SECTION VIEW)
Not to scale



1 CARPORT SHADING STRUCTURES (PLAN VIEW)
Not to scale

SYSTEM SUMMARY	
PV MODULE TYPE	Canadian Solar CS6X-300 M
# MODULES	924
TOTAL STC RATED DC POWER	277.2 kW
STRING CONFIGURATION	11 Modules in Series
TOTAL # OF STRINGS	xx

DESIGN CONSIDERATIONS	
TILT	10 Deg.
MODULE ORIENTATION	Landscape
PROJECT NOTES:	xx

DATE	REV	REVISION/DESCRIPTION
04/22/13	A	FOR APPROVAL
	B	RESOLVE NO. 13-037

CUSTOMER: Ameresco		DRAFTING SERVICE: Resolute Performance Contracting	
REV. NO	DATE: 02-14-13	DRAWN BY: VS	CHECKED BY: VS
JOB NO	13-037		
DWG. NO	L-02		

RESOLUTE
Performance Contracting

PHONE (623) 208 7560
FAX (623) 748 0368
455 S 48th Street, Suite 106
TEMPE, AZ 85281

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Irene Hunkler, Support Services Supervisor
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Approval of Grant Application: U.S. Department of Justice, FY2013 Edward Byrne Memorial Justice Assistance Grant in the amount of \$23,249 to pay for Police Staff Overtime and 14 ballistic body armor vests for Coconino County Sheriff's Department and authorizing the acceptance upon award of the grant agreement.

RECOMMENDED ACTION:

Approve the submission of a grant application and authorize acceptance upon award for the U.S. Department of Justice, FY 2013 Edward Byrne Memorial Justice Assistance Grant (JAG) for an amount of \$23,249.

Policy Decision or Reason for Action:

Approval and acceptance of this grant application by consideration authorizing the submission of a grant application to the U.S. Department of Justice, FY2013 Edward Byrne Memorial Justice Assistance Grant in the amount of \$23,249 to pay for scheduled police staff overtime. Decision Points: Without monies allocated by the FY 2013 Edward Byrne Memorial Justice Assistance Grant (JAG), funds needed to pay scheduled overtime for activities to prevent and control crime may not be available.

Financial Impact:

There is no significant financial impact to the Flagstaff Police Department in terms of expenditures. There is no match required for this grant.

Connection to Council Goal:

11. Effective governance

Has There Been Previous Council Decision on This:

Not for this application, however past City Councils has authorized previous year JAG grant applications.

Options and Alternatives:

Approve the grant application which will assist the Flagstaff Police Department with overtime funding. This enhances our ability to further our CompStat and Community Programs which will deter criminal activity.

Disapproving this grant will require the Flagstaff Police Department to use its budgeted overtime funds or will limit scheduled overtime for CompStat initiatives and Community Policing programs.

Background/History:

The U.S. Department of Justice, Office of Justice Programs (OJP) Bureau of Justice Assistance (BJA), was created in 1984 to provide federal leadership in developing the nation's capacity to prevent and control crime, administer justice, and assist crime victims. The Edward Byrne Memorial Justice Assistance Grant (JAG) Program allows states, tribes, and local governments to support a broad range of activities to prevent and control crime based on their own local needs and conditions. JAG blends the previous Byrne Formula and Local Law Enforcement Block Grant (LLEBG) Programs to provide agencies with the flexibility to prioritize and spend funds where they are most needed. The JAG formula program provides agencies with the flexibility to prioritize and place justice funds where they are needed most. The formula calculates direct allocations for local governments within each state, based on their share of the total violent crime reported with the state.

Key Considerations:

The JAG formula program provides agencies with the flexibility to prioritize and place justice funds where they are needed most. The formula calculates direct allocations for local governments within each state, based on their share of the total violent crime reported with the state.

The City has been certified as disparate and must submit a joint application for the aggregate of funds allocated. The JAG disparate jurisdictions are certified by the Director of the Bureau of Justice Assistance (BJA), based in part on input from the state's Attorney General. The disparate allocation occurs when the City is scheduled to receive one and one half times more than County, while the County bears more than 50% of the costs of prosecution of incarceration that arise for Part 1 violent crimes committed in the city.

City funds will be used to supplement overtime for community policing and property crime interdiction initiatives. As our citizens request additional patrols or when we can identify an area that would benefit from additional Police presence, these funds will be a key factor in assuring that we can provide necessary services.

As part of the joint application process an IGA is required to be submitted to the funding agency indicating who will serve as applicant/fiscal agent for the joint funds. The IGA will authorize payment to the County in the amount of \$6,975 of the JAG funds.

Expanded Financial Considerations:

The FY13 JAG funds have been allocated in the amount of \$23,249, of which the City agrees to pay the County a total of \$6,975 to be used to purchase 14 ballistic body armor vests for Coconino County Sheriff's Department.

The City amount of \$15,248 will be used for police overtime, with the remaining balance of \$1,026 to be used for allowable administrative costs for the City as the applicant/fiscal agent.

This grant will fund approximately 338.84 person-hours of discretionary overtime for officers. As our economy continues to struggle, the financial impact of these funds cannot be minimized. Without these additional funds, the Flagstaff Police Department will be hard pressed to maintain previous levels of service in regards to special events and community policing projects.

Community Benefits and Considerations:

These funds will assist the Flagstaff Police Department and the County Sheriff's Department to prevent and control crime, administer justice, and assist crime victims.

Community Involvement:

Inform

Attachments: [FY13 JAG Grant Application](#)

APPLICATION FOR FEDERAL ASSISTANCE	2. DATE SUBMITTED	Applicant Identifier
1. TYPE OF SUBMISSION Application Non-Construction	3. DATE RECEIVED BY STATE	State Application Identifier
	4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier
5. APPLICANT INFORMATION		
Legal Name	Organizational Unit	
City of Flagstaff	Flagstaff Police Department	
Address City Hall, 211 West Aspen Flagstaff, Arizona 86001-5359	Name and telephone number of the person to be contacted on matters involving this application Brechler-Knaggs, Stacey (928) 213-2227	
6. EMPLOYER IDENTIFICATION NUMBER (EIN) 86-6000244	7. TYPE OF APPLICANT Municipal	
8. TYPE OF APPLICATION New	9. NAME OF FEDERAL AGENCY Bureau of Justice Assistance	
10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 16.738 CFDA EDWARD BYRNE MEMORIAL JUSTICE TITLE: ASSISTANCE GRANT PROGRAM	11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT City of Flagstaff, Flagstaff Police Department - FY 2013 JAG Grant	
12. AREAS AFFECTED BY PROJECT Northern Arizona		
13. PROPOSED PROJECT Start Date: October 01, 2012 End Date: September 30, 2014	14. CONGRESSIONAL DISTRICTS OF a. Applicant b. Project AZ01	
15. ESTIMATED FUNDING	16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? Program is not covered by E.O. 12372	
Federal	\$23,249	
Applicant	\$0	
State	\$0	
Local	\$0	

Other	\$0	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? N
Program Income	\$0	
TOTAL	\$23,249	
18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS REQUIRED.		

Close Window

**EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT (JAG) PROGRAM
FY 2013 LOCAL SOLICITATION**

ABSTRACT (Attachment 1)

Applicant's Name: City of Flagstaff, Flagstaff Police Department (FPD)

Title of Project: City of Flagstaff, Flagstaff Police Department - FY 2013 JAG Grant

Goals:

FPD - Funding to pay for approximately 338.84 hours of officer overtime, which will help our continued efforts to prevent or reduce crime and violence. In addition, funds to be used for allowable administrative costs for the City as the applicant/fiscal agent.

CCSO – Between 2002 and 2011, 19 officers were feloniously killed (3 in 2011) and 21 officers were accidentally killed in the line of duty. In 2011, 1,900 officers were assaulted in the line of duty (3.5% of all officers assaulted in the United States). Source: FBI Uniform Crime Reports. Our goal for this project is to provide a safer environment for our sworn officers.

Description of Strategies:

FPD has a proven track record of establishing and maintaining crime prevention programs that elicit cooperation between community members and law enforcement personnel to control, detect and investigate crime. Using Community Policing principles and a CompStat policing model we have achieved a multifaceted, dynamic approach to crime reduction, improving quality of life and resource allocation. Crime data is collected, disseminated and analyzed on a regular basis so that effective strategies and tactics can be developed to prevent or solve crimes. Using CompStat data, department personnel and resources are rapidly deployed to most effectively reduce crime and protect property and relentless follow-up and assessment helps ensure results are achieved.

CCSO – Our strategy aligns with the strategy of the Bullet Proof Vest Program. We will utilize funding from the opportunity for the initial purchase and use our general funds for future purchases as vests expire.

Project Identifiers:

The five project identifiers that meet the criteria for the Edward Byrne Memorial Justice Assistance grant are Community Policing, Community Based Programs, Policing, Crime Prevention and Overtime.

CCSO – This project activities that are associated with the FY2013 Justice Assistance Grant identifiers are 1) Body Armor, 2) Officer Safety, 3) Policing, 4) Crime Prevention and 5) Community Policing.

Major Deliverables:

FPD – Approximately 338.84 hours of officer overtime, which will help our efforts to prevent or reduce crime and violence and allowable administrative costs.

CCSO – The purchase of 14 ballistic resistant body armor vests will continue to maintain officer safety.

Coordination Plans:

FPD – Administer Officer Overtime to achieve the project goal by the end of the grant period.

CCSO – We will enter into a Memorandum of Understanding (MOU) with the City of Flagstaff. Once this document has been fully executed, we will obtain approval from the County to purchase the vests. We track which officers vests are due to expire and prior to expiration we will order a fitted vest for those officers. Lead armory personnel will receive, distribute and log the vests into our officer inventory log.

This grant will not coordinate with any other justice-related funding and will be used solely for overtime by the City of Flagstaff and for the purchase of body armor vests for Coconino County Sheriff's Department.

**EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT (JAG) PROGRAM
FY 2013 LOCAL SOLICITATION**

PROGRAM NARRATIVE (Attachment 2)

The Employer Identification Number (EIN) on the SF-424 is the City of Flagstaff Municipal Government EIN. The Flagstaff Police Department has a vendor number that is 86-6000282, please use EIN listed on the SF-424. The City of Flagstaff's DUNS number is 088302625, valid until 03/6/2014. The Coconino County's DUNS number is 838150878, valid until 02/26/2014

Program Objectives

Flagstaff Police Department (FPD) –

FPD is applying for \$23,249 under the purpose of: LAW ENFORCEMENT PROGRAMS. The \$15,248 will fund approximately 338.84 person-hours of discretionary overtime for officers. As the economy continues to struggle, budget cuts and economic crisis increase the likelihood of crimes therefore the financial impact of these funds cannot be minimized. We will be hard-pressed to meet minimum manning levels and respond to emergencies without going over budget on overtime, even without manning the extra programs that the community has come to expect. The remaining \$1026 will be used for the allowable 10% administrative costs for the City as the applicant/fiscal agent.

Coconino County Sheriff's Office (CCSO) -

CCSO is applying for \$6,975 under the purpose of: LAW ENFORCEMENT PROGRAMS. The \$6,975 will help fund a continuing effort by the Sheriff's Office to provide our officers with ballistic vests.

According to the IACP Body Paper (2009) nationally, ambush assaults remain one of the two leading causing of felonious deaths of officers. Of the 57 officers feloniously killed in 2007, 16 were killed in ambush attacks – the same number as killed by felonious assaults during arrest situations. Most experts agree that, short of being clairvoyant, the best means of surviving such unforeseeable and unprovoked attacks is through the use of body armor at all times. This year the Sheriff's Office has moved to a mandatory wear policy of body armor for officers. As the economy is continuing to put a hardship on County budget, using funding from this opportunity to purchase vests will dramatically help our officers.

Organization Capabilities/Competencies

FPD - We know our strategies work – in calendar year 2012 alone we achieved a 6% reduction in Part One crimes, maintained a 100% reduction in Homicides, a 32% reduction in sex assaults, a 12% reduction in grand theft autos, a 46% reduction in auto burglaries, and a 27% reduction in DWI related collisions. The department's effective and consistent application of the methods and principles of CompStat and Community Policing have improved the safety and quality of life for the citizens of Flagstaff.

The City of Flagstaff Grants Management Team (GMT) is composed of the Grants Manager, Grants Specialist, Financial Officer/Accountant, and the Project Representative. This team approach has assured the city's success in grant compliance from award to closeout. The GMT ensures all terms and conditions of the grant agreement are followed, provides the necessary financial and performance reports, monitors grant and contract performance, and that all evaluation, audit and closeout procedures are met.

The City of Flagstaff has a full time Grants Manager position which involves researching, monitoring, and applying for available municipal related grants, monitoring, implementing, evaluating, and assuring the compliance of terms and conditions, and in general, is the central coordinator for all grants, which may involve internal auditing and holding others accountable for proper grant compliance. The Grants Specialist position provides support to the Grant Manager in these functions. The Accountants assigned to the grants have a high level of technical expertise in governmental budgeting and accounting. In addition, the Project Representatives have extensive knowledge in the targeted areas in which they are seeking funds and administering the funded programs.

The City receives numerous federal grants, which are audited yearly by an Independent Auditor on compliance with requirements applicable to each major program and on internal control over compliance in accordance with OMB Circular A-133. The Single Audit Report, Schedule of Expenditures of Federal Awards for the past five years, have reflected no audit findings.

CCSO - We are highly capable of implementing this project. Key players have been identified to oversee this project. Lead Armory staff will take the measurements of the officers that are in need of the vests, place the order for NIJ approved vests, make annual inspections and track the vests for expiration.

Program Activities - Design and Implementation

FPD – When not actively responding to citizen initiated calls for service, officers will use these funds to conduct proactive enforcement and education in neighborhoods and business areas to reduce crime and improve quality of life. These funds will pay for 338.84 hours of officer overtime, which will help preserve jobs and be a huge economic benefit to staff. Adding so many hours of “feet-on-the-street” for these community policing, Neighborhood Block Watch and CompStat initiatives will greatly enhance all our efforts toward our public safety mission.

Community Policing programs provide positive community relationships and excellent customer service to the community. Programs included in community policing include the following:

Neighborhood Block Watch: Neighborhood Block Watch meetings serve as a forum for officers to reach the public. Officers attend community support meetings bi-monthly to identify community concerns and crime patterns and make community policing contacts in the form of educational presentations and clean-up projects. In addition to sharing of information, officers develop problem-solving strategies which result in special enforcement projects, surveillances and “knock and talk” details.

CompStat is a multifaceted, dynamic approach to crime reduction. Data is collected, disseminated and analyzed on a regular basis so that effective strategies and tactics can be developed to prevent or solve crimes. Using these strategies, department personnel and resources are rapidly deployed. CompStat is a valuable tool for the Flagstaff Police Department and effectively reduces crime and protects property.

CCSO - The Sheriff's Office lead armory stall will measure, order, receive and distribute vests that meet or exceed the NIJ standards. The Sheriff's Office Finance team will secure purchase orders and invoice payment in a timely manner.

Project Plan - Impact/Outcomes, Evaluation, and Sustainment

FPD - In line with our community policing philosophy, field personnel use problem-solving methods to address crime, fear of crime and quality of life issues. In addition to sharing information, officers develop problem-solving strategies which resulted in numerous special enforcement projects, surveillances, and "knock and talks". Many of these activities are a direct result of increased criminal activities in a specific location or neighborhood and the citizen complaints or concerns over these activities. Our various "Safe" programs - Safe Streets, Safe Nights, and Safe Neighborhoods - are examples of programs that have been welcomed by our citizens and merchants. The law abiding citizens of our community deserve and expect our streets and neighborhoods to be places where they feel safe. The numerous letters, comments and accolades we receive from citizens reinforce the need for these beneficial programs.

Officers apply CompStat process to address citizens concerns of criminal activity, fear of crime and public intoxication in high crime areas. Specific initiatives, directed patrol efforts, and undercover surveillance have proved extremely effective. Officers also worked closely with community members to improve the environmental design and security of high traffic/high crime locations.

CCSO – Moving from "strongly recommending" to a mandatory wear policy means a large initial investment. Funding from this opportunity will afford us the ability to purchase 14 vests of the 25 needed to provide vests for all sworn officers. Once distributed, our officers will be safer. The additional 21 vests will be purchased from our general fund. We will also use general funds to purchase vests as they are due to expire.

**EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT (JAG) PROGRAM
FY 2013 LOCAL SOLICITATION**

BUDGET NARRATIVE (Attachment 3)

The \$23,249 JAG funds will be divided between the disparate City of Flagstaff (\$16,274), Flagstaff Police Department (FPD) and Coconino County Sheriff's Office (CCSO) (\$6,975). The City share is slated to be used for discretionary overtime for our Officers to carry out Community Policing programs and CompStat initiatives.

CITY OF FLAGSTAFF -

Overtime Cost	Approx. Hrs.	Approx. Hrly Wage (includes ERE)	Total
Police Officer	338.84	\$45.00	\$15,248
City Administrative Costs		6.73%	\$ 1,026

Fringe Benefits – Fringe benefits are for the personnel listed in budget category B and only for the percentage of time devoted to the project. The fringe benefits on overtime hours are only for FICA; Workman's Compensation, Arizona Public Safety Personnel Retirement employer's contribution, and Long Term Disability benefit. The percentages shown for these items on the Budget Detail Worksheet are the City of Flagstaff's burden rates for police officers' overtime hours.

The remaining \$1026 will be applied to the associated administrative costs, bringing the City of Flagstaff's total to \$16,274. Administrative fees include costs associated with distributing the funds, monitoring the award, submitting reports (financial & progress), procurement, and closeout.

COCONINO COUNTY SHERIFFS OFFICE -

Coconino County will use the \$6,975 to purchase 14 body armor vests for sworn officers to comply with our recent mandatory wear policy.

**EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT (JAG) PROGRAM
FY 2013 LOCAL SOLICITATION**

REVIEW NARRATIVE (Attachment 4)

The City Staff Summary Report for the FY 2013 JAG grant application and the Intergovernmental Agreement will be presented at the July 2, 2013 City Council meeting. These meetings are open to the public and posted in City Hall and on the City's website. To comment on an item that is on the agenda citizens are asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, their name will be called to address the council and provide comment. In addition, the Coconino County Board of Supervisors will address an agenda item on July 2, 2013, certifying approval of the grant application and an Intergovernmental Agreement between the disparate City of Flagstaff and Coconino County. The County Board meetings are also open to the public to comment on any agenda item.

This year's City funds will be spent to supplement overtime for officer's community policing and CompStat initiatives. These funds will pay for approximately 338.84 hours of Officer overtime which will help our efforts to prevent or reduce crime and violence. Finally, adding so many "feet-on-the-street" for these important public safety initiatives will greatly enhance all our efforts toward our core mission.

The designated County funds will be spent on the purchase of 14 body armor vests for sworn officers to comply with our mandatory wear policy.

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

Approved by OMB
0348-0046

(See reverse for public burden disclosure.)

1. Type of Federal Action: <input checked="" type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. Status of Federal Action: <input checked="" type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier , if known: City of Flagstaff 211 West Aspen Flagstaff, Arizona 86001 Congressional District, if known:	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known:	
6. Federal Department/Agency: U. S. Department of Justice Office of Justice Programs Bureau of Justice Assistance	7. Federal Program Name/Description: Edward Bryne Memorial Justice Assistance Grant Program CFDA Number, if applicable: <u>16.738</u>	
8. Federal Action Number, if known:	9. Award Amount, if known: \$	
10. a. Name and Address of Lobbying Registrant <i>(if individual, last name, first name, MI):</i> Nexxus Consulting Bob Holmes 499 South Capital St., SW, Suite 600 Washington D.C. 20003	b. Individuals Performing Services <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i>	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: <u>Kevin Burke</u> Print Name: <u>Kevin Burke</u> Title: <u>City Manager</u> Telephone No.: <u>(928) 213-2051</u> Date: _____	
Federal Use Only:		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)



STANDARD ASSURANCES

The Applicant hereby assures and certifies compliance with all applicable Federal statutes, regulations, policies, guidelines, and requirements, including OMB Circulars A-21, A-87, A-102, A-110, A-122, A-133; Ex. Order 12372 (intergovernmental review of federal programs); and 28 C.F.R. pts. 66 or 70 (administrative requirements for grants and cooperative agreements). The applicant also specifically assures and certifies that:

1. It has the legal authority to apply for federal assistance and the institutional, managerial, and financial capability (including funds sufficient to pay any required non-federal share of project cost) to ensure proper planning, management, and completion of the project described in this application.
2. It will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
3. It will give the awarding agency or the General Accounting Office, through any authorized representative, access to and the right to examine all paper or electronic records related to the financial assistance.
4. It will comply with all lawful requirements imposed by the awarding agency, specifically including any applicable regulations, such as 28 C.F.R. pts. 18, 22, 23, 30, 35, 38, 42, 61, and 63, and the award term in 2 C.F.R. § 175.15(b).
5. It will assist the awarding agency (if necessary) in assuring compliance with section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. § 470), Ex. Order 11593 (identification and protection of historic properties), the Archeological and Historical Preservation Act of 1974 (16 U.S.C. § 469 a-1 et seq.), and the National Environmental Policy Act of 1969 (42 U.S.C. § 4321).
6. It will comply (and will require any subgrantees or contractors to comply) with any applicable statutorily-imposed nondiscrimination requirements, which may include the Omnibus Crime Control and Safe Streets Act of 1968 (42 U.S.C. § 3789d); the Victims of Crime Act (42 U.S.C. § 10604(e)); The Juvenile Justice and Delinquency Prevention Act of 2002 (42 U.S.C. § 5672(b)); the Civil Rights Act of 1964 (42 U.S.C. § 2000d); the Rehabilitation Act of 1973 (29 U.S.C. § 794); the Americans with Disabilities Act of 1990 (42 U.S.C. § 12131-34); the Education Amendments of 1972 (20 U.S.C. §§ 1681, 1683, 1685-86); and the Age Discrimination Act of 1975 (42 U.S.C. §§ 6101-07); *see* Ex. Order 13279 (equal protection of the laws for faith-based and community organizations).
7. If a governmental entity—
 - a) it will comply with the requirements of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (42 U.S.C. § 4601 et seq.), which govern the treatment of persons displaced as a result of federal and federally-assisted programs; and
 - b) it will comply with requirements of 5 U.S.C. §§ 1501-08 and §§ 7324-28, which limit certain political activities of State or local government employees whose principal employment is in connection with an activity financed in whole or in part by federal assistance.

Signature Date Kevin Burke, City Manager

Date

**CERTIFICATIONS REGARDING LOBBYING; DEBARMENT,
SUSPENSION AND OTHER RESPONSIBILITY MATTERS
AND
DRUG-FREE WORKPLACE REQUIREMENTS**

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature of this form provides for compliance with certification requirements under 28 CFR Part 69, "New Restrictions on Lobbying" and 28 CFR Part 67, "Government-wide Debarment and Suspension (Non-procurement) and Government-wide Requirements for Drug-Free Workplace (Grants)." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Justice determines to award the covered transaction, grant, or cooperative agreement.

1. LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 28 CFR Part 69, for persons entering into a grant or cooperative agreement over \$100,000, as defined at 28 CFR Part 69, the applicant certifies that:

(a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any Federal grant, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal grant or cooperative agreement;

(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure of Lobbying Activities," in accordance with its instructions;

(c) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subgrants, contracts under grants and cooperative agreements, and subcontracts) and that all sub-recipients shall certify and disclose accordingly.

2. DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS (DIRECT RECIPIENT)

As required by Executive Order 12549, Debarment and Suspension, and implemented at 28 CFR Part 67, for prospective participants in primary covered transactions, as defined at 28 CFR Part 67, Section 67.510

A. The applicant certifies that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of Federal benefits by a State or Federal court, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and (d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default; and

B. Where the applicant is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this application.

3. DRUG-FREE WORKPLACE (GRANTEES OTHER THAN INDIVIDUALS)

As required by the Drug-Free Workplace Act of 1988, and implemented at 28 CFR Part 67, Subpart F, for grantees, as defined at 28 CFR Part 67 Sections 67.615 and 67.620

A. The applicant certifies that it will or will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an on-going drug-free awareness program to inform employees about

(1) The dangers of drug abuse in the workplace;

(2) The grantee's policy of maintaining a drug-free workplace;

- (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
- (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency, in writing, within 10 calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to:

Department of Justice
Office of Justice Programs
ATTN: Control Desk
810 Seventh Street, N.W.,
Washington, D.C. 20531

- Notice shall include the identification number(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
 - (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Check ___ if there are workplaces on file that are not identified here.

Section 67, 630 of the regulations provides that a grantee that is a State may elect to make one certification in each Federal fiscal year. A copy of which should be included with each application for Department of Justice funding. States and State agencies may elect to use OJP Form 4061/7.

Check ___ if the State has elected to complete OJP Form 4061/7.

DRUG-FREE WORKPLACE (GRANTEES WHO ARE INDIVIDUALS)

As required by the Drug-Free Workplace Act of 1988, and implemented at 28 CFR Part 67, Subpart F, for grantees, as defined at 28 CFR Part 67; Sections 67.615 and 67.620

A. As a condition of the grant, I certify that I will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant; and

B. If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, I will report the conviction, in writing, within 10 calendar days of the conviction, to:

Department of Justice
Office of Justice Programs
ATTN: Control Desk
810 Seventh Street, N.W.,
Washington, D.C. 20531

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above certifications.

1. Grantee Name and Address:

City of Flagstaff, 211 West Aspen, Flagstaff AZ 86001

2. Application Number and/or Project Name:

2013-H4148-AZ-DJ / City of Flagstaff Police Dept JAG 2013 Grant

86-6000-244

3. Grantee IRS/Vendor Number _____

4. Type/Print Name and Title of Authorized Representative

Kevin Burke, City Manager

5. Signature

6. Date



**U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS
ACCOUNTING SYSTEM AND FINANCIAL CAPABILITY QUESTIONNAIRE**

SECTION A: PURPOSE

The financial responsibility of grantees must be such that the grantee can properly discharge the public trust which accompanies the authority to expend public funds. Adequate accounting systems should meet the following criteria as outlined in the OJP Financial Guide.

- (1) Accounting records should provide information needed to adequately identify the receipt of funds under each grant awarded and the expenditure of funds for each grant.
- (2) Entries in accounting records should refer to subsidiary records and/or documentation which support the entry and which can be readily located.
- (3) The accounting system should provide accurate and current financial reporting information.
- (4) The accounting system should be integrated with an adequate system of internal controls to safeguard the funds and assets covered, check the accuracy and reliability of accounting data, promote operational efficiency, and encourage adherence to prescribed management policies.

SECTION B: GENERAL

1. If your firm publishes a general information pamphlet setting forth the history, purpose and organizational structure of your business, please provide this office with a copy; otherwise, complete the following items:

a. When was the organization founded/incorporated (<i>month, day, year</i>) 05/26/1894	b. Principle officers Kevin Burke _____ Barbara Goodrich _____	Titles City Manager _____ Management Services Director _____
c. Employer Identification Number: 86-6000244		
d. Number of Employees Full Time: _____ Part Time: _____		

2. Is the firm affiliated with any other firm: Yes No
 If "yes", provide details: this is the first line
 this is the second line

3. Total Sales/Revenues in most recent accounting period. (12 months)
 \$ 228,637,097.00

SECTION C: ACCOUNTING SYSTEM

1. Has any Government Agency rendered an official written opinion concerning the adequacy of the accounting system for the collection, identification and allocation of costs under Federal contracts/grants? Yes No

a. If yes, provide name, and address of Agency performing review:	b. Attach a copy of the latest review and any subsequent correspondence, clearance documents, etc.
Note: If review occurred within the past three years, omit questions 2-8 of this Section and Section D.	

2. Which of the following best describes the accounting system: Manual Automated Combination

3. Does the accounting system identify the receipt and expenditure of program funds separately for each contract/grant? Yes No Not Sure

4. Does the accounting system provide for the recording of expenditures for each grant/contract by the component project and budget cost categories shown in the approved budget? Yes No Not Sure

5. Are time distribution records maintained for an employee when his/her effort can be specifically identified to a particular cost objective? Yes No Not Sure

6. If the organization proposes an overhead rate, does the accounting system provide for the segregation of direct and indirect expenses? Yes No Not Sure

7. Does the accounting/financial system include budgetary controls to preclude incurring obligations in excess of:

- a. Total funds available for a grant? Yes No Not Sure
- b. Total funds available for a budget cost category (e.g. Personnel, Travel, etc)? Yes No Not Sure

8. Is the firm generally familiar with the existing regulation and guidelines containing the cost principles and procedures for the determination and allowance of costs in connection with Federal contracts/grants? Yes No Not Sure

SECTION D: FUNDS CONTROL

1. If Federal grant/contract funds are commingled with organization funds, can the Federal grant funds and related costs and expenses be readily identified? Yes No Not Sure

SECTION E: FINANCIAL STATEMENTS

1. Did an independent certified public accountant (CPA) ever examine the financial statements? Yes No

2. If an independent CPA review was performed please provide this office with a copy of their latest report and any management letters issued. Enclosed N / A

3. If an independent CPA was engaged to perform a review and no report was issued, please provide details and an explanation below:

SECTION F: ADDITIONAL INFORMATION

1. Use this space for any additional information (*indicate section and item numbers if a continuation*)

SECTION G: APPLICANT CERTIFICATION

I certify that the above information is complete and correct to the best of my knowledge.

1. Signature

b. Firm Name, Address, and Telephone Number

a. Title Kevin Burke, City Manager

City of Flagstaff
211 West Aspen
Flagstaff, Arizona 86001
928-774-5281

SECTION H: CPA CERTIFICATION

The purpose of the CPA certification is to assure the Federal agency that the recipient can establish fiscal controls and accounting procedures which assure that Federal and State/local funds available for the conduct of the grant programs and projects are disbursed and accounted for properly. If the audit report requested in Section E 2 above is not enclosed, then completion of this section is required.

1. Signature

b. Firm Name, Address, and Telephone Number

a. Title

PUBLIC REPORTING BURDEN FOR THIS COLLECTION OF INFORMATION IS ESTIMATED TO AVERAGE 4 HOURS (OR MINUTES) PER RESPONSE, INCLUDING THE TIME FOR REVIEWING INSTRUCTIONS, SEARCHING EXISTING DATA SOURCES, GATHERING AND MAINTAINING THE DATA NEEDED, AND COMPLETING AND REVIEWING THE COLLECTION OF INFORMATION. SEND COMMENTS REGARDING THIS BURDEN ESTIMATE OR ANY OTHER ASPECTS OF THIS COLLECTION OF INFORMATION, INCLUDING SUGGESTIONS FOR REDUCING THIS BURDEN, TO OFFICE OF JUSTICE PROGRAMS, OFFICE OF THE COMPTROLLER, 810 - 7TH STREET, NW, WASHINGTON, DC 20531; AND TO THE PUBLIC USE REPORTS PROJECT, 1121-7120, OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Irene Hunkler, Support Services Supervisor
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Approval of an Intergovernmental Agreement: Between the City of Flagstaff and Coconino County (County) for submission of a grant application to the U.S. Department of Justice, FY 2013 Edward Byrne Memorial Justice Assistance (JAG) Grant.

RECOMMENDED ACTION:

Approve the Intergovernmental Agreement with Coconino County for the FY 2013 Edward Byrne Memorial Justice Assistance Grant in an amount of \$6,975 for the purchase of 14 ballistic body armor vests.

Policy Decision or Reason for Action:

Approval of this Intergovernmental Agreement (IGA) will enable the City of Flagstaff to pass through U.S. Department of Justice funding to the Coconino County to purchase 14 ballistic body armor vests.

Subsidiary Decisions Points: None

Financial Impact:

There is no significant financial impact to the Flagstaff Police Department in terms of expenditures.

Connection to Council Goal:

11. Effective governance

Has There Been Previous Council Decision on This:

Not for this application, however Council has authorized previous year grant intergovernmental agreements.

Options and Alternatives:

Approve the IGA between the City and County to allow the Coconino County Sheriff's Department to purchase 14 ballistic body armor vests.

Reject the IGA between the City and County which would not allow the Sheriff's Department to purchase 14 ballistic body armor vests, and would result in the City of Flagstaff not meeting grant requirements and forfeiting the grant request.

Background/History:

The U.S. Department of Justice, Office of Justice Programs (OJP) Bureau of Justice Assistance (BJA), was created in 1984 to provide federal leadership in developing the nation's capacity to prevent and control crime, administer justice, and assist crime victims. The Edward Byrne Memorial Justice Assistance Grant (JAG) Program allows states, tribes, and local governments to support a broad range of activities to prevent and control crime based on their own local needs and conditions. JAG blends the previous Byrne Formula and Local Law Enforcement Block Grant (LLEBG) Programs to provide agencies with the flexibility to prioritize and spend funds where they are most needed. The formula calculates direct allocations for local governments within each state, based on their share of the total violent crime reported with the state.

Key Considerations:

The JAG formula program provides agencies with the flexibility to prioritize and place justice funds where they are needed most. The formula calculates direct allocations for local governments within each state, based on their share of the total violent crime reported with the state.

The City has been certified as disparate and must submit a joint application for the aggregate of funds allocated. The JAG disparate jurisdictions are certified by the Director of the Bureau of Justice Assistance (BJA), based in part on input from the state's Attorney General. The disparate allocation occurs when the City is scheduled to receive one and one half times more than County, while the County bears more than 50% of the costs of prosecution of incarceration that arise for Part 1 violent crimes committed in the city.

City funds in the amount of \$16,274 (\$15,248 - direct costs/\$1,026 - indirect costs) will be used to supplement overtime for community policing and property crime interdiction initiatives. As our citizens request additional patrols or when we can identify an area that would benefit from additional Police presence, these funds will be a key factor in assuring that we can provide these necessary services.

As part of the joint application process an IGA is required to be submitted to the funding agency indicating who will serve as applicant/fiscal agent for the joint funds. The IGA will authorize payment to the County in the amount of \$6,975 of the JAG funds. The purchase of 14 ballistic body armor vests will continue to maintain officer safety for the Coconino County Sheriff's Office.

Expanded Financial Considerations:

The FY 2013 JAG funds have been allocated in the amount of \$23,249, of which the City agrees to pass through to the County a total of \$6,975 to be used to purchase 14 ballistic body armor vests.

Community Benefits and Considerations:

These funds will assist the Flagstaff Police Department and the County Sheriff's Department to prevent and control crime, administer justice, and assist crime victims.

Community Involvement:

Inform

Attachments: [FY13 Jag COunty -IGA](#)

FUNDING OPPORTUNITY NUMBER: BJA-2013-3599
FY 2013 GMS APPLICATION NUMBER: 2013-H4148-AZ-DJ

INTERGOVERNMENTAL AGREEMENT
BETWEEN THE CITY OF FLAGSTAFF, AZ AND COUNTY OF COCONINO, AZ
EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT (JAG) PROGRAM
FY 2013 LOCAL SOLICITATION / CFDA #16.738

This Agreement is made and entered into this ____ day of _____, 2013, by and between COCONINO COUNTY, acting by and through its governing body, the Board of Supervisors, hereinafter referred to as COUNTY, and the CITY of FLAGSTAFF, acting by and through its governing body, the City Council, hereinafter referred to as CITY, both of Coconino County, State of Arizona:

WHEREAS, this Agreement is made under the authority of Arizona Revised Statutes Section 11-952 as a joint exercise of powers; and,

WHEREAS, both parties are required to enter into this Intergovernmental Agreement as co-applicants of a grant under Edward Byrne Memorial Justice Assistance Grant Program and to designate a fiscal agent for purposes of administering grant funds; and,

WHEREAS, each governing body finds that the performance of this Agreement is in the best interests of both parties, that the undertaking will benefit the public, and that the division of costs fairly compensates the performing party for the services or functions under this agreement: and

NOW THEREFORE, the COUNTY and CITY agree as follows:

Section 1.

CITY agrees to serve as fiscal agent for purposes of accepting the JAG program grant award and to pay COUNTY a total of \$6,975 of JAG funds.

Section 2.

COUNTY agrees to use \$6,975 for the purposes outlined in the FY 2013 JAG Program award period of October 1, 2012 through September 30, 2014.

Section 3.

Nothing in the performance of this Agreement shall impose any liability for claims against either party other than claims for which liability may be imposed by the Federal Tort Claims Act. By entering into this Agreement, the parties do not intend to create any obligations express or implied other than those set out herein; further, this Agreement shall not create any rights in any party not a signatory hereto.

Section 4.

Each party to this agreement will be responsible for its own actions in providing services under this Agreement and shall not be liable for any civil liability that may arise from the furnishing of the services by the other party. Neither party agrees to indemnify or hold harmless the other party.

Section 5.

Notwithstanding any other provision contained herein, this Agreement may be terminated if either party does not receive sufficient grant funds to carry out their purposes under the JAG program. Each party agrees to appropriate funds to continue its effort to apply for funding from the JAG program. If JAG funds are not awarded, the obligations of the parties shall terminate.

Section 6.

Before this Agreement can become effective and binding on either party, it must be approved by the respective governing bodies and the legal counsel of each party.

Section 7.

This Agreement shall remain in effect for the period of July 2, 2013, through September 30, 2014.

Section 8.

The County and the City, as co-applicants, agree to comply with the Standard Assurances provisions attached as Exhibit A to this Agreement.

Section 9.

This Agreement may be cancelled pursuant to Arizona Revised Statutes Section 38-511.

Approved by Resolution of the respective governing bodies hereto:

Dated: _____

Dated: _____

CITY OF FLAGSTAFF, AZ

COUNTY OF COCONINO, AZ

Gerald W. Nabours, Mayor

Board of Supervisors, Elizabeth C. Archuleta,
Chairwomen

ATTEST:

ATTEST:

City Clerk

Clerk of the Board

APPROVED AS TO FORM AND PROPER
AUTHORITY:

APPROVED AS TO FORM AND PROPER
AUTHORITY

City Attorney

Deputy County Attorney

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Bret Petersen, Project Manager
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Adoption of Ordinance No. 2013-15: Authorizing the transfer of City-owned property to the State of Arizona in accordance with the Purchase Agreement for APN 116-13-001C (Tract No. 1 in Warranty Deed - full taking) and APN 116-13-001D (Tract No. 2 Parcel 1 and 2 - partial taking), located adjacent to existing Beulah Blvd. near Fort Tuthill.

RECOMMENDED ACTION:

- 1) Read Ordinance No. 2013-15 by title only for the first time
- 2) City Clerk reads Ordinance No. 2013-15 by title only (if approved above)
- 3) Read Ordinance No. 2013-15 by title only for the final time on July 16, 2013
- 4) City Clerk reads Ordinance No. 2013-15 by title only (if approved above)
- 5) Adopt Ordinance No. 2013-15 on July 16, 2013

Policy Decision or Reason for Action:

Arizona Department of Transportation (ADOT) plans to construct improvements at the SR 89A/J.W.Powell Traffic Interchange (Airport T.I.) requiring right-of-way acquisition from several property owners including the City of Flagstaff (COF). In part, ADOT's project includes the realignment of Beulah Boulevard / SR 89-A crossing over two COF owned parcels.
Subsidiary Points: None

Financial Impact:

The City of Flagstaff will receive \$33,591.00 from ADOT for the property rights transfer in accordance with the attached Purchase Agreement. All costs associated with the construction of the project are funded by ADOT. Upon completion of the project, Beulah Blvd. and a portion of existing SR89A abandoned right-of-way will be transferred back to the City. Annual O&M costs are not expected to increase as the City is already maintaining Beulah Blvd.

Connection to Council Goal:

1. Repair Replace maintain infrastructure (streets & utilities)
2. Effective governance

Has There Been Previous Council Decision on This:

No, however the City Council will have an opportunity in the near future to consider an IGA defining maintenance obligations which will be effective upon completion of the project and once property rights are returned to the City. Staff is currently working with ADOT to complete the IGA.

ORDINANCE NO. 2013-15

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AUTHORIZING THE TRANSFER OF TITLE TO CITY PROPERTY WITHIN AND ADJACENT TO THE BEULAH ROAD RIGHT-OF-WAY LOCATED AT APPROXIMATELY AIRPORT ROAD AS IS MORE FULLY DESCRIBED AS TRACT ONE AND TRACT TWO, PARCELS 1 AND 2, IN EXHIBIT "A" TO THE STATE OF ARIZONA THROUGH THE ARIZONA DEPARTMENT OF TRANSPORTATION, AND PROVIDING AUTHORITY FOR THE CITY MANAGER TO EXECUTE ALL NECESSARY DOCUMENTS AND AUTHORITY FOR THE CITY CLERK TO MAKE CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City of Flagstaff (the "City") owns property within and adjacent to Beulah Road at approximately Airport Road, as is more fully described as Tract One and Tract Two Parcel 1 and 2 in Exhibit "A" to this Ordinance; and

WHEREAS, the City wishes to transfer the property to the State of Arizona through the Arizona Department of Transportation (the "State") because the State is constructing or reconstructing a roadway on the right-of-way; and

WHEREAS, the State will transfer a portion of the right-of-way back to the City at the conclusion of the construction project, as is more fully described in the Purchase Agreement;

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. That the City is hereby authorized to transfer title to the property to the State upon the State's fulfillment of the terms of the Purchase Agreement.

SECTION 2. That the City Manager is authorized to execute the Purchase Agreement and any other documents necessary to effectuate this transfer pursuant to the terms of the Purchase Agreement.

SECTION 3. The City Clerk is hereby authorized to correct typographical and grammatical errors, as well as errors of wording and punctuation, as necessary, related to this ordinance as amended herein, and to make formatting changes needed for purposes of clarity and form, or consistency within thirty (30) days following adoption by the City Council.

SECTION 4. This ordinance shall become effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council and approved by the Mayor of the City of Flagstaff this 16th day of July, 2013.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

ARIZONA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY GROUP

PURCHASE AGREEMENT

Title Company Empire West Title Agency
 Address 4808 N. 22nd Street, Suite 100
 City Phoenix Arizona
 Escrow Officer Sharon Dyke
 Escrow No. _____
 Grantor CITY OF FLAGSTAFF
 Address 211 W. Aspen Avenue; Flagstaff, AZ 86001
 Phone/Fax/Mobile/Email Michelle D'Andrea 928-213-2025

Date _____
(to be completed by Title Company, if applicable)
 Zip Code 85016
 Phone 602-749-7082
 Fax No. 602-674-3418

Grantee: The STATE OF ARIZONA, by and through its DEPARTMENT OF TRANSPORTATION (the "State")
 Mailing Address: Arizona Department of Transportation, Right of Way Group
 205 South 17th Avenue, MD 612E, Phoenix, Arizona 85007-3212

The STATE shall pay directly to the Grantor, or deposit with the Title Company ("Escrow Agent") if escrowed, the purchase price plus all lawful costs incidental to closing as follows:

Escrow Fees _____
 Title Policy Fees _____
TOTAL ESCROW & TITLE FEES \$0.00

Recording Fees

Deed _____
 Easement _____
 Release _____
TOTAL RECORDING FEES \$0.00

Other Charges

Release Fees _____
 SRVWUA Fee _____
 Prorated Taxes/Dates _____
TOTAL OTHER CHARGES \$0.00
 Subtotal Fees \$0.00

Title Report Credit _____
 Total Closing Costs \$0.00
 Land & Improvements* \$31,617.00

Temporary Construction Easement \$1,974.00

Total Purchase Price \$33,591.00
TOTAL WARRANT** \$0.00

Charges and disbursements to be paid from Grantor's funds as follows (check all that apply):

Total Acquisition of Grantor's Property: Full release of all monetary liens and encumbrances, and leases of any kind. Pay in full all due and delinquent real property taxes and general and special improvement assessments. Grantor will be charged for any costs necessary to make the property compliant with the Covenants, Conditions and Restrictions. Prorate the current year's real property taxes on closings that occur on or after the 3rd Monday of August each year. Escrow Agent shall withhold the prorated amounts from each party and pay the lien of the current year's taxes in full.

Partial Acquisition of Grantor's Property: Partial release of all monetary liens and encumbrances, and leases of any kind. At the discretion of State, pay due and delinquent property taxes and general and special improvement assessments, including full payment of taxes and assessments on individual assessor parcels within State's partial acquisition, and any Certificate(s) of Purchase. The current year's taxes shall not be prorated regardless of the closing date.

Easement(s): Consent to easement(s) by secured party(ies).

Other Disbursements:

Security Deposits and Prepaid Rents, if Applicable: Grantor agrees to return all security deposits and prepaid rents directly to lessee(s) outside of escrow.

Possession Date: Close of escrow/date of recording.

Special Conditions Right of Way Contract Yes No

Entry Agreement*** Yes No

***** If yes, State shall pay statutory interest on the "Total Purchase Price" from _____ to the close of escrow/date of recording directly to Grantor by separate warrant.**

Special Instructions/Information:

* Escrow and title policy fees based on this amount only.
 **Sum of "Total Closing Costs" and "Total Purchase Price" only.

THE GRANTOR, having executed a conveyance of certain real property rights to the GRANTEE in a certain conveyance dated described in Exhibit "A" attached hereto and made a part hereof, and having delivered same to the above Title Company as Escrow Agent, said agent is directed to deliver said conveyance to the STATE OF ARIZONA by and through its DEPARTMENT OF TRANSPORTATION; title to said property to pass upon the acceptance of delivery and possession by the ARIZONA DEPARTMENT OF TRANSPORTATION.

THIS PURCHASE AGREEMENT SHALL SERVE AS THE ESCROW INSTRUCTIONS

The Escrow Agent shall first apply the purchase price on deposit to satisfy such taxes, mortgage claims, leasehold interests, special assessments, fines, fees or charges to be paid to the homeowners association and other encumbrances as may be authorized for payment, and the balance thereof shall be paid in accordance with the terms hereof. If the subject property is encumbered with Covenants, Conditions and Restrictions, the Escrow Agent shall send a Notice of Pending Sale pursuant to A.R.S. 33-1806.

The Escrow Agent is to withhold ~~\$-0-~~ as a security and/or site-clearance deposit pending satisfactory delivery of the subject property to the State by the Grantor. Grantor agrees the State may apply the security deposit to payment of any unpaid rents due the State from the Grantor, or to payment for any loss or damage sustained by the State caused by the Grantor after the date of this agreement. The State will make written authorization to the Escrow Agent for disbursement of the security deposit in accordance with this agreement, after acceptance of delivery and possession of the subject property.

The Grantor is to notify the Arizona Department of Transportation, Right of Way Group, of the date Grantor intends to vacate the subject property.

Instructions to Escrow Agent: Deposit all escrowed funds in escrow account and disburse same by check; pay encumbrances in accordance with this agreement; prorate all agreed items; record such escrowed instruments as are necessary or proper in the issuance of title insurance; and pay the balance of the escrowed funds to the party or parties entitled thereto. It is further understood and agreed that the Title Company shall not be responsible for any liens or encumbrances not of record at the closing of escrow.

The Right of Way Group of the Arizona Department of Transportation will be furnished a copy of the Grantor's closing statement with the following certification signed by an authorized officer: "This is to certify this is a true and correct statement of disbursement of funds collected from the Arizona Department of Transportation."

The Escrow Agent is to request the Grantor acknowledge receipt of the amount shown on the closing statement as due Grantor. Either a copy of this request or a copy of a signed receipt is to be retained in the escrow file.

The State will pay the costs of any escrow services and/or title insurance desired by it, but may, at its option, waive escrow and/or title insurance. Upon such waiver, the references to Title Company, Escrow Agent, and title insurance herein are not applicable. If this transaction is not handled through a title company, the conveyance will be delivered direct to the State of Arizona and payment will be made direct from the Grantee to the Grantor after approval and acceptance by the Director of the Arizona Department of Transportation and the final filing and recording of the documents.

If cost-to-cure moneys have been paid to remove or relocate improvements on the property conveyed, Grantor agrees to remove all buildings and appurtenances including fences, floors other than concrete, plumbing lines above grade, and all combustible material not later than 30 days from the date of payment. The Grantor assumes all liability connected with said removal. It is further agreed that upon expiration of the time provided for removal, all improvements remaining partially or wholly upon the lands conveyed shall become the property of the State of Arizona, and all rights of the Grantor to said improvements shall cease and terminate. Grantor shall be liable for the reasonable costs incurred in removing said improvements. License is hereby granted to the State of Arizona to enter upon the Grantor's remaining lands where necessary to accomplish the purpose of this agreement.

If the State is acquiring only a portion of Grantor's property, then Grantor grants to the State, its agents, employees and contractors, the right to enter Grantor's remaining property as necessary for utility reconnection, driveway reconnection, facilitating removal of buildings or appurtenances where portions of acquired buildings or appurtenances are situated on Grantor's remaining property, and to facilitate sound wall construction on adjacent State-owned right of way, if required. It is further understood and agreed that this temporary right will expire and terminate thirty (30) days after completion of State's project

It is understood and agreed the consideration expressed herein is accepted by the Grantor as full and complete compensation for the interest being acquired, and in settlement for all injury or damage to the Grantor's remaining abutting lands. Further, said consideration shall constitute a waiver of any and all claims for damages or compensation to said abutting lands that may hereafter arise or result from the establishment and construction of the highway in the manner proposed by the State; except for the negligent or intentional actions of ADOT and its agents resulting in bodily injury or property damage, other than severance or economic damage, to the Grantor's abutting lands.

State is acquiring Grantor's property through its right of eminent domain under threat of condemnation; therefore, it is not a voluntary sale in the ordinary course of real estate negotiation. Further, the settlement herein is in lieu of condemnation and not admissible as evidence of value, nor for any other evidentiary purpose, in conjunction with any judicial or administrative proceeding.

- Yes No Addendum attached hereto and made part hereof.
- Notice of Pending Sale pursuant to A.R.S 33-1806.

The STATE OF ARIZONA, by and through its DEPARTMENT OF TRANSPORTATION

By _____
Sandra Kennedy, Right of Way Agent

GRANTOR: CITY OF FLAGSTAFF

Date:

Approved by the Director of the Arizona Department of Transportation _____ 20 ____

Date:

Accepted: STATE OF ARIZONA _____ 20 ____

Accepted _____ Date _____
ESCROW OFFICER

By _____
RIGHT OF WAY MANAGER

**ADDENDUM
PURCHASE AGREEMENT
ADOT Parcel No.**

Notwithstanding anything to the contrary in the printed-form Purchase Agreement to which this is an addendum, Grantor and State further agree as follows:

1. Following completion of project construction, the Arizona Department of Transportation (ADOT) Will extinguish State right-of-way interest in and to old SR 89A and Beulah Boulevard, to the City Of Flagstaff.
2. Existing utilities easements previously located within the Beulah Boulevard right-of-way will be preserved and protected as part of the ADOT extinguishment of the Beulah Boulevard right-of-way.
3. New utilities added as a result of the current project will be handled and permitted by ADOT until the right-of-way is extinguished by ADOT to the City. After the right-of-way is returned to the City, the City will handle all permitting.
4. The first three (3) items listed in this Purchase Agreement Addendum will be included within the Joint Project Agreement between ADOT and the City of Flagstaff to determine when the City of Flagstaff's obligation to maintain the roadway begins.

GRANTOR: CITY OF FLAGSTAFF

Date

Date

Date

Date

Accepted: STATE OF ARIZONA _____ 20 ____

By _____
RIGHT OF WAY MANAGER

Accepted _____ Date _____
ESCROW OFFICER

Sandra Kennedy, Right of Way Agent

Approved by the Director of the
Arizona Department of Transportation _____ 20 ____

(date only)

WHEN RECORDED RETURN
TO ARIZONA DEPARTMENT
OF TRANSPORTATION,
R/W OPERATIONS SEC.
205 S. 17TH AVE., MD 612E
PHOENIX, AZ 85007-3212

Escrow No.

EXEMPT FROM AFFIDAVIT
BY A.R.S. §11-1134-A-3

ARIZONA DEPARTMENT OF TRANSPORTATION

WARRANTY DEED

CITY OF FLAGSTAFF, a Municipal Corporation, the Grantor, for the consideration of TEN DOLLARS AND OTHER VALUABLE CONSIDERATION, does hereby grant, convey and warrant to the **STATE OF ARIZONA**, by and through its **Department of Transportation**, the Grantee, that certain real property situated in Coconino County, Arizona, more particularly described as:

SEE EXHIBIT "A" ATTACHED HERETO

AND BY REFERENCE MADE A PART HEREOF.

SUBJECT TO current taxes and assessments, reservations and all easements, rights of way, covenants, conditions, restrictions, liens and encumbrances of record.

PROJECT: 089A CN 399 H4134
A89-B(002)A

LOCATION: Airport Road (J.W. Powell Blvd)

PARCEL: 3-1144

sw 01-30-2013

DESCRIPTION FOR FEE ESTATE

TRACT NO. 1:

A parcel of land located in the Southwest quarter of Section 5 and the Northwest quarter of Section 8, Township 20 North, Range 7 East, Gila and Salt River Base and Meridian, Coconino County, Arizona, being a portion of that land described in Docket 5, page 187, as recorded in the Coconino County, Arizona Recorder's Office, and more particularly described as follows:

BEGINNING at the Southwest corner of said Section 5;

THENCE North 00 degrees 30 minutes 07 seconds East (M), (Basis of Bearing), North 00 degrees 27 minutes 29 seconds West (record) along the West line of said Section 5, a distance of 261.70 feet (C) to a point on the West right of way line of U.S. Highway 89A, (now S.R. 89A), said point also being the beginning of a nontangent curve to the left, concave to the Northeast, with a radial bearing of North 82 degrees 37 minutes 42 seconds East (C), a central angle of 01 degrees 03 minutes 48 seconds (C) and a radius of 3085.16 (C) feet, 3066.00 feet (R);

THENCE Southeasterly along said curve and right of way line, a distance of 57.26 feet (C);

THENCE South 08 degrees 26 minutes 06 seconds East South 09 degrees 26 minutes 15 seconds East (R), along said right of way line, a distance of 471.35 feet (C), to the beginning of a curve to the right, concave to the Northwest, with a radial bearing of South 81 degrees 33 minutes 54 seconds West (C), a central angle of 34 degrees 31 minutes 54 seconds (C), and a radius of 1028.14 (C), 934.00 feet (R);

THENCE Southwesterly along said curve and right of way line, a distance of 619.65 feet (C) to a point on the West line of said Section 8;

THENCE North 00 degrees 57 minutes 13 seconds East (M), North 00 degrees 05 minutes 22 seconds West (R), along the West line of said Section 8, a distance of 864.47 feet (C), to the POINT OF BEGINNING.

EXCEPT all uranium, thorium, and all other materials determined pursuant to Section 5 (b) (1) of the Atomic Energy Act of 1946 (60 Stat.761) to be peculiarly essential to the production of fissionable material contained in whatever concentration if deposits of the lands.

(continued)

EXHIBIT "A"

PAGE 1

TOGETHER with, any and all of the Grantor's fee interest in and to all of the highway right of way for State Route 89A (PRESCOTT-FLAGSTAFF HIGHWAY), if any.

TRACT NO. 2:

Parcel No. 1:

That portion of the Grantors' property that is described in the following **PROPERTY DESCRIPTION** located in the Southwest quarter of Section 5, Township 20 North, Range 7 East, Gila and Salt River Base and Meridian, Coconino County, Arizona, being a portion of that land described in Docket 5, page 187, office of the Coconino County Recorder, Arizona, lying southerly of the following **NEW RIGHT OF WAY DESCRIPTION:**

PROPERTY DESCRIPTION:

A parcel of land located in the Southwest quarter of Section 5, Township 20 North, Range 7 East, Gila and Salt River Base and Meridian, Coconino County, Arizona, being a portion of that land described in Docket 5, page 187, office of the Coconino County Recorder, Arizona, and more particularly described as follows:

BEGINNING at the West quarter corner of said Section 5;

THENCE South 89 degrees 17 minutes 03 seconds East (M), (Basis of Bearing), North 89 degrees 45 minutes 08 seconds East (R), along the mid-section line, a distance of 445.85 feet (C) to a point on the Westerly right of way line of U.S. Highway 89A, (now S.R. 89A);

THENCE South 18 degrees 16 minutes 34 seconds West (C), South 17 degrees 17 minutes 15 seconds West (R), along said right of way line, a distance of 1073.37 feet (C), 1060.32 feet (R) to the beginning of a curve to the left, concave to the Southeast, with a radial bearing of South 71 degrees 43 minutes 26 seconds East (C), a central angle of 09 degrees 54 minutes 02 seconds (C), and a radius of 3085.16 feet (C), 3066.0 feet, (R);

THENCE Southwesterly along said curve and right of way line, a distance of 533.11 feet (C) to a point on the West line of said Section 5;

(continued)

EXHIBIT "A"

PAGE 2

THENCE North 00 degrees 30 minutes 07 seconds East (M), North 00 degrees 27 minutes 29 seconds West (R), along the West line of said Section 5, a distance of 1542.97 feet (C) to the West quarter corner of Section 5, and the POINT OF BEGINNING.

EXCEPT all uranium, thorium, and all other materials determined pursuant to Section 5 (b) (1) of the Atomic Energy Act of 1946 (60 Stat. 761) to be peculiarly essential to the production of fissionable material contained in whatever concentration of deposits of the lands.

NEW RIGHT OF WAY LINE DESCRIPTION:

Commencing at a City of Flagstaff aluminum cap marking the West quarter corner of said Section 5 from which a Bureau of Land Management (BLM) brass cap marking the Southwest corner of said Section 5 bears South 00°39'14" East 2649.93 feet;

thence along the West line of said Section 5 South 00°39'14" East 1505.98 feet to the POINT OF BEGINNING;

thence South 86°39'06" East 66.80 feet to the POINT OF ENDING, said POINT OF ENDING being 100.00 feet northerly of and at right angle to the J.W. Powell Construction Centerline Station 23+46.01.

TOGETHER with, any and all of the Grantor's fee interest in and to all of the highway right of way for said State Route 89A, if any.

Parcel No. 2:

That portion of the above described **PROPERTY DESCRIPTION** in the Northwest quarter of the Southwest quarter (NW¼SW¼) of Section 5, Township 20 North, Range 7 East, Gila and Salt River Meridian, Coconino County, Arizona, which lies between the following described **NEW RIGHT OF WAY LINE NO. 1 and LINE NO. 2:**

NEW RIGHT OF WAY LINE NO. 1 DESCRIPTION:

Commencing at a City of Flagstaff aluminum cap marking the West quarter corner of said Section 5 from which a Bureau of Land Management (BLM) brass cap marking the Southwest corner of said Section 5 bears South 00°39'14" East 2649.93 feet;

(continued)

EXHIBIT "A"

PAGE 3

thence along the West line of said Section 5 South 00°39'14" East 690.72 feet to the POINT OF BEGINNING;

thence North 44°21'42" East 56.08 feet;

thence along a curve to the Left, having a radius of 1537.02 feet, a length of 730.55 feet;

thence North 17°07'45" East 33.38 feet to the East-West mid section line of said Section 5;

thence along said East-West mid section line of Section 5 North 89°33'30" East 35.66 feet to the POINT OF ENDING on the existing northwesterly right of way line of said State Route 89A.

NEW RIGHT OF WAY LINE NO. 2 DESCRIPTION:

Commencing at said West quarter corner of Section 5;

thence along said West line of Section 5 South 00°39'14" East 976.84 feet;

thence from a Local Tangent Bearing of North 39°42'14" East, along a curve to the Right, having a radius of 718.51 feet, a length of 58.41 feet;

thence North 44°21'42" East 200.00 feet;

thence along a curve to the Left, having a radius of 1737.02 feet, a length of 305.94 feet to the POINT OF ENDING being 100.00 feet southeasterly of and at right angle to State Route 89A Construction Centerline Station 485+43.98.

EXCEPT all uranium, thorium, and all other materials determined pursuant to Section 5 (b) (1) of the Atomic Energy Act of 1946 (60 Stat. 761) to be peculiarly essential to the production of fissionable material contained in whatever concentration in deposits of the lands.

TOGETHER with, any and all of the Grantor's fee interest in and to all of the highway right of way for said State Route 89A, if any.

EXHIBIT "A"

PAGE 4

ARIZONA DEPARTMENT OF TRANSPORTATION
TEMPORARY CONSTRUCTION EASEMENT

The undersigned Grantor, for the consideration of ONE DOLLAR AND OTHER VALUABLE CONSIDERATION, does hereby grant to the **STATE OF ARIZONA**, by and through its **Department of Transportation**, hereinafter termed Grantee, an exclusive temporary construction easement ("TCE") for use by its agents and contractors under Grantee's direction, for construction in connection with the construction of Project No. 089A CN 399 H4134 01C of the **PRESCOTT-FLAGSTAFF Highway** (the "Project") across that certain real property situated in Coconino County, Arizona, described as:

That portion of the Northwest quarter of the Southwest quarter (NW $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 5, Township 20 North, Range 7 East, Gila and Salt River Meridian, Coconino County, Arizona, as shown in red on the plat(s) attached hereto and made a part hereof (the "Property").

To the extent practicable, Grantee shall leave the Property in the same condition as existing immediately prior to Grantee's entry.

It is further understood and agreed that this TCE is to expire and terminate thirty (30) days after the completion of the Project.

Signed on the _____ day of _____, 20_____.

GRANTOR

PRINTED NAME

PRINTED NAME

**Approved by the Director of the Arizona
Department of Transportation**

_____, 20_____

(Date Only)

PRINTED NAME

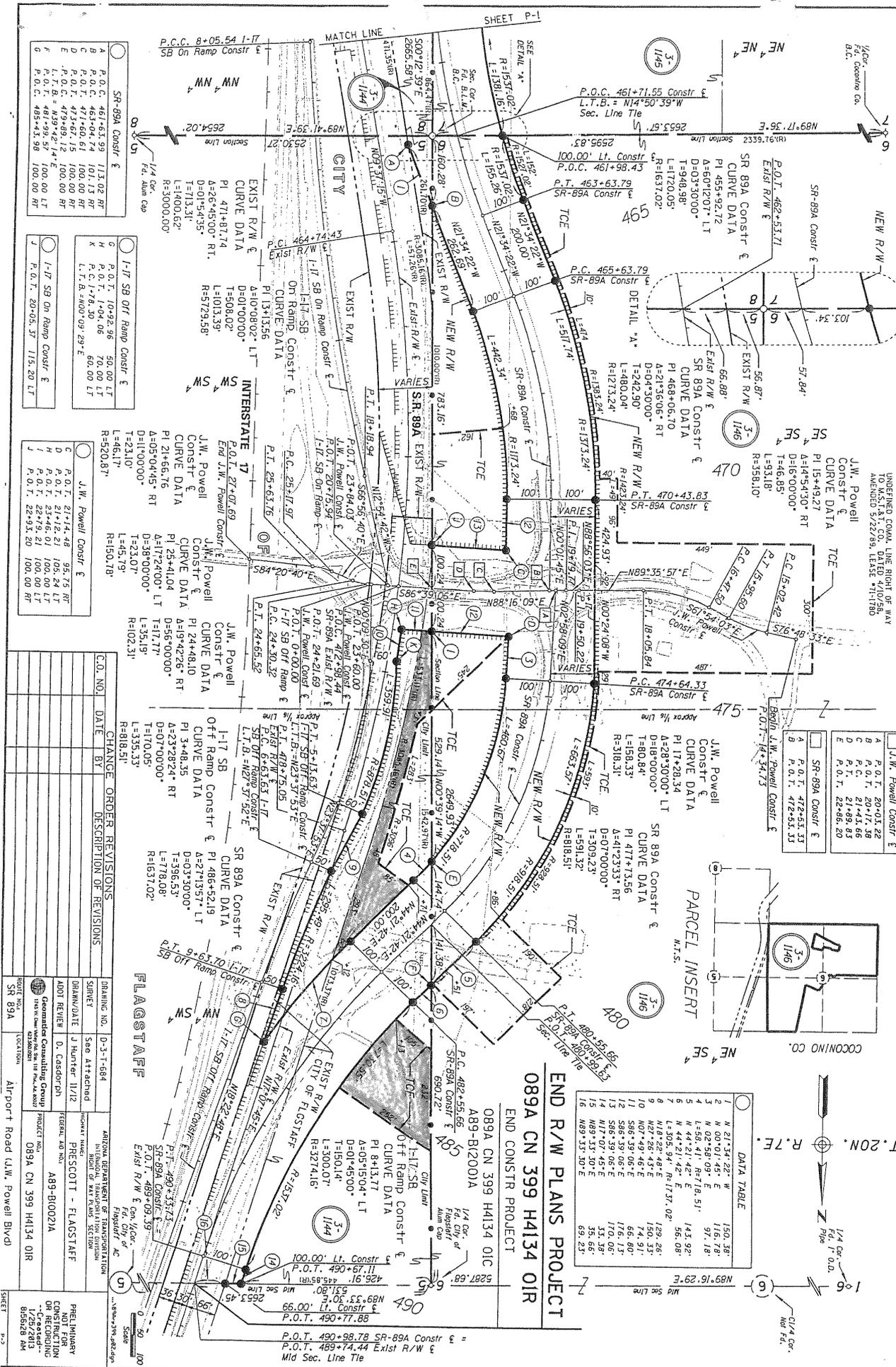
PRINTED NAME

Accepted: STATE OF ARIZONA

_____, 20_____

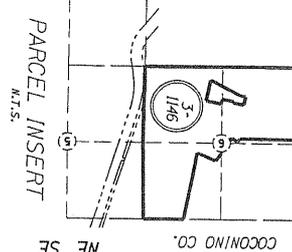
By _____

Right of Way Manager



UNDERSIGNED CONF. LINE RIGHT OF WAY
 TO M.S.L. & T. CO. DATED 10/05/50
 AMENDED 5/22/89, LEASE #11-1780

SR-89A Constr. €	P.O.T. 20+01.22
J.W. Powell Constr. €	P.O.T. 21+43.66
	P.O.T. 21+89.83
	P.O.T. 22+86.20
	P.O.T. 42+53.33
	P.O.T. 42+53.33



DATA TABLE	150.38'
1	N 21°34'22"W
2	N 00°01'45"E
3	N 02°58'09"E
4	N 44°21'42"E
5	N 44°21'42"E
6	N 305°94'17"E
7	N 27°28'43"E
8	N 27°28'43"E
9	N 66°19'46"E
10	N 58°39'08"E
11	N 58°39'08"E
12	N 17°07'45"E
13	N 17°07'45"E
14	N 89°33'30"E
15	N 89°33'30"E
16	N 89°33'30"E

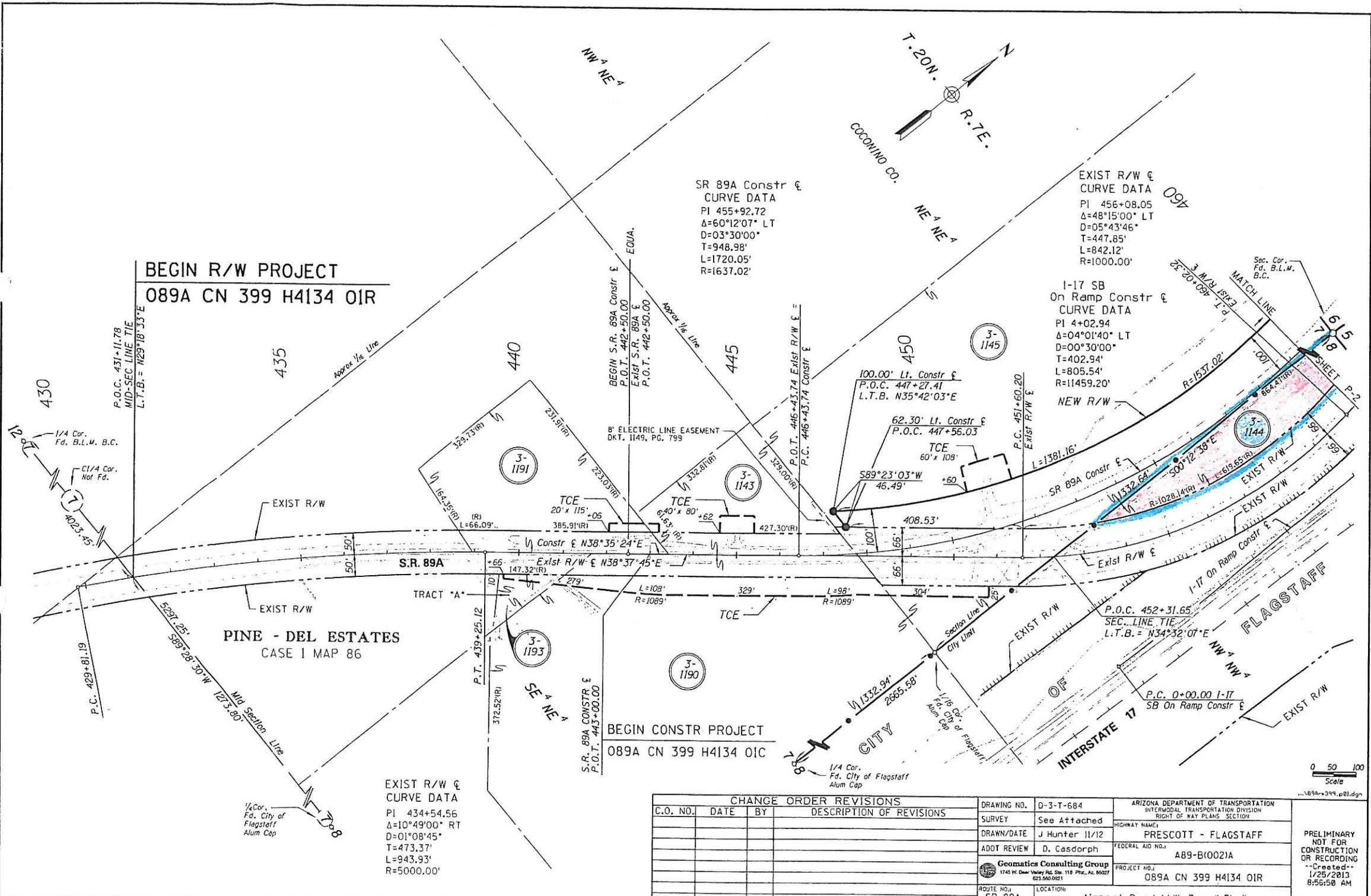
END R/W PLANS PROJECT
089A CN 399 H4134 OIR
 END CONSTR PROJECT

089A CN 399 H4134 OIR
 A89-BI2001A
 1/4 Cor. of
 F&A City of
 Member

NO.	DATE	BY	DESCRIPTION OF REVISIONS
1	03-1-1984	J Hunter	See Attached
2	03-1-1984	D. Casdorff	PRESCOTT - FLAGSTAFF
3	03-1-1984	D. Casdorff	PRESCOTT - FLAGSTAFF

FLAGSTAFF
 AIRPORT ROAD (J.W. POWELL DIV.)

PRELIMINARY
 NOT FOR
 CONSTRUCTION
 RECORDING
 1/25/2013
 8:58:08 AM



BEGIN R/W PROJECT
089A CN 399 H4134 OIR

SR 89A Constr &
CURVE DATA
PI 455+92.72
Δ=60°12'07" LT
D=03°30'00"
T=948.98'
L=1720.05'
R=1637.02'

EXIST R/W &
CURVE DATA
PI 456+08.05
Δ=48°15'00" LT
D=05°43'46"
T=447.85'
L=842.12'
R=1000.00'

1-17 SB
On Ramp Constr &
CURVE DATA
PI 4+02.94
Δ=04°01'40" LT
D=00°30'00"
T=402.94'
L=805.54'
R=11459.20'

PINE - DEL ESTATES
CASE 1 MAP 86

BEGIN CONSTR PROJECT
089A CN 399 H4134 OIR

EXIST R/W &
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CHANGE ORDER REVISIONS			DRAWING NO.	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION RIGHT OF WAY PLANS SECTION	
C.O. NO.	DATE	BY	D-3-T-684	HIGHWAY NAME:	
			See Attached	PRESCOTT - FLAGSTAFF	
			J Hunter 11/12	FEDERAL AID NO.:	
			D. Casdorff	A89-B(002)A	
				PROJECT NO.:	
				089A CN 399 H4134 OIR	
				ROUTE NO.:	
			SR 89A	LOCATION:	
				Airport Road (J.W. Powell Blvd)	
				SHEET P-1	

PRELIMINARY
NOT FOR
CONSTRUCTION
OR RECORDING
Created--
1/25/2013
8:56:58 AM

JAN 25 2013

CITY OF FLAGSTAFF STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From: Brandi Suda, Finance Manager
Co-Submitter: Rick Tadder, Finance Director
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Adoption of Ordinance No. 2013-13: AN ORDINANCE LEVYING UPON THE ASSESSED VALUATION OF THE PROPERTY WITHIN THE CITY OF FLAGSTAFF, ARIZONA, SUBJECT TO TAXATION A CERTAIN SUM UPON EACH ONE HUNDRED DOLLARS (\$100.00) OF VALUATION SUFFICIENT TO RAISE THE AMOUNT ESTIMATED TO BE REQUIRED IN THE ANNUAL BUDGET, LESS THE AMOUNT ESTIMATED TO BE RECEIVED FROM OTHER SOURCES OF REVENUE; PROVIDING FUNDS FOR VARIOUS BOND REDEMPTIONS, FOR THE PURPOSE OF PAYING INTEREST UPON BONDED INDEBTEDNESS AND PROVIDING FUNDS FOR GENERAL MUNICIPAL EXPENSES, ALL FOR THE FISCAL YEAR ENDING THE 30TH DAY OF JUNE, 2014.

RECOMMENDED ACTION:

- 1) Read Ordinance No. 2013-13 by title only for the final time on July 2, 2013
- 2) City Clerk reads Ordinance No. 2013-13 by title only for the final time (if approved above)
- 3) Adopt Ordinance No. 2013-13

Policy Decision or Reason for Action:

Arizona Revised Statute 42-17104 requires that an Ordinance to adopt property tax levies be passed after the adoption of the final budget. The final budget was adopted on June 18, 2013, and first reading of this Ordinance was held at that time.

Financial Impact:

The City of Flagstaff is proposing a flat primary property levy on existing properties for the FY2013-2014 base levy of \$5,426,095 plus the new construction levy of \$94,078 for a total levy of \$5,520,173. The primary property tax rate to support this levy is \$0.8429 per \$100 of assessed valuation.

The City of Flagstaff proposing a flat tax rate for secondary property taxes for FY2013-2014 for a total levy of \$5,530,453. The proposed secondary property tax rate is \$0.8366 per \$100 of assessed valuation.

Connection to Council Goal:

Effective governance

Has There Been Previous Council Decision on This:

- Budget Retreats on November 14 & 15, 2012 & February 14, 2013
- Mini Budget Retreats on December 12, 2012, January 11 & 22, 2013 & February 4, 2013
- Council Budget Meetings on April 24, 25, and 26, 2013
- Tentative Budget Adoption on June 4, 2013
- Final Budget Adoption on June 18, 2013
- First reading of Ordinance No. 2013-13 held on June 18, 2013

Options and Alternatives:

- Adopt the primary and secondary property tax rates at the proposed amounts,
- Adopt the primary property levy up to the maximum statutory levy; adopt the secondary property tax rate at something greater than proposed above
- Adopt the primary and secondary property tax rates at something less than that shown above.

Background/History:

Both the State Constitution and State law specify a property tax levy limitation system. This system consists of two levies, a limited levy known as the primary property tax levy and an unlimited levy referred to as the secondary property tax levy. The primary levy may be imposed for all purposes, while the secondary levy in cities and towns may only be used to retire the principal and interest or redemption charges on general obligation bonded indebtedness.

The adoption of the property tax levy is the final step in the entire budget approval process.

Key Considerations:

The key dates for budget and property tax levy adoption have been determined and have been followed throughout this process. The County adopts the property tax levy as proposed by the City on or about August 1, 2013.

Expanded Financial Considerations:

The City has budgeted a total of \$5,355,000 in FY2013-2014 primary property tax, an approximate 2.0% increase over the FY2012-2013 budget. This increase is due to new construction and reduced delinquencies. Primary property tax funds any general purpose use of the city government. The budgeted amount is less than the levy as the City is allowing for approximately 3% in bad debt.

Statutorily, the maximum allowable primary property levy for FY2013-2014 is \$5,742,768. The City can capture this additional levy in future budget years if Council so directs.

The City has budgeted a total of \$5,530,453 in FY2013-2014 secondary property tax, an approximate 13.6% decrease over the FY2012-2013 budget. The decrease is directly related to the decreased assessed valuation experienced in our community. Secondary property tax funds general obligation debt and debt is issued to manage within the levy.

Five years historical data is shown below:

Property Tax Rates	FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2012-2013	FY 2013-2014 Proposed
Primary	\$0.6547	0.6479	0.6917	0.7131	0.8429
Secondary	0.8366	0.8366	0.8366	0.8366	0.8366
Total	\$ 1.4913	1.4845	1.5283	1.5497	1.6795

Primary property taxes account for 9.6% of the General Fund revenues budgeted for FY2013-2014.

Community Benefits and Considerations:

Primary property taxes support a number of City services including public safety, parks and recreation, other public works services, and general administrative and management functions within the city.

Secondary property taxes support the debt service payment on numerous city capital projects including: Aquaplex, Fire Stations, Open Space, numerous street/utility projects, Forest Restoration and the future Core Facility as well as many others.

Community Involvement:

Inform & Involve: Budget legal schedules were published in the June 6, 2013 and June 13, 2013 Arizona Daily Sun to allow for additional community review. In addition, the legal and other budget schedules were made available at City Hall, at both Flagstaff Public Libraries, and on the official city website. A public hearing on June 18, 2013 for both the final budget adoption and the property tax levy is open for public comment and allows citizens to provide input.

Attachments: [Ord2013.13](#)

ORDINANCE NO. 2013-13

AN ORDINANCE LEVYING UPON THE ASSESSED VALUATION OF THE PROPERTY WITHIN THE CITY OF FLAGSTAFF, ARIZONA, SUBJECT TO TAXATION A CERTAIN SUM UPON EACH ONE HUNDRED DOLLARS (\$100.00) OF VALUATION SUFFICIENT TO RAISE THE AMOUNT ESTIMATED TO BE REQUIRED IN THE ANNUAL BUDGET, LESS THE AMOUNT ESTIMATED TO BE RECEIVED FROM OTHER SOURCES OF REVENUE; PROVIDING FUNDS FOR VARIOUS BOND REDEMPTIONS, FOR THE PURPOSE OF PAYING INTEREST UPON BONDED INDEBTEDNESS AND PROVIDING FUNDS FOR GENERAL MUNICIPAL EXPENSES, ALL FOR THE FISCAL YEAR ENDING THE 30TH DAY OF JUNE, 2014

RECITALS:

WHEREAS, by the provisions of State law, the ordinance levying taxes for fiscal year 2013-2014 is required to be finally adopted not later than the third Monday in August; and

WHEREAS, the County of Coconino is the assessing and collecting authority for the City of Flagstaff.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. There is hereby levied on each one hundred dollars (\$100.00) of the assessed value of all property, both real and personal within the corporate limits of the City of Flagstaff, except such property as may be by law exempt from taxation, a primary property tax rate of 0.8429 for the fiscal year ending on the 30th day of June, 2014. If this tax rate exceeds the maximum levy allowed by law, the Board of Supervisors of the County of Coconino is hereby authorized to reduce the levy to the maximum allowable by law after providing notice to the City.

SECTION 2. In addition to the rate set in Section 1 hereof, there is hereby levied on each one hundred dollars (\$100.00) of the assessed value of all property, both real and personal within the corporate limits of the City of Flagstaff, except such property as may be by law exempt from taxation, a secondary property tax rate of 0.8366 for the fiscal year ending June 30, 2014.

SECTION 3. Failure by the county officials of Coconino County, Arizona, to properly return the delinquent list, any irregularity in assessments or omissions in the same, or any irregularity in any proceedings shall not invalidate such proceedings or invalidate any title conveyed by any tax deed; failure or neglect of any officer or officers to timely perform any of the duties assigned to him or to them shall not invalidate any proceedings or any deed or sale pursuant thereto, the validity of the assessment or levy of taxes or of the judgment of sale by which the collection of the same may be enforced shall not affect the lien of the City of Flagstaff upon such property for the delinquent taxes unpaid thereon; overcharge as to part of the taxes or of costs shall not invalidate any proceedings for the collection of taxes or the foreclosure of the lien thereon or a sale of the property under such foreclosure; and all acts of officers de facto shall be valid as if performed by officers de jure.

SECTION 4. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

SECTION 5. That the Clerk is hereby directed to transmit a certified copy of this ordinance to the County Assessor and the Board of Supervisors of the County of Coconino, Arizona.

SECTION 6. Effective Date. The tax levies imposed by this Ordinance shall take effect Aug 2, 2013.

PASSED AND ADOPTED by the City Council and approved by the Mayor of the City of Flagstaff this _____ day of _____, 2013.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Glorice Pavey, Recreation Supervisor
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Approval of Street Closure(s): Hopi Market Arts and Craft Festival.

RECOMMENDED ACTION:

Approve the street closure at Aspen Avenue between San Francisco Street and Leroux Street on 9/28/13 at 6 am through 9/29/13 at 6 pm.

Policy Decision or Reason for Action:

Subsidiary Decisions Points: By allowing the Hopi Market Arts and Craft Show as an exception to the special event permit regulations regarding the full closure of Aspen Avenue between San Francisco Street and Leroux Street, the City is providing a safe location for a community event.

Financial Impact:

Street closures have the potential to change traffic patterns for local businesses.

Connection to Council Goal:

Diversity of arts, culture and educational opportunities.

Has There Been Previous Council Decision on This:

Other special events have received this exception in the past.

Members of City Council have asked that this agenda item return in two weeks in order to assess the public outreach and revised site plan.

Options and Alternatives:

Deny the request to close the proposed downtown streets.

- Pro: Closure of streets in the north downtown area has the potential to negatively impact business in this area. By not allowing the closure, these north downtown businesses and residents could count on the ordinary flow of traffic and parking.
- Con: This is a well-attended community event that brings visitors into the downtown area. The street closure will allow the show to expand and grow.

Background/History:

The Hopi Market is sponsored by the Hopi Tribe's Economic Development Corporation to provide an opportunity for Native American artisans to sell their arts and crafts. Additionally, this gives the Hopi Tribe an opportunity to share their life and culture through educating the public with art, dance and traditional foods. The market is in its fourth year and has annually drawn over 1000 residents and visitors into the downtown area.

Key Considerations:

The current special event permit regulations do not allow for the full closure of one-way downtown streets. Deviations from the special event permit packet have been approved by City Council on a case-by-case basis.

Expanded Financial Considerations:

Street closures have the potential to change traffic patterns for local businesses.

Community Benefits and Considerations:

The Hopi Market draws approximately 1000 residents and visitors to the historic downtown area and may generate tourism and business for Flagstaff hotels and restaurants. The Hopi Market provides an educational opportunity for residents and visitors through the sale and display of art, crafts and food.

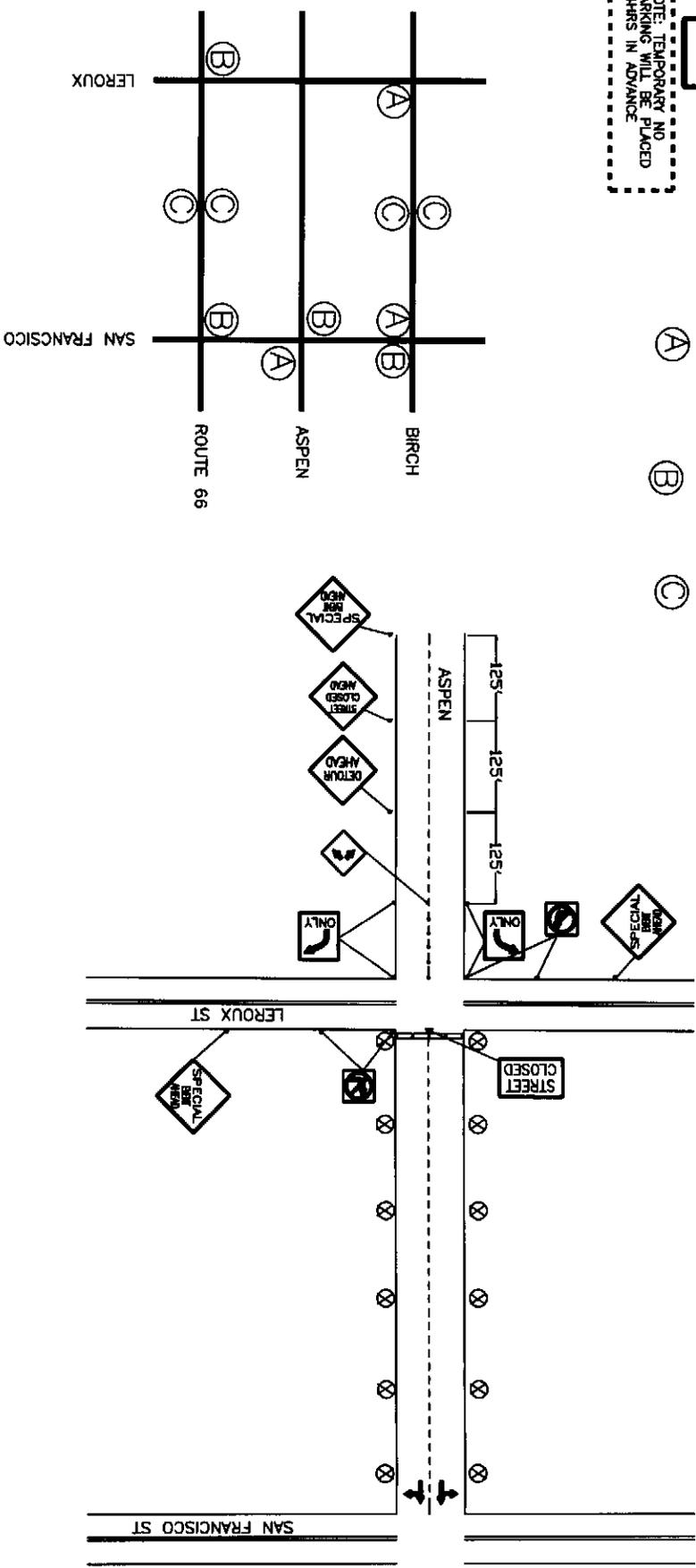
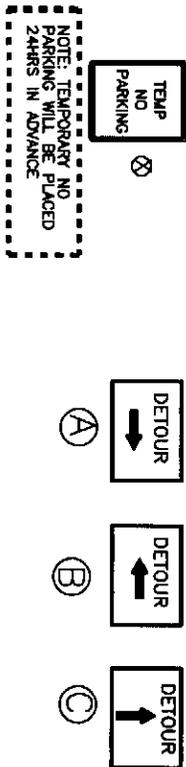
Community Involvement:

The public participation goal of collaborate has been chosen: The Hopi Tribe hopes to bring together the businesses and residents for a successful arts and craft festival. The June and July Downtown Newsletter informed residents and local downtown businesses of the date and time that this agenda item will be presented to City Council. Additionally, the Hopi Economic Development Corporation has conducted outreach with surrounding businesses and met with the Downtown Business Alliance on June 17, 2013.

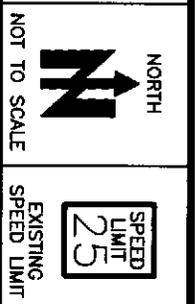
The Police Department has no concerns with this permit and recommends approval.

Attachments: Traffic Control Plan
 Site Plan for Aspen Ave

FOREMAN - USA
 PHONE: 928-522-8675
 DATE: 28 SEP 10 TO 29 SEP 13
 TIME: 6AM TO 6PM



RoadSafe
 TRAFFIC SYSTEMS
 OFFICE: 602-243-1218
 FAX: 602-243-3470



LEGEND

SIGN AND LIGHT TYPE (IF APPLICABLE)
 SIZE: 36" x 36" X 48" x 48"
 LIGHT: TYPE A TYPE B
 CHANNELIZING DEVICE TANGENT 40' CENTERLINE N/A
 HIGH LEVEL TYPE I/TYPE II TYPE III

TRAFFIC CONTROL PLAN # 1

CONTRACTOR: HOPI TRIBE
 LOCATION: ASPEN AVE & LEROUX
 TIME USAGE: 24HRS
 AGENCY: CITY OF FLAGSTAFF

START DATE: 28 SEPT 13
 DRAWN BY: GREG MONTEZ
 DATE: 22 MAY 13



Fourteen 6' x 2 tables (facing ↗)
Twenty-eight 10' x 10' tents (facing ↘)

Fourteen 6' x 2 tables (facing ↗)

bing

0 20 40 m

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Dan Musselman, Police Lieutenant, Police Department
Co-Submitter: Rick Compau
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Approval of Contract: Fiscal year 2014 funding for Intake triage Services to include an Alcohol Stabilization Unit (ASU) at the Guidance Center.

RECOMMENDED ACTION:

Award the service contract to The Guidance Center, Inc. in the amount of \$74,250 for fiscal year 2014 to provide Intake Triage Services to include an Alcohol Stabilization Unit.

Policy Decision or Reason for Action:

In calendar year 2012, the Alcohol Stabilization Unit (ASU) served 896 individuals. The primary function of the ASU is to monitor the consumer's safe withdrawal from alcohol and encourage them to commit to long-term treatment services. The average length of stay in fiscal year 2012 was 2.84 days. All consumers are given a list of community resources at the time of discharge. With continued funding, the ASU can continue to provide this service to the Flagstaff community.

Financial Impact:

\$74,250 for fiscal year 2014 if approved. This amount is budgeted in [001-6403-560-2804](#). Other stakeholders contribute annually to operate only the ASU and not other programs, as follows:

Northern Arizona Regional Behavior Health Authority (NARBHA), \$780,000

Coconino County, \$36,000

The Guidance Center also charges ACHSS for all Navajo citizens who are on ACHSS. In 2012, The Guidance Center recouped \$65,000 from charges submitted to ACHSS.

Connection to Council Goal:

Connection to Council Goal: Effective Governance (Public Safety): The ASU provides a system of care to accept chronic alcoholics. This keeps them away from the Emergency Department, off the streets and out of jail. Through continuing treatment and referral, the ASU seeks to return productive citizens back to the community.

Previous Council Decision on This:

In 2006, the Council supported a multi-year service agreement, which expired in 2011. Subsequent one (1) year agreements have been approved by Council.

Options and Alternatives:

1. The council may approve the service agreement in the amount of \$74,250 for fiscal year 2014 and allow for subsequent annual renewals for supplemental periods of up to four (4) additional one (1) year terms.
2. The Council may choose not to continue monetary assistance.

Background/History:

In 2001, the United Way chartered a community work group to address the issue of public intoxicants and available services. This followed the deaths of three (3) individuals from alcohol related to exposures. A chemical withdrawal unit was recommended at that time, but could not be established.

In 2006, a service agreement was made between the City of Flagstaff and the Guidance Center to establish and maintain a detoxification unit. This unit is now referred to as the Alcohol Stabilization Unit and is located at the Guidance Center.

The City has satisfied its funding obligation to the Guidance Center based on the 2006 agreement, which expired in fiscal year 2011. Additional one (1) year agreements/extensions have been approved by Council. The City and community would benefit from the continued operation of the ASU, therefore this is a request to continue funding for fiscal year 2014 in the amount of \$74,250 and allow for the service agreement to be renewable for supplemental periods of up to four (4) additional one (1) year terms.

A request for proposal (RFP) was conducted in May of 2013. The Guidance Center was the only organization to respond to the RFP. Their proposal response was evaluated and scored and was determined to be responsive and advantageous to the City. The initial term of the contract shall be for one year. The contract may be renewed for supplemental periods of up to four (4) additional one (1) year terms.

Key Considerations:

The Flagstaff Police Department, as well as many social service agencies, utilize the detoxification services of the Alcohol Stabilization Unit on a regular basis. ASU staff members assist consumers in making appointments or referrals and if necessary, provide transportation to medical, dental, vision, therapy or other necessary care. These services were not provided prior to the establishment of these services at the Guidance Center.

Expanded Financial Considerations:

\$74,250 for fiscal year 2014. If the agreement is renewed for the additional four (4), one (1) year terms, the total cost of those four (4) years would be an additional \$297,000.

Community Benefits and Considerations:

The on-going operation of the ASU for initial detoxification and care of publicly intoxicated persons, or others suffering from substance abuse, provides an important, charitable and valuable public benefit to the Flagstaff Community. It results in less persons being sent to the Flagstaff Medical Center Emergency Room. Police agencies, Guardian Medical, and community service organizations now have another entry point for individuals in need of services. Consumers may also self-present and are able to access a full continuum of behavioral health services regardless of their financial resources.

Community Involvement:

Collaborate: Prior to the establishment of the Alcohol Stabilization Unit, representatives from numerous stakeholders in the community met and expressed the need for a detoxification facility. Following the creation of the ASU, stakeholders continue to meet regularly to discuss benefits and improvements in the operation of the ASU.

Attachments: [Agreement.Final \(1\)](#)

**AGREEMENT FOR
INTAKE TRIAGE SERVICES TO PROVIDE AN ALCOHOL STABILIZATION UNIT**

**CITY OF FLAGSTAFF
and
THE GUIDANCE CENTER, INC.**

This Agreement for Intake triage Services (“Agreement”) is made by and between the City of Flagstaff (“City”), a municipal corporation with offices at 211 W. Aspen Avenue, Flagstaff, Coconino County, Arizona, and The Guidance Center, Inc., an Arizona corporation with an office at 2187 N. Vickey Street, Flagstaff, Arizona 86004 (“Provider”), effective as of the date written below.

RECITALS

- A. The City desires to enter into this Agreement for Intake Triage Services for the initial stabilization treatment and care of publicly intoxicated persons in the Flagstaff area; and
- B. Provider has available and offers to provide the personnel necessary to organize and provide said services in accordance with the RFP and Scope of Work, attached to this Agreement as Exhibit A;

For the reasons recited above, and in consideration of the mutual covenants contained in this Agreement, the City and Provider agree as follows:

1. SERVICES TO BE PERFORMED BY PROVIDER

Provider agrees to provide the services, as set forth in detail in Exhibit “A” attached hereto and hereby incorporated as part of this Agreement and adopted by reference.

2. COMPENSATION OF PROVIDER

The City agrees to make an annual payment, in the amount of **\$74,250** for Intake Triage Services set forth in Exhibit “A”.

3. RIGHTS AND OBLIGATIONS OF PROVIDER

3.1 Independent Contractor. The parties agree that Provider performs specialized services and that Provider enters into this Agreement with the City as an independent contractor. Nothing in this Agreement shall be construed to constitute Provider or any of Provider’s agents or employees as an agent, employee or representative of the City. As an independent contractor, Provider is solely responsible for all labor and expenses in connection with this Agreement and for any and all damages arising out of Provider’s performance under this Agreement. Provider is not obligated to accept all requests for services, depending on circumstances with other work being performed for other clients.

3.2 Provider’s Control of Work. All services to be provided by Provider shall be performed as determined by the City in accordance with the Scope of Services set forth in Exhibit “A.” Provider shall furnish the qualified personnel, materials, equipment and other items necessary to carry out the terms of this Agreement. Provider shall be responsible for and in full control of the work of all such personnel.

3.3 Reports to the City. Although Provider is responsible for control and supervision of work performed under this Agreement, the services provided shall be acceptable to the City and shall be subject to a general right of inspection and supervision to ensure satisfactory completion. This right of inspection and supervision shall include, but not be limited to, all reports if requested by the City to be provided by Provider to the City and the right of the City, and the right of the City to audit Provider’s records.

3.4 Compliance with All Laws. Provider shall comply with all applicable laws, ordinances, rules, regulations and executive orders of the federal, state and local government, which may affect the performance of this Agreement. Any provision required by law, ordinances, rules, regulations, or executive orders to be inserted in this Agreement shall be deemed inserted, whether or not such provisions appear in this Agreement.

4. NOTICE PROVISIONS

Notice. Any notice concerning this Agreement shall be in writing and sent by certified or registered mail as follows:

To the City's Authorized Representative:

**Dan Mussleman
Deputy Police Chief
City of Flagstaff
211 W. Aspen
Flagstaff, Arizona 86001**

To Provider:

**Jack Callaghan, Ph.D.
Chief Executive officer
The Guidance Center, Inc.
2187 N. Vickey Street
Flagstaff, Arizona 86004**

5. INDEMNIFICATION

To the fullest extent permitted by law, Provider shall indemnify, defend, save and hold harmless the City of Flagstaff and its officers, officials, agents, and employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (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 Provider or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such Provider 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 Provider from and against any and all claims. It is agreed that Provider shall be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. Provider shall waive all rights of subrogation against the City, its officers, officials, agents and employees for losses arising from the work performed by Provider for the City.

6. INSURANCE

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

The insurance requirements herein are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. The City in no way warrants that the minimum limits contained herein are sufficient to protect Provider from liabilities that may arise out of the performance of the work under this Agreement by Provider, its agents, representatives, employees or subcontractors and Provider is free to purchase additional insurance as may be determined necessary.

A. Minimum Scope and Limits of Insurance. Provider shall provide coverage at least as broad and with limits of liability not less than those stated below.

1. Commercial General Liability - Occurrence Form
(Form CG 0001, ed. 10/93 or any replacement thereof)

General Aggregate	\$2,000,000
Products/Completed Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000
Fire Damage (any one fire)	\$500,000
Medical Expense (any one person)	Optional

2. Automobile Liability - Any Auto or Owned, Hired and Non-Owned Vehicles
(Form CA 0001, ed. 12/93 or any replacement thereof.)

Combined Single Limit Per Accident for Bodily Injury and Property Damage	\$1,000,000
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3. Commercial General Liability \$1,000,000

4. Professional Liability \$2,000,000

B. SELF-INSURED RETENTIONS/DEDUCTIBLES: Any self-insured retentions and deductibles must be noted to the City. However, the Proposer shall be solely responsible for any self-insured and/or deductibles associated with the Proposer's insurance coverage.

C. OTHER INSURANCE REQUIREMENTS: The policies are to contain, or be endorsed to contain, the following provisions:

1. Commercial General Liability and Automobile Liability Coverages:

- a. The City of Flagstaff, its officers, officials, and employees are additional insureds with respect to liability arising out of: activities performed by, or on behalf of, the Provider; including the City's general supervision of the Provider; products and completed operations of the Provider: and automobiles owned, leased, hired or borrowed by the Provider.

- b. The Provider's insurance shall contain broad form contractual liability coverage.

- c. The Provider's insurance coverage shall be primary insurance with respect to the City, its, officers, officials, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be in excess to the coverage of the Provider's insurance and shall not contribute to it.

- d. The Provider's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

- e. Coverage provided by the Provider shall not be limited to the liability assumed under the indemnification provisions of this contract.

- f. The policies shall contain a waiver of subrogation (not including auto) against the City, its officers, officials, and employees for losses arising from work performed by the Provider for the City.

2. Workers' Compensation and Employer's Liability Coverage: The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses arising from work performed by the Provider for the City.

6.1 Notice of Cancellation. Each insurance policy required by the insurance provisions of this Agreement shall provide the required coverage and shall not be suspended, voided or canceled except after thirty (30) days prior written notice has been given to the City, except when cancellation is for non-payment of premium, then at least ten (10) days prior notice shall be given to the City. Such notice shall be sent directly to:

Rick Compau, C.P.M., CPPO, CPPB
Purchasing Director
City of Flagstaff, Purchasing Division
211 W. Aspen Ave.
Flagstaff, Arizona 86001

6.2 Acceptability of Insurers. Insurance shall be placed with insurers duly licensed or authorized to do business in the State of Arizona and with an "A.M. Best" rating of not less than A- VII, or receiving prior approval by the City. The City in no way warrants that the above-required minimum insurer rating is sufficient to protect Provider from potential insurer insolvency.

6.3 Verification of Coverage. Prior to commencing work or services, Provider shall furnish the City with certificates of insurance (ACORD form or equivalent approved by the City) as required by this Agreement. The certificates for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and any required endorsements shall be received and approved by the City before work commences. Each insurance policy required by this Agreement shall be in effect at or prior to commencement of work under this Agreement and remain in effect for the duration of this Agreement. Failure to maintain the insurance policies as required by this Agreement or to provide evidence of renewal shall constitute a material breach of contract.

All certificates required by this Agreement shall be sent directly to **Rick Compau, C.P.M., CPPO, CPPB, Purchasing Director, City of Flagstaff, Purchasing Division, 211 W. Aspen Ave., Flagstaff, AZ. 86001.** The City project/contract number and project description shall be noted on the certificate of insurance. The City reserves the right to request and receive within ten (10) days, complete, certified copies of all insurance policies required by this Agreement at any time. The City shall not be obligated, however, to review same or to advise Provider of any deficiencies in such policies and endorsements, and such receipt shall not relieve Provider from, or be deemed a waiver of the City's right to insist on, strict fulfillment of Provider's obligations under this Agreement.

6.4 Subcontractors. Providers' certificate(s) shall include all subcontractors as additional insureds under its policies **or** Provider shall furnish to the City separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum requirements identified above.

6.5 Approval. Any modification or variation from the insurance requirements in this Agreement shall be made by the City Attorney's office, whose decision shall be final. Such action shall not require a formal amendment to this Agreement, but may be made by administrative action.

7. DEFAULT AND TERMINATION

7.1 Events of Default Defined. The following shall be Events of Default under this Agreement:

7.1.1 Any material misrepresentation made by Provider to the City;

7.1.2 Any failure by Provider to perform its obligations under this Agreement including, but not limited to, the following:

- 7.1.2.1 Failure to commence work at the time(s) specified in this Agreement due to a reason or circumstance within Provider's reasonable control;
- 7.1.2.2 Failure to perform the work with sufficient personnel and equipment or with sufficient equipment to ensure completion of the work within the specified time;
- 7.1.2.3 Failure to perform the work in a manner reasonably satisfactory to the City;
- 7.1.2.4 Failure to promptly correct or re-perform within a reasonable time work that was rejected by the City as unsatisfactory or erroneous;
- 7.1.2.5 Discontinuance of the work for reasons not beyond Provider's reasonable control;
- 7.1.2.6 Failure to comply with a material term of this Agreement, including, but not limited to, the provision of insurance; and
- 7.1.2.7 Any other acts specifically stated in this Agreement as constituting a default or a breach of this Agreement.

7.2 Remedies.

7.2.1 Upon the occurrence of any Event of Default, the City may declare Provider in default under this Agreement. The City shall provide written notification of the Event of Default and any intention of the City to terminate this Agreement. Upon the giving of notice, the City may invoke any or all of the following remedies:

- 7.2.1.1 The right to cancel this Agreement as to any or all of the services yet to be performed;
- 7.2.1.2 The right of specific performance, an injunction or any other appropriate equitable remedy;
- 7.2.1.3 The right to monetary damages;
- 7.2.1.4 The right to withhold all or any part of Provider's compensation under this Agreement;
- 7.2.1.5 The right to deem Provider non-responsive in future contracts to be awarded by the City; and
- 7.2.1.6 The right to seek recoupment of public funds spent for impermissible purposes.

7.2.2 The City may elect not to declare an Event of Default or default under this Agreement or to terminate this Agreement upon the occurrence of an Event of Default. The parties acknowledge that this provision is solely for the benefit of the City, and that if the City allows Provider to continue to provide the Services despite the occurrence of one or more Events of Default, Provider shall in no way be relieved of any of its responsibilities or obligations under this Agreement, nor shall the City be deemed to waive or relinquish any of its rights under this Agreement.

7.2.3 Any excess costs incurred by the City in the event of termination of this Agreement for default, or in the event the City exercises any of the remedies available to it under this Agreement, may be offset by use of any payment due for services completed before termination of this Agreement for default or the exercise of any remedies. If the offset amount is insufficient to cover excess costs, Provider shall be liable for and shall remit promptly to the City the balance upon written demand from the City.

8. GENERAL PROVISIONS

8.1 Headings. The article and section headings contained herein are for convenience in reference and are not intended to define or limit the scope of any provision of this Agreement.

8.2 Jurisdiction and Venue. This Agreement shall be administered and interpreted under the laws of the State of Arizona. Provider hereby submits itself to the original jurisdiction of those courts located within Coconino County, Arizona.

8.3 Attorney's Fees. If suit or action is initiated in connection with any controversy arising out of this Agreement, the prevailing party shall be entitled to recover in addition to costs such sum as the court may adjudge reasonable as attorney fees, or in event of appeal as allowed by the appellate court.

8.4 Severability. If any part of this Agreement is determined by a court to be in conflict with any statute or constitution or to be unlawful for any reason, the parties intend that the remaining provisions of this Agreement shall remain in full force and effect unless the stricken provision leaves the remaining Agreement unenforceable.

8.5 Assignment. This Agreement is binding on the heirs, successors and assigns of the parties hereto. This Agreement may not be assigned by either the City or Provider without prior written consent of the other.

8.6 Conflict of Interest. Provider covenants that Provider presently has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of services required to be performed under this Agreement. Provider further covenants that in the performance of this Agreement, Provider shall not engage any employee or apprentice having any such interest. The parties agree that this Agreement may be cancelled for conflict of interest in accordance with Arizona Revised Statutes § 38-511.

8.7 Authority to Contract. Each party represents and warrants that it has full power and authority to enter into this Agreement and perform its obligations hereunder, and that it has taken all actions necessary to authorize entering into this Agreement.

8.8 Integration. This Agreement represents the entire understanding of City and Provider as to those matters contained in this Agreement, and no prior oral or written understanding shall be of any force or effect with respect to those matters. This Agreement may not be modified or altered except in writing signed by duly authorized representatives of the parties.

8.9 Non-appropriation. In the event that no funds or insufficient funds are appropriated and budgeted in any fiscal period of the City for payments to be made under this Agreement, the City shall notify Provider of such occurrence, and this Agreement shall terminate on the earlier of the last day of the fiscal period for which sufficient appropriation was made or whenever the funds appropriated for payment under this Agreement are exhausted. No payments shall be made or due to Provider under this Agreement beyond these amounts appropriated and budgeted by the City to fund payments under this Agreement.

8.10 Mediation. If a dispute arises out of or relates to this Agreement, and if the dispute cannot be settled through negotiation, the parties agree first to try in good faith to resolve the dispute by mediation before resorting to litigation or some other dispute resolution procedure. Mediation shall take place in Flagstaff, Arizona, shall be self-administered, and shall be conducted under the CPR Mediation Procedures established by the CPR Institute for Dispute Resolution, 366 Madison Avenue, New York, NY 10017, (212) 949-6490, www.cpradr.org, with the exception of the mediator selection provisions, unless other procedures are agreed upon by the parties. Unless the parties agree

otherwise, the mediator(s) shall be selected from panels of mediators trained under the Alternative Dispute Resolution Program of the Coconino County Superior Court. Each party agrees to bear its own costs in mediation. The parties shall not be obligated to mediate if an indispensable party is unwilling to join the mediation. This mediation provision shall not constitute a waiver of the parties' right to initiate legal action if a dispute is not resolved through good faith negotiation or mediation, or if a party seeks provisional relief under the Arizona Rules of Civil Procedure.

8.11 Compliance with Federal Immigration Laws and Regulations. Provider hereby warrants to the City that the Provider and each of its subcontractors ("Subcontractors") will comply with, and are contractually obligated to comply with, all Federal Immigration laws and regulations that relate to its employees and A.R.S. §23-214(A) (hereinafter "Provider Immigration Warranty").

A breach of the Provider Immigration Warranty shall constitute a material breach of this Agreement and shall subject the Provider to penalties up to and including termination of this Agreement at the sole discretion of the City.

The City retains the legal right to inspect the papers of any Provider or Subcontractor employee who works on this Agreement to ensure that the Provider or Subcontractor is complying with the Provider Immigration Warranty. Provider agrees to assist the City in regard to any such inspections.

The City may, at its sole discretion, conduct random verification of the employment records of the Provider and any of subcontractors to ensure compliance with Provider's Immigration Warranty. Provider agrees to assist the City in regard to any random verifications performed.

The provisions of this Article must be included in any contract the Provider enters into with any and all of its subcontractors who provide services under this Agreement or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a contractor or subcontractor. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

8.12 Subcontractors. This Agreement or any portion thereof shall not be sub-contracted without the prior written approval of the City. No Subcontractor shall, under any circumstances, relieve Provider of its liability and obligation under this Agreement. The City shall deal through Provider and any Subcontractor shall be dealt with as a worker and representative of Provider. Provider assumes responsibility to the City for the proper performance of the work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between the City and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

8.13 Waiver. No failure to enforce any condition or covenant of this Agreement by the City shall imply or constitute a waiver of the right of the City to insist upon performance of the condition or covenant, or of any other provision of this Agreement, nor shall any waiver by the City of any breach of any one or more conditions or covenants of this Agreement constitute a waiver of any succeeding or other breach under this Agreement.

8.14 Business Operations in Sudan/Iran. In accordance with A.R.S. § 35-397, the Provider certifies that the Provider and its affiliates and subsidiaries do not have scrutinized business operations in Sudan or Iran. If the City determines that the Provider's certification is false, the City may impose all legal and equitable remedies available to it, including but not limited to termination of this Agreement.

9. DURATION

This Agreement shall become effective on and from the day and year executed by the parties, indicated below, and shall continue in force for an initial term of one (1) year, beginning July 1, 2013 through June 30, 2014, unless sooner terminated as provided above. Upon mutual written agreement between the City and Provider, this Agreement may be renewed for a maximum of four (4) additional one (1) year

terms, subject to annual budget appropriation. The Purchasing Director of the City has authority to bind the City only for the purpose of renewing the term of this Agreement as described in this section.

City of Flagstaff

Provider

Kevin Burke, City Manager

Jack Callaghan, Ph.D., CEO

Attest:

City Clerk

Approved as to form:

City Attorney

Date of Execution: _____

EXHIBIT A SCOPE OF WORK

The Guidance Center, Inc. shall provide Intake Triage Services that include operating and maintaining an Alcohol Stabilization Unit for providing initial intervention, stabilization and care of publicly intoxicated persons to the public.

The Guidance Center, Inc. shall provide such services to all persons referred or brought in by the Flagstaff Police Department, or other governmental agency, or self-presenting to the Alcohol Stabilization Unit without regard to that individual's ability to pay for such services.

The Guidance Center, Inc. shall accept all intoxicated persons transported to its ASU by any Flagstaff Police Officer without a requirement that they first be "cleared" medically before they can accept them either as Title 36 or just intoxicated by Flagstaff Medical Center's Emergency Department.

In addition, The Guidance Center, Inc. shall also provide mental health services related to substance abuse treatment and detoxification services to the Flagstaff community, including: residential short-term substance abuse treatment services, outpatient services and special substance abuse programs for adolescents, persons with co-occurring mental and substance abuse disorders, criminal justice system referral clients, including DUI/DWI offenders and court ordered individuals.

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Gary Miller, Project Manager
Date: 06/25/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Adoption of Ordinance No. 2013-16: An ordinance authorizing the sale of two access easements that encumber a portion of parcel 109-02-001P and benefit parcel 109-05-081A currently owned by Cedar West Capital LLC.

RECOMMENDED ACTION:

- 1) Read Ordinance No. 2013-16 by title only for the first time
- 2) City Clerk reads Ordinance No. 2013-16 by title only for the first time (if approved above)
- 3) Read Ordinance No. 2013-16 by title only for the final time on July 16, 2013
- 4) City Clerk reads Ordinance No. 2013-16 by title only for the final time (if approved above)
- 5) Adopt Ordinance No. 2013-16

Policy Decision or Reason for Action:

Staff has received a request from Cedar West Capital LLC to purchase two access easements across parcel 109-02-001P owned by the City of Flagstaff. The access driveways have been in place and utilized for over the past 20 years without the appropriate easements. Selling these two access easements will provide legal access along the existing driveways across parcel 109-02-001P.

Financial Impact:

Cedar West Capital LLC will purchase the access easement rights from the City of Flagstaff in the amount of \$500.00 as determined by the attached opinion of value.

Connection to Council Goal:

5. Retain, expand, and diversify economic base

Has There Been Previous Council Decision on This:

No.

Options and Alternatives:

The Council may approve the easement sale request: Approval of the request will provide legal access to the existing development.

The Council may deny the request for easements: Denial of the request will maintain the current access situation, and complicate the sale of the property.

ORDINANCE NO. 2013-16

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AUTHORIZING THE SALE OF TWO ACCESS EASEMENTS ENCUMBERING PARCEL NUMBER 109-02-001P AND BENEFITING PARCEL NUMBER 109-05-081A, AS IS MORE FULLY DESCRIBED IN THE LEGAL DESCRIPTION ATTACHED AS EXHIBIT A, TO CEDAR WEST CAPITAL LLC AND PROVIDING AUTHORITY FOR THE CITY MANAGER TO EXECUTE ALL NECESSARY DOCUMENTS AND AUTHORITY FOR THE CITY CLERK TO MAKE CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City of Flagstaff (the "City") owns parcel 109-02-001P which abuts West Street and the parcel 109-05-081A owned by Cedar West Capital, LLC; and

WHEREAS, the Cedar West Capital LLC wishes to purchase two access easements, as described in Exhibit A, from the City to establish legal access to its property from West Street.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. That the City is hereby authorized to sell the two access easements described in Exhibit A to Cedar West Capital LLC for the amount of \$500.00.

SECTION 2. That the City Manager is authorized to execute any other documents necessary to effectuate this sale.

SECTION 3. The City Clerk is hereby authorized to correct typographical and grammatical errors, as well as errors of wording and punctuation, as necessary related to this ordinance as amended herein, and to make formatting changes needed for purposes of clarity and form, or consistency within thirty (30) days following adoption by the City Council.

SECTION 4. This ordinance shall become effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council and approved by the Vice Mayor of the City of Flagstaff this 16th day of July, 2013.

VICE MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

When recorded return to:

Cedar West Capital, LLC
10 East Dale Avenue
Flagstaff, AZ 86001

EASEMENT

Grantor, The City of Flagstaff, is the owner of the parcel of property described in Exhibit A in the document recorded in Coconino County as Instrument 3216350. Such parcel consists of 1.38 acres. (Coconino County Assessor Parcel 109-02-001P)

Grantor desires to create two easements across said property for ingress and egress for the benefit of the current and future owners of the property immediately adjacent to the east, the current owner being Cedar West Capital, LLC. ("Grantee") (Coconino County Assessor Parcels 109-05-081A and 001G)

Therefore, for the consideration of \$500 and other consideration Grantor does hereby grant to Grantee two easements for ingress/egress described as follows:

"Ingress/Egress Easement 1" as described on page 4 of 6 of the document recorded in Coconino County as Instrument 3516350 and as depicted in the Arizona Engineering Company drawing recorded as page 6 of 6 of Instrument 3516350; and

"Ingress/Egress Easement 2" as described on pages 4-5 of 6 of the document recorded in Coconino County as Instrument 3516350 and as depicted in the Arizona Engineering Company drawing recorded as page 6 of 6 of Instrument 3516350.

Grantee shall have the exclusive obligation to improve, maintain and control such easements.

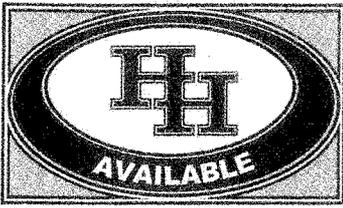
City of Flagstaff

By: _____
Gerald W. Nabours, Mayor

Attest: _____
City Clerk

Approved as to form:

Michelle D'Andrea, City Attorney



HILTON HARRIS REAL ESTATE

Commercial Real Estate Services

June 27, 2013

Michelle D'Andrea
Flagstaff City Attorney
211 W. Aspen
Flagstaff, AZ 86001

**Re: Assessor's parcel
109-02-001P**

The above referenced parcel is owned by the City of Flagstaff and lies along the west edge of the Cedar Safeway Shopping Center at 1500 East Cedar Avenue. A very narrow portion of the City's property separates the shopping center property from West Street. For over 20 years there have been two driveways providing access into the center from West Street.

You have asked me for my observations regarding the consideration to be paid to the City for two easements formally establishing the use of the driveways.

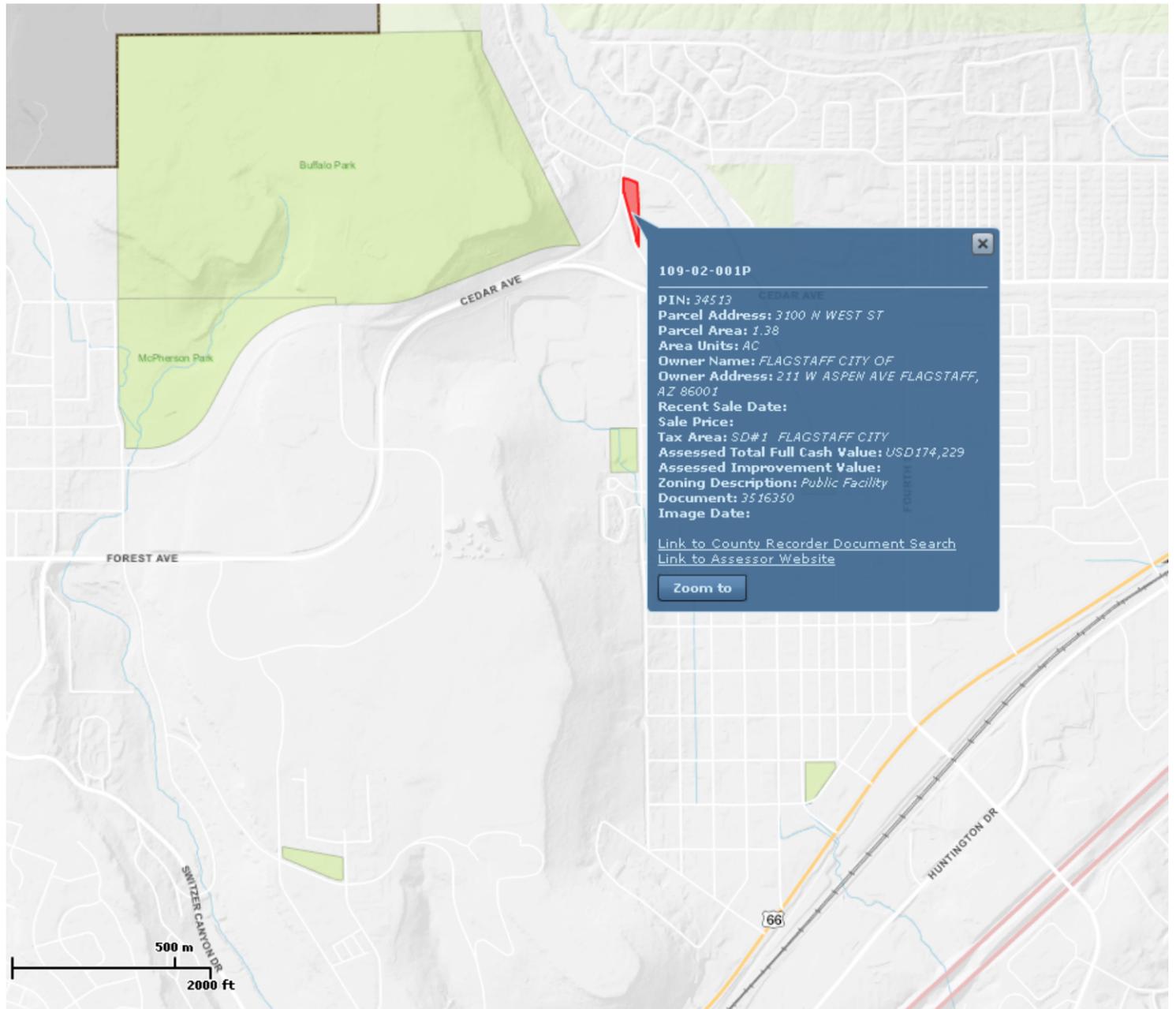
The portion of the City's property where the easements would be located is unusable for any other purpose. The conveyance of the easements would not be detrimental to the City's property in any way. Therefore, the consideration would be nominal. I would think that \$500 to defray the cost of preparing the easement document would be a fair consideration.

Thank you

Hilton Harris, Broker
Hilton Harris Real Estate

Cedar Shopping Center

Area Map



Wed Jun 26 2013 07:43:17 AM.

NOTES

1. TYPE II STREET IMPROVEMENTS REQUIRED ON CEDAR AVENUE
2. ACCESS EASEMENTS ARE REQUIRED FOR EMERGENCY VEHICLES
3. ALL OUTDOOR LIGHTING SHALL BE SHIELDED DOWNWARD PER CODE.
4. NO OUTDOOR STORAGE DETENTION REQUIRED
5. ON SITE DRAINAGE DETENTION REQUIRED
6. APPROVED LANDSCAPE REQUIRED.

NELSON-KUBICEK ARCHITECTS, AIA
 5025 NORTH SIXTEENTH STREET
 PHOENIX, ARIZONA 85016
 TEL. (602) 956-0530

OWNER - DEVELOPER

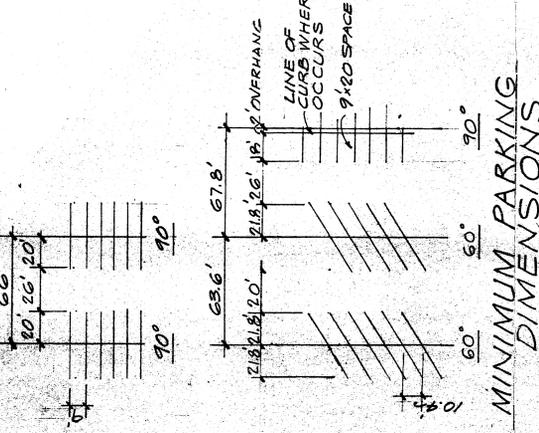
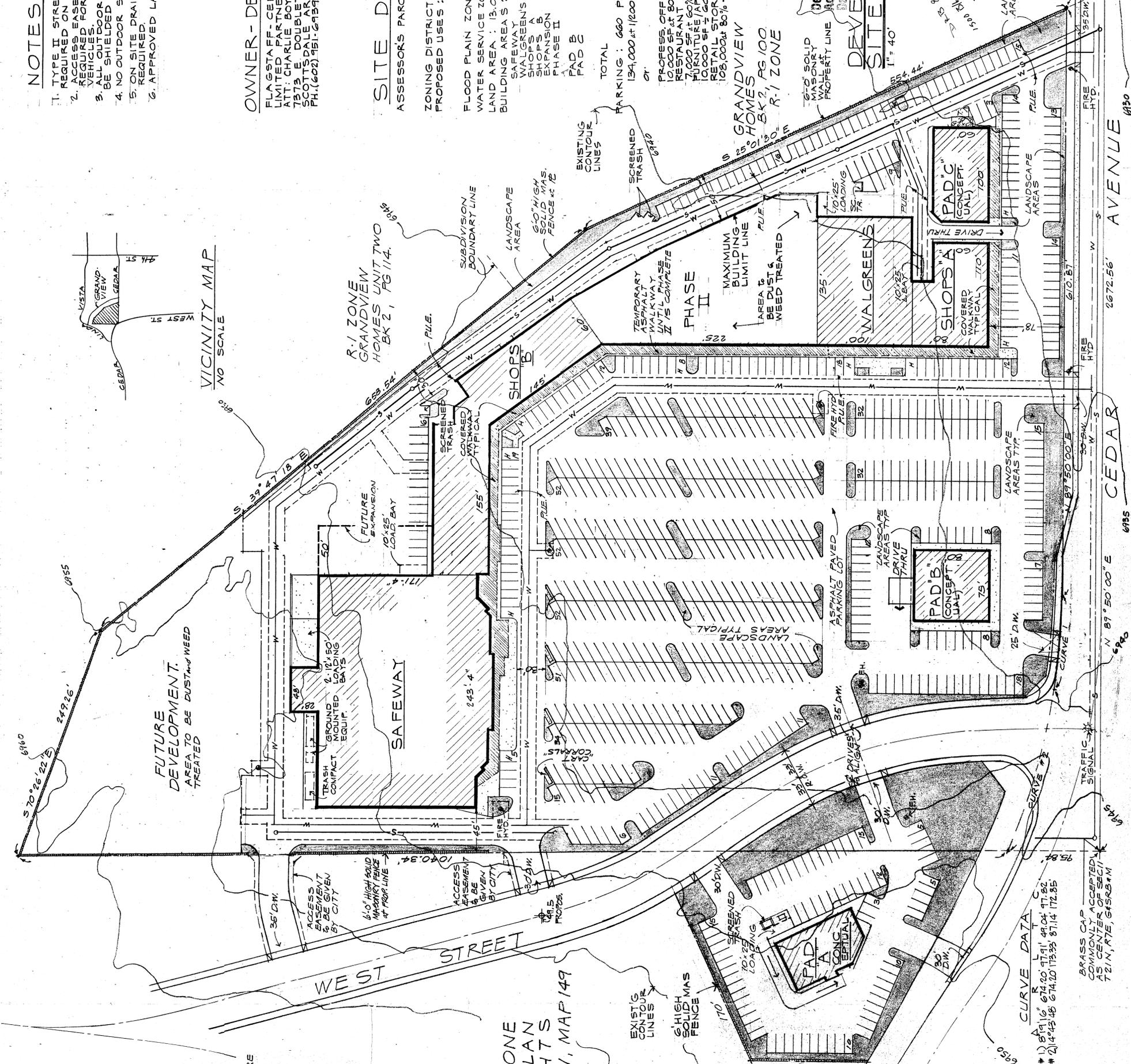
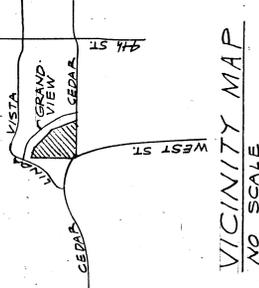
FLAGSTAFF - CEDAR INVESTORS
 LIMITED PARTNERSHIP
 ATT: CHARLIE BOYD
 7873 E. DOUBLETREE RANCH RD #225
 SCOTTSDALE, ARIZONA 85258
 PH: (602) 451-2939

SITE DATA

ASSESSOR'S PARCEL 109-5-80A
 109-5-81
 109-5-1C
 ZONING DISTRICT: C-2
 PROPOSED USES: RETAIL SALES
 RESTAURANT
 PROFESSION OFFICES
 FLOOD PLAIN ZONE: "C"
 WATER SERVICE ZONE: "B"
 LAND AREA: 13.0 ACRES MORE OR LESS
 BUILDING AREAS:
 WALGREENS 46,850
 SAFEWAY 13,500
 SHOPS A 8,000
 SHOPS B 18,400
 EXPANSION 6,000
 PHASE II 29,250
 PAD B 6,000
 PAD C 6,000
 TOTAL 134,000 SF (62% COV.)
 PARKING: 660 PROVIDED
 134,000 at 1600 = 670 SP.

FLAGSTAFF & WEST STREETS
 INFC CEDAR & WEST STREETS
 FLAGSTAFF, ARIZONA

Sheet
 Design BCB
 Drawn BCB
 Check BCB
 Job 88210



R-R ZONE
 McMILLAN
 HEIGHTS
 CASE I, MAP 149

PAD A DATA

ZONING: R-R/C-2
 CURRENT: R-R/C-2
 PROPOSED: C-2
 PROPOSED USE: RESTAURANT
 LAND AREA: 1.36 ACRES MORE OR LESS
 BUILDING AREA: 5,000 SF
 PARKING: 75 SPACES
 REQ'D (5000 at 60% = 40) 75 PROVIDED: 75 SPACES

CURVE DATA

1) 87.11' 674.20' 97.91' 49.04' 97.92'
 # 2) 47.45' 674.20' 173.33' 87.14' 172.35'

BRASS CAP ACCEPTED
 15 CENTER OF SECTORS
 72 IN, R7E, 6458.4 M

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Michael Scheu, Building Official
Date: 06/26/2013
Meeting Date: 07/02/2013



TITLE:

Consideration and Adoption of Ordinance No. 2013-12: An ordinance of the City Council of the City of Flagstaff, Arizona, adopting the "2012 International Family of Codes, and the 2013 Amendments to City Code, Title 4, Building Regulations, and the ICC A117.1 Accessible and Usable Buildings and Facilities Standard, 2009 Edition" by reference and fixing the effective date thereof; repealing all sections of said code in conflict with this ordinance; preserving rights and duties that have already matured and proceedings that have already begun thereunder and providing penalties for the violation thereof.

RECOMMENDED ACTION:

- 1) Read Ordinance No. 2013-12 by title only for the final time
- 2) City Clerk reads Ordinance No. 2013-12 by title only (if approved above)
- 3) Adopt Ordinance No. 2013-12

Policy Decision or Reason for Action:

Adoption of Ordinance No. 2013-12 will incorporate the 2012 International Family of Codes, 2009 Addition, the Accessible and Usable Buildings and Facilities Standard, and the 2013 Building Code Amendments to the Flagstaff City Code, Title 4, Building Regulations into the Flagstaff City Code. Title 4 includes the following amendments to the Energy Code as recommended by Council:

- 1) Section R402.2.1, Requiring R-49 insulation in attic but only R-30 above exterior walls
- 2) Section R402.4.1.2, Deleting blower door test
- 3) Section R403.5.1, Deleting whole house ventilation system and fan efficiency
- 4) Section C101.2 & R101.2, Adding except for Group 2 (multi-family) to allow either residential or commercial requirements.

Financial Impact:

Adoption of an amendment eliminating the requirement for waterless urinals and replacing them with a urinal having a maximum 1 pint flush will reduce costs.

There will be some increased costs due to some of the changes in the building codes. For the energy code, a 30% increase in energy efficiency over the 2006 energy code will incorporate numerous changes.

Attached are four studies: U.S. Department of Energy, Coconino County, Salt Lake City, and National Association of Home Builders

While the assumptions in the studies are different it may still be useful to compare them. The cost increase from the 2006 Energy Code to the 2012 Energy Code, adjusted to reflect the four proposed

deletions in the draft City Ordinance, range from \$1585 to \$3869. The NAHB national average is as high as \$6404. Two studies show a positive cash flow taking place after two years. In two studies the simple payback ranges from 6.4 years to 8.1 years. The NAHB national average was 11.3 years. See attached Table 1 for more details.

Connection to Council Goal:

11. Effective governance

By Adopting the 2012 International Codes and the proposed 2013 amendments to the City Code, Title 4, the life safety of buildings will be retained along with reduced energy consumption in residential and commercial buildings. The City will also take advantage of new technical innovations and the cities ISO rating will change remain level.

Has There Been Previous Council Decision on This:

Yes. The 2009 International Codes was brought before the previous council for adoption in July of 2011. Council voted to bypass the 2009 codes and go to a 6 year code adoption cycle.

Options and Alternatives:

- 1) Council could adopt all the proposed 2012 Codes as written and the 2013 Building Code Amendments as amended.
- 2) Council could elect to adopt the proposed 2012 Building Codes, and adopt the 2009 Energy Code, and the amended 2013 Building Code Amendments.
- 3) Council could elect to adopt the 2012 Building Codes, adopt 2012 Energy Code but amend to the 2006 or 2009 Energy Code, and adopt the amended 2013 Building Code Amendments.
- 4) If no updating of the Codes were to occur by October of 2013, the ISO would raise the insurance rating to a classification 9 causing an increase in insurance rates.

Background/History:

The Building Safety Program is responsible for reviewing and adopting building codes in consideration of current life safety issues and building industry standards. Since April 13, 1937, the City of Flagstaff has been reviewing and adopting various building, plumbing, mechanical, electrical, gas and fire code to better serve the community. The last major code review and adoption was the 2006 Edition of the International Codes, by Ordinance 2007-47, on January 18, 2008. In 2011, the council approved going to a 6 year code cycle instead of a 3 year cycle.

Key Considerations:

By adopting the 2012 codes, there will be 2 cycles of code changes that will be incorporated in the codes. In the Energy Code, Chapter 4 is the residential requirements and Chapter 5 is the commercial requirements. Most of the sections are prescriptive requirements but there are some mandatory requirements also. There is also Section R405 which allows for a performance-based compliance based on simulated energy performance which shows that the proposed design will have an annual energy cost that is less than or equal to the annual energy cost of the standard reference design. In both sections, there are certain "mandatory" requirements that are required for both the prescriptive and performance methods of compliance. This will allow a builder to be innovative to find other methods to meet the energy saving goals.

Expanded Financial Considerations:

There will be a cost of approximately \$3,500 for new code books and \$2,000 for training of the plans examiners and inspectors.

Community Benefits and Considerations:

By adopting the 2012 codes, the City's ISO rating will remain at a Class 3 rating which will keep local insurance rates from increasing. Also, by constructing new residential and commercial projects to the 2012 International Energy Conservation Code, the community is assuring that the new structures being added to the inventory will save on energy, thus enhancing a viable sustainable future.

Community Involvement:

Public code forums were held from February 2012 to January 2013 with a suspension from May 2012 to October 2012 due to work load. Information and invites were sent to NABA, F3, local architects and engineers, NAGBC, local contractors and designers plus individuals who asked to be placed on the email list, the Sustainability Commission and on May 8, staff will be meeting with the Chamber of Commerce. Coconino county will be considering adopting the 2012 Codes later this year.

Attachments: [Table 1](#)
 [Ordinance 2013-12](#)
 [Resolution 2013-10](#)
 [2009 IECC](#)
 [2012 IECC](#)
 [Salt Lake City 2012 IECC ROI](#)
 [2013 Amendments](#)
 [NAHBCostAnalysis](#)
 [Coconino County 2006 & 2012 Cost Analysis](#)
 [USDOE 2009 & 2012 IECC Energy & Cost Savings](#)

Table 1
2012 Energy Code
Study Comparison

	U.S. DOE	Coconino County	Salt Lake City	NAHB
Areas	Coconino County	Coconino County	Salt Lake City	Zone 2 = Phoenix (Nat'l Avg.)
House Size	2,400 SF	2,000 SF	2,400 SF	2,580 SF
Cost 2006-2012	\$3,925	\$4,348	\$3,815	\$4,499 Zone 2 \$7034 (Nat. Avg.)
Cost Adjusted¹	\$1,695	\$3,136	\$1,585	\$3,869 Zone 2 \$6404 (Nat. Avg.)
Positive Cash Flow²	2 Yrs	-	2 Yrs.	-
Simple Pay Back²	6.4 Yrs.	-	-	8.1 Yrs. Zone 2 11.3 Yrs. (Nat. Avg)

¹For four City amendments

²Not reduced to reflect four City amendments

ORDINANCE NO. 2013-12

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, ADOPTING THE “2012 INTERNATIONAL FAMILY OF CODES, AND THE 2013 AMENDMENTS TO CITY CODE, TITLE 4, BUILDING REGULATIONS, AND THE ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES STANDARD, 2009 EDITION”, BY REFERENCE AND FIXING THE EFFECTIVE DATE THEREOF; REPEALING ALL SECTIONS OF SAID CODE IN CONFLICT WITH THIS ORDINANCE; PRESERVING RIGHTS AND DUTIES THAT HAVE ALREADY MATURED AND PROCEEDINGS THAT HAVE ALREADY BEGUN THEREUNDER AND PROVIDING PENALTIES FOR THE VIOLATION THEREOF

RECITALS:

WHEREAS, that certain document known as the “2012 International Family of Codes, and the *2013 Amendments to City Code, Title 4, Building Regulations*, and the ICC A117.1 Accessible and Usable Buildings and Facilities Standard, 2009 Edition”, three copies of which are on file in the office of the City Clerk of the City of Flagstaff, Arizona, made a public record by Resolution No. 2013-10; and

WHEREAS, the City Council has determined that adopting the “2012 International Family of Codes and the *2013 Amendments to City Code, Title 4, Building Regulations*, and the ICC A117.1 Accessible and Usable Buildings and Facilities Standard, 2009 Edition,” is necessary for regulating and governing the construction, alteration, movement, enlargement, replacement, repair, equipment, location, removal and demolition of buildings and structures; and

WHEREAS, the City Council has determined that adopting the “2012 International Family of Code and the *2013 Amendments to City Code, Title 4, Building Regulations*, and the ICC A117.1 Accessible and Usable Buildings and Facilities Standard, 2009 Edition,” is necessary for providing the standards for supplied utilities, facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and

WHEREAS, the City Council has determined that adoption of the “2012 International Family of Code and the *2013 Amendments to City Code, Title 4, Building Regulations*, and the ICC A117.1 Accessible and Usable Buildings and Facilities Standard, 2009 Edition,” is necessary for the issuance of permits and collection of fees pursuant thereto, and for implementing and enforcing each and all of the regulations, provisions, penalties, conditions and terms of an updated Flagstaff Building Code.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED by the Flagstaff City Council as follows:

Section 1: THAT certain document known as the “*2012 International Family of Code and the 2013 Amendments to City Code, Title 4, Building Regulations*, and the ICC A117.1 Accessible and Usable Buildings and Facilities Standard, 2009 Edition”, three copies of which are on file in the office of the City Clerk of the City of Flagstaff, Arizona, which document was made a public record by Resolution No. 2013-10 of the City of Flagstaff, is hereby referred to, adopted and

made a part hereof as if fully set out in this ordinance, the provisions thereof to become effective on the _____ day of _____, 2013.

Section 2: THAT any person found guilty of violating any provision of this code shall be guilty of a class one misdemeanor. Each day that a violation continues shall be a separate offense punishable as herein above described.

Section 3: THAT the Flagstaff City Code and all ordinances and parts of ordinances in conflict with the provisions of this ordinance or any part of the code adopted herein by reference are hereby repealed, effective as of the _____ day of _____, 2013.

Section 4: THAT the repeal of prior ordinances and parts of ordinances reference in Section 3 above does not affect the rights and duties that matured or penalties that were incurred and proceedings that were begun before the effective date of the repeal.

Section 5: THAT if any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of the code adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

PASSED AND ADOPTED by the City Council and approved by the Mayor of the City of Flagstaff this _____ day of _____, 2013.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

RESOLUTION NO. 2013-10

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENTS FILED WITH THE CITY CLERK ENTITLED THE "2012 INTERNATIONAL FAMILY OF CODES, AND THE 2013 AMENDMENTS TO CITY CODE, TITLE 4, BUILDING REGULATIONS, AND THE ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES STANDARD, 2009 EDITION" WHICH INCLUDES THE INTERNATIONAL BUILDING CODE 2012 EDITION; INTERNATIONAL RESIDENTIAL CODE, 2012 EDITION; INTERNATIONAL PLUMBING CODE, 2012 EDITION; INTERNATIONAL MECHANICAL CODE, 2012 EDITION; INTERNATIONAL FUEL GAS CODE, 2012 EDITION; INTERNATIONAL EXISTING BUILDING CODE, 2012 EDITION; INTERNATIONAL ENERGY CODE, 2012 EDITION; ICC A117.1, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES STANDARD, 2009 EDITION; AND PROVIDING FOR AMENDMENTS, ADDITIONS AND DELETIONS THERETO

ENACTMENTS:

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

That certain document entitled "*The 2012 International Family of Codes, the 2013 Amendments to City Code Title 4, Building Regulations*" and the *ICC A117.1, Accessible and Usable Buildings Standard, 2009 Edition, of the City of Flagstaff, Arizona,*" three copies of which are on file in the office of the City Clerk, is hereby declared to be a public record, and said copies are ordered to remain on file with the City Clerk.

PASSED AND ADOPTED by the City of Flagstaff Council and approved by the Mayor of the City of Flagstaff this 21st day of May, 2013.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

CHAPTER 4

RESIDENTIAL ENERGY EFFICIENCY

SECTION 401 GENERAL

401.1 Scope. This chapter applies to residential buildings.

401.2 Compliance. Projects shall comply with Sections ~~401.2.1, 401.2.2, 401.2.3, and 401.2.4~~ 402.4, 402.5, and ~~403.1, 403.2.1, 403.2.2, 403.2.3, and 403.3~~ 403.2.1, 403.2.2, 403.2.3, and 403.3 through ~~403.9~~ 403.9 (referred to as the mandatory provisions) and either:

1. Sections 402.1 through 402.3, 403.2.1 and 404.1 (prescriptive); or
2. Section 405 (performance).

401.3 Certificate. A permanent certificate shall be posted on or in the electrical distribution panel. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant *R*-values of insulation installed in or on ceiling/roof, walls, foundation (slab, *basement wall*, crawlspace wall and/or floor) and ducts outside conditioned spaces; *U*-factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficien-

cies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be listed for gas-fired unvented room heaters, electric furnaces or electric baseboard heaters.

SECTION 402 BUILDING THERMAL ENVELOPE

402.1 General (Prescriptive).

402.1.1 Insulation and fenestration criteria. The *building thermal envelope* shall meet the requirements of Table 402.1.1 based on the climate *zone* specified in Chapter 3.

402.1.2 *R*-value computation. Insulation material used in layers, such as framing cavity insulation and insulating sheathing, shall be summed to compute the component *R*-value. The manufacturer's settled *R*-value shall be used for blown insulation. Computed *R*-values shall not include an *R*-value for other building materials or air films.

TABLE 402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a

CLIMATE ZONE	FENESTRATION U-FACTOR ^b	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC ^{b, e}	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^c WALL R-VALUE	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE ^e WALL R-VALUE
1	1.2	0.75	0.30	30	13	3/4	13	0	0	0
2	0.65 ^j	0.75	0.30	30	13	4/6	13	0	0	0
3	0.50 ^j	0.65	0.30	30	13	5/8	19	5/13 ^f	0	5/13
4 except Marine	0.35	0.60	NR	38	13	5/10	19	10/13	10, 2 ft	10/13
5 and Marine 4	0.35	0.60	NR	38	^{Exp R-19} 20 or 13+5 ^h	13/17	30 ^g	10/13	10, 2 ft	10/13
6	0.35	0.60	NR	49	20 or 13+5 ^h	15/19	30 ^g	15/19	10, 4 ft	10/13
7 and 8	0.35	0.60	NR	49	21	19/21	38 ^g	15/19	10, 4 ft	10/13

For SI: 1 foot = 304.8 mm.

- a. *R*-values are minimums. *U*-factors and SHGC are maximums. R-19 batts compressed into a nominal 2 × 6 framing cavity such that the *R*-value is reduced by R-1 or more shall be marked with the compressed batt *R*-value in addition to the full thickness *R*-value.
- b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
- c. "15/19" means R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulated sheathing on the interior or exterior of the home. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
- d. R-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs.
- e. There are no SHGC requirements in the Marine Zone.
- f. Basement wall insulation is not required in warm-humid locations as defined by Figure 301.1 and Table 301.1.
- g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
- h. "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.
- i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.
- j. For impact rated fenestration complying with Section R301.2.1.2 of the *International Residential Code* or Section 1608.1.2 of the *International Building Code*, the maximum *U*-factor shall be 0.75 in Zone 2 and 0.65 in Zone 3.

TABLE 402.1.3
EQUIVALENT U-FACTORS^a

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR ^{b)}	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR ^{c)}
1	1.20	0.75	0.035	0.082	0.197	0.064	0.360	0.477
2	0.65	0.75	0.035	0.082	0.165	0.064	0.360	0.477
3	0.50	0.65	0.035	0.082	0.141	0.047	0.091 ^c	0.136
4 except Marine	0.35	0.60	0.030	0.082	0.141	0.047	0.059	0.065
5 and Marine 4	0.35	0.60	0.030	0.057	0.082	0.033	0.059	0.065
6	0.35	0.60	0.026	0.057	0.060	0.033	0.050	0.065
7 and 8	0.35	0.60	0.026	0.057	0.057	0.028	0.050	0.065

- a. Nonfenestration U-factors shall be obtained from measurement, calculation or an approved source.
- b. When more than half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.17 in Zone 1, 0.14 in Zone 2, 0.12 in Zone 3, 0.10 in Zone 4 except Marine, and the same as the frame wall U-factor in Marine Zone 4 and Zones 5 through 8.
- c. Basement wall U-factor of 0.360 in warm-humid locations as defined by Figure 301.1 and Table 301.2.

402.1.3 U-factor alternative. An assembly with a U-factor equal to or less than that specified in Table 402.1.3 shall be permitted as an alternative to the R-value in Table 402.1.1.

402.1.4 Total UA alternative. If the total building thermal envelope UA (sum of U-factor times assembly area) is less than or equal to the total UA resulting from using the U-factors in Table 402.1.3 (multiplied by the same assembly area as in the proposed building), the building shall be considered in compliance with Table 402.1.1. The UA calculation shall be done using a method consistent with the ASHRAE *Handbook of Fundamentals* and shall include the thermal bridging effects of framing materials. The SHGC requirements shall be met in addition to UA compliance.

402.2 Specific insulation requirements (Prescriptive).

402.2.1 Ceilings with attic spaces. When Section 402.1.1 would require R-38 in the ceiling, R-30 shall be deemed to satisfy the requirement for R-38 wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Similarly, R-38 shall be deemed to satisfy the requirement for R-49 wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves. This reduction shall not apply to the U-factor alternative approach in Section 402.1.3 and the total UA alternative in Section 402.1.4.

402.2.2 Ceilings without attic spaces. Where Section 402.1.1 would require insulation levels above R-30 and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. This reduction of insulation from the requirements of Sec-

tion 402.1.1 shall be limited to 500 square feet (46 m²) or 20 percent of the total insulated ceiling area, whichever is less. This reduction shall not apply to the U-factor alternative approach in Section 402.1.3 and the total UA alternative in Section 402.1.4.

402.2.3 Access hatches and doors. Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weatherstripped and insulated to a level equivalent to the insulation on the surrounding surfaces. Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood framed or equivalent baffle or retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed R-value of the loose fill insulation.

402.2.4 Mass walls. Mass walls for the purposes of this chapter shall be considered above-grade walls of concrete block, concrete, insulated concrete form (ICF), masonry cavity, brick (other than brick veneer), earth (adobe, compressed earth block, rammed earth) and solid timber/logs.

402.2.5 Steel-frame ceilings, walls, and floors. Steel-frame ceilings, walls and floors shall meet the insulation requirements of Table 402.2.5 or shall meet the U-factor requirements in Table 402.1.3. The calculation of the U-factor for a steel-frame envelope assembly shall use a series-parallel path calculation method.

Exception: In Climate Zones 1 and 2, the continuous insulation requirements in Table 402.2.4 shall be permitted to be reduced to R-3 for steel frame wall assemblies with studs spaced at 24 inches (610 mm) on center.

TABLE 402.2.5
STEEL-FRAME CEILING, WALL AND FLOOR INSULATION
(*R*-VALUE)

WOOD FRAME <i>R</i> -VALUE REQUIREMENT	COLD-FORMED STEEL EQUIVALENT <i>R</i> -VALUE ^a
Steel Truss Ceilings^b	
R-30	R-38 or R-30 + 3 or R-26 + 5
R-38	R-49 or R-38 + 3
R-49	R-38 + 5
Steel Joist Ceilings^b	
R-30	R-38 in 2 × 4 or 2 × 6 or 2 × 8 R-49 in any framing
R-38	R-49 in 2 × 4 or 2 × 6 or 2 × 8 or 2 × 10
Steel-Framed Wall	
R-13	R-13 + 5 or R-15 + 4 or R-21 + 3 or <u>R-0 + 10</u>
R-19	R-13 + 9 or R-19 + 8 or R-25 + 7
R-21	R-13 + 10 or R-19 + 9 or R-25 + 8
Steel Joist Floor	
R-13	R-19 in 2 × 6 R-19 + 6 in 2 × 8 or 2 × 10
R-19	R-19 + 6 in 2 × 6 R-19 + 12 in 2 × 8 or 2 × 10

a. Cavity insulation *R*-value is listed first, followed by continuous insulation *R*-value.

b. Insulation exceeding the height of the framing shall cover the framing.

402.2.6 Floors. Floor insulation shall be installed to maintain permanent contact with the underside of the subfloor decking.

402.2.7 Basement walls. Walls associated with conditioned basements shall be insulated from the top of the *basement wall* down to 10 feet (3048 mm) below grade or to the basement floor, whichever is less. Walls associated with unconditioned basements shall meet this requirement unless the floor overhead is insulated in accordance with Sections 402.1.1 and 402.2.6.

402.2.8 Slab-on-grade floors. Slab-on-grade floors with a floor surface less than 12 inches (305 mm) below grade shall be insulated in accordance with Table 402.1.1. The insulation shall extend downward from the top of the slab on the outside or inside of the foundation wall. Insulation located below grade shall be extended the distance provided in Table 402.1.1 by any combination of vertical insulation, insulation extending under the slab or insulation extending out from the building. Insulation extending away from the building shall be protected by pavement or by a minimum of 10 inches (254 mm) of soil. The top edge of the insulation installed between the *exterior wall* and the edge of the interior slab shall be permitted to be cut at a 45-degree (0.79 rad) angle away from the *exterior wall*. Slab-edge insulation is not required in jurisdictions designated by the *code official* as having a very heavy termite infestation.

402.2.9 Crawl space walls. As an alternative to insulating floors over crawl spaces, crawl space walls shall be permitted to be insulated when the crawl space is not vented to the outside. Crawl space wall insulation shall be permanently fastened to the wall and extend downward from the floor to the finished grade level and then vertically and/or horizon-

tally for at least an additional 24 inches (610 mm). Exposed earth in unvented crawl space foundations shall be covered with a continuous Class I vapor retarder in accordance with the *International Building Code*. All joints of the vapor retarder shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (153 mm) up the stem wall and shall be attached to the stem wall.

402.2.10 Masonry veneer. Insulation shall not be required on the horizontal portion of the foundation that supports a masonry veneer.

402.2.11 Thermally isolated sunroom insulation. The minimum ceiling insulation *R*-values shall be R-19 in Zones 1 through 4 and R-24 in Zones 5 through 8. The minimum wall *R*-value shall be R-13 in all zones. New wall(s) separating a sunroom from *conditioned space* shall meet the *building thermal envelope* requirements.

402.3 Fenestration. (Prescriptive).

402.3.1 *U*-factor. An area-weighted average of fenestration products shall be permitted to satisfy the *U*-factor requirements.

402.3.2 Glazed fenestration SHGC. An area-weighted average of fenestration products more than 50 percent glazed shall be permitted to satisfy the SHGC requirements.

402.3.3 Glazed fenestration exemption. Up to 15 square feet (1.4 m²) of glazed fenestration per dwelling unit shall be permitted to be exempt from *U*-factor and SHGC requirements in Section 402.1.1. This exemption shall not apply to the *U*-factor alternative approach in Section 402.1.3 and the Total UA alternative in Section 402.1.4.

402.3.4 Opaque door exemption. One side-hinged opaque door assembly up to 24 square feet (2.22 m²) in area is exempted from the *U*-factor requirement in Section 402.1.1. This exemption shall not apply to the *U*-factor alternative approach in Section 402.1.3 and the total UA alternative in Section 402.1.4.

402.3.5 Thermally isolated sunroom *U*-factor. For Zones 4 through 8, the maximum fenestration *U*-factor shall be 0.50 and the maximum skylight *U*-factor shall be 0.75. New windows and doors separating the sunroom from *conditioned space* shall meet the *building thermal envelope* requirements.

402.3.6 Replacement fenestration. Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for *U*-factor and SHGC in Table 402.1.1.

402.4 Air leakage (Mandatory).

402.4.1 Building thermal envelope. The *building thermal envelope* shall be durably sealed to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. The following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material:

1. All joints, seams and penetrations.

2. Site-built windows, doors and skylights.
3. Openings between window and door assemblies and their respective jambs and framing.
4. Utility penetrations.
5. Dropped ceilings or chases adjacent to the thermal envelope.
6. Knee walls.
7. Walls and ceilings separating a garage from conditioned spaces.
8. Behind tubs and showers on exterior walls.
9. Common walls between dwelling units.
10. Attic access openings.
11. Rim joist junction.
12. Other sources of infiltration.

402.4.2 Air sealing and insulation. Building envelope air tightness and insulation installation shall be demonstrated to comply with one of the following options given by Section 402.4.2.1 or 402.4.2.2:

402.4.2.1 Testing option. Building envelope tightness and insulation installation shall be considered acceptable when tested air leakage is less than seven air changes per hour (ACH) when tested with a blower door at a pressure of 33.5 psf (50 Pa). Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off;
6. HVAC ducts shall not be sealed; and
7. Supply and return registers shall not be sealed.

402.4.2.2 Visual inspection option. Building envelope tightness and insulation installation shall be considered acceptable when the items listed in Table 402.4.2, applicable to the method of construction, are field verified. Where required by the *code official*, an *approved* party independent from the installer of the insulation shall inspect the air barrier and insulation.

402.4.3 Fireplaces. New wood-burning fireplaces shall have gasketed doors and outdoor combustion air.

402.4.4 Fenestration air leakage. Windows, skylights and sliding glass doors shall have an air infiltration rate of no

more than 0.3 cfm per square foot (1.5 L/s/m²), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m²), when tested according to NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and *listed* and *labeled* by the manufacturer.

Exceptions: Site-built windows, skylights and doors.

402.4.5 Recessed lighting. Recessed luminaires installed in the *building thermal envelope* shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as meeting ASTM E 283 when tested at 1.57 psf (75 Pa) pressure differential with no more than 2.0 cfm (0.944 L/s) of air movement from the conditioned space to the ceiling cavity. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

402.5 Maximum fenestration U-factor and SHGC (Mandatory). The area-weighted average maximum fenestration U-factor permitted using trade-offs from Section 402.1.4 or 404 shall be 0.48 in Zones 4 and 5 and 0.40 in Zones 6 through 8 for vertical fenestration, and 0.75 in Zones 4 through 8 for skylights. The area-weighted average maximum fenestration SHGC permitted using trade-offs from Section 405 in Zones 1 through 3 shall be 0.50.

SECTION 403 SYSTEMS

403.1 Controls (Mandatory). At least one thermostat shall be provided for each separate heating and cooling system.

403.1.1 Programmable thermostat. Where the primary heating system is a forced-air furnace, at least one thermostat per dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain zone temperatures down to 55°F (13°C) or up to 85°F (29°C). The thermostat shall initially be programmed with a heating temperature set point no higher than 70°F (21°C) and a cooling temperature set point no lower than 78°F (26°C).

403.1.2 Heat pump supplementary heat (Mandatory). Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

403.2 Ducts.

403.2.1 Insulation (Prescriptive). Supply ducts in attics shall be insulated to a minimum of R-8. All other ducts shall be insulated to a minimum of R-6.

Exception: Ducts or portions thereof located completely inside the *building thermal envelope*.

403.2.2 Sealing (Mandatory). All ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed.

Joints and seams shall comply with Section M1601.4.1 of the *International Residential Code*.

Duct tightness shall be verified by either of the following:

NEW

1. Postconstruction test: Leakage to outdoors shall be less than or equal to 8 cfm (226.5 L/min) per 100 ft² (9.29 m²) of *conditioned floor area* or a total leakage less than or equal to 12 cfm (12 L/min) per 100 ft² (9.29 m²) of *conditioned floor area* when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.

2. Rough-in test: Total leakage shall be less than or equal to 6 cfm (169.9 L/min) per 100 ft² (9.29 m²) of *conditioned floor area* when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the roughed in system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 ft² (9.29 m²) of *conditioned floor area*.

Exceptions: Duct tightness test is not required if the air handler and all ducts are located within *conditioned space*.

NEW

**TABLE 402.4.2
AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA**

COMPONENT	CRITERIA
Air barrier and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier. Breaks or joints in the air barrier are filled or repaired. Air-permeable insulation is not used as a sealing material. Air-permeable insulation is inside of an air barrier. - <i>Not in IRC</i>
Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed. Attic access (except unvented attic), knee wall door, or drop down stair is sealed.
Walls	Corners and headers are insulated. Junction of foundation and sill plate is sealed.
Windows and doors	Space between window/door jambs and framing is sealed.
Rim joists	Rim joists are insulated and include an air barrier.
Floors (including above-garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking. Air barrier is installed at any exposed edge of insulation.
Crawl space walls	Insulation is permanently attached to walls. Exposed earth in unvented crawl spaces is covered with Class I vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations, knee walls and flue shafts opening to exterior or unconditioned space are sealed.
Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.
Garage separation	Air sealing is provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures are air tight, IC rated, and sealed to drywall. Exception—fixtures in conditioned space.
Plumbing and wiring	Insulation is placed between outside and pipes. Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring.
Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall.
Electrical/phone box on exterior walls	Air barrier extends behind boxes or air sealed-type boxes are installed.
Common wall	Air barrier is installed in common wall between dwelling units.
HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.
Fireplace	Fireplace walls include an air barrier.

403.2.3 Building cavities (Mandatory). Building framing cavities shall not be used as supply ducts.

403.3 Mechanical system piping insulation (Mandatory). Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

403.4 Circulating hot water systems (Mandatory). All circulating service hot water piping shall be insulated to at least R-2. Circulating hot water systems shall include an automatic or readily *accessible* manual switch that can turn off the hot-water circulating pump when the system is not in use.

403.5 Mechanical ventilation (Mandatory). Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

403.6 Equipment sizing (Mandatory). Heating and cooling equipment shall be sized in accordance with Section M1401.3 of the *International Residential Code*.

403.7 Systems serving multiple dwelling units (Mandatory). Systems serving multiple dwelling units shall comply with Sections 503 and 504 in lieu of Section 403.

403.8 Snow melt system controls (Mandatory). Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F, and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F.

403.9 Pools (Mandatory). Pools shall be provided with energy-conserving measures in accordance with Sections 403.9.1 through 403.9.3.

403.9.1 Pool heaters. All pool heaters shall be equipped with a readily *accessible* on-off switch to allow shutting off the heater without adjusting the thermostat setting. Pool heaters fired by natural gas shall not have continuously burning pilot lights.

403.9.2 Time switches. Time switches that can automatically turn off and on heaters and pumps according to a preset schedule shall be installed on swimming pool heaters and pumps.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Where pumps are required to operate solar- and waste-heat-recovery pool heating systems.

403.9.3 Pool covers. Heated pools shall be equipped with a vapor-retardant pool cover on or at the water surface. Pools heated to more than 90°F (32°C) shall have a pool cover with a minimum insulation value of R-12.

Exception: Pools deriving over 60 percent of the energy for heating from site-recovered energy or solar energy source.

SECTION 404 ELECTRICAL POWER AND LIGHTING SYSTEMS

404.1 Lighting equipment (Prescriptive). A minimum of 50 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps.

SECTION 405 - Not in IRC SIMULATED PERFORMANCE ALTERNATIVE (Performance)

405.1 Scope. This section establishes criteria for compliance using simulated energy performance analysis. Such analysis shall include heating, cooling, and service water heating energy only.

405.2 Mandatory requirements. Compliance with this section requires that the mandatory provisions identified in Section 401.2 be met. All supply and return ducts not completely inside the *building thermal envelope* shall be insulated to a minimum of R-6.

405.3 Performance-based compliance. Compliance based on simulated energy performance requires that a proposed residence (*proposed design*) be shown to have an annual energy cost that is less than or equal to the annual energy cost of the *standard reference design*. Energy prices shall be taken from a source approved by the *code official*, such as the Department of Energy, Energy Information Administration's *State Energy Price and Expenditure Report*. *Code officials* shall be permitted to require time-of-use pricing in energy cost calculations.

Exception: The energy use based on source energy expressed in Btu or Btu per square foot of *conditioned floor area* shall be permitted to be substituted for the energy cost. The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.

405.4 Documentation.

405.4.1 Compliance software tools. Documentation verifying that the methods and accuracy of the compliance software tools conform to the provisions of this section shall be provided to the *code official*.

405.4.2 Compliance report. Compliance software tools shall generate a report that documents that the *proposed design complies with Section 405.3*. The compliance documentation shall include the following information:

1. Address or other identification of the residence;
2. An inspection checklist documenting the building component characteristics of the *proposed design* as listed in Table 405.5.2(1). The inspection checklist shall show results for both the *standard reference design* and the *proposed design*, and shall document all inputs entered by the user necessary to reproduce the results;
3. Name of individual completing the compliance report; and

4. Name and version of the compliance software tool.

Exception: Multiple orientations. When an otherwise identical building model is offered in multiple orientations, compliance for any orientation shall be permitted by documenting that the building meets the performance requirements in each of the four cardinal (north, east, south and west) orientations.

405.4.3 Additional documentation. The *code official* shall be permitted to require the following documents:

1. Documentation of the building component characteristics of the *standard reference design*.
2. A certification signed by the builder providing the building component characteristics of the *proposed design* as given in Table 405.5.2(1).
3. Documentation of the actual values used in the software calculations for the *proposed design*.

405.5 Calculation procedure.

405.5.1 General. Except as specified by this section, the *standard reference design* and *proposed design* shall be configured and analyzed using identical methods and techniques.

405.5.2 Residence specifications. The *standard reference design* and *proposed design* shall be configured and analyzed as specified by Table 405.5.2(1). Table 405.5.2(1) shall include by reference all notes contained in Table 402.1.1.

405.6 Calculation software tools.

405.6.1 Minimum capabilities. Calculation procedures used to comply with this section shall be software tools capable of calculating the annual energy consumption of all building elements that differ between the *standard reference design* and the *proposed design* and shall include the following capabilities:

1. Computer generation of the *standard reference design* using only the input for the *proposed design*. The calculation procedure shall not allow the user to directly modify the building component characteristics of the *standard reference design*.
2. Calculation of whole-building (as a single *zone*) sizing for the heating and cooling equipment in the *standard reference design* residence in accordance with Section M1401.3 of the *International Residential Code*.
3. Calculations that account for the effects of indoor and outdoor temperatures and part-load ratios on the performance of heating, ventilating and air-conditioning equipment based on climate and equipment sizing.
4. Printed *code official* inspection checklist listing each of the *proposed design* component characteristics from Table 405.5.2(1) determined by the analysis to provide compliance, along with their respective performance ratings (e.g., *R*-value, *U*-factor, SHGC, HSPF, AFUE, SEER, EF, etc.).

405.6.2 Specific approval. Performance analysis tools meeting the applicable sections of Section 405 shall be permitted to be *approved*. Tools are permitted to be *approved* based on meeting a specified threshold for a jurisdiction. The *code official* shall be permitted to approve tools for a specified application or limited scope.

405.6.3 Input values. When calculations require input values not specified by Sections 402, 403, 404 and 405, those input values shall be taken from an *approved* source.

CHAPTER 4 [RE]

RESIDENTIAL ENERGY EFFICIENCY

SECTION R401 GENERAL

R401.1 Scope. This chapter applies to residential buildings.

R401.2 Compliance. Projects shall comply with Sections identified as “mandatory” and with either sections identified as “prescriptive” or the performance approach in Section R405.

R401.3 Certificate (Mandatory). A permanent certificate shall be completed and posted on or in the electrical distribution panel by the builder or registered design professional. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall list the predominant *R*-values of insulation installed in or on ceiling/roof, walls, foundation (slab, *basement wall*, crawlspace wall and/or floor) and ducts outside conditioned spaces; *U*-factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration, and the results from any required duct system and building envelope air leakage testing done on the building. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficiencies of heating,

cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall list “gas-fired unvented room heater,” “electric furnace” or “baseboard electric heater,” as appropriate. An efficiency shall not be *listed* for gas-fired unvented room heaters, electric furnaces or electric baseboard heaters.

SECTION R402 BUILDING THERMAL ENVELOPE

R402.1 General (Prescriptive). The *building thermal envelope* shall meet the requirements of Sections R402.1.1 through R402.1.4.

R402.1.1 Insulation and fenestration criteria. The *building thermal envelope* shall meet the requirements of Table R402.1.1 based on the climate zone specified in Chapter 3.

R402.1.2 *R*-value computation. Insulation material used in layers, such as framing cavity insulation and insulating sheathing, shall be summed to compute the component *R*-value. The manufacturer’s settled *R*-value shall be used for

TABLE R402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a

CLIMATE ZONE	FENESTRATION <i>U</i> -FACTOR ^b	SKYLIGHT ^b <i>U</i> -FACTOR	GLAZED FENESTRATION SHGC ^{b, c}	CEILING <i>R</i> -VALUE	WOOD FRAME WALL <i>R</i> -VALUE	MASS WALL <i>R</i> -VALUE ^e	FLOOR <i>R</i> -VALUE	BASEMENT ^c WALL <i>R</i> -VALUE	SLAB ^d <i>R</i> -VALUE & DEPTH	CRAWL SPACE ^c WALL <i>R</i> -VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13+5 ^h	8/13	19	5/13 ^f	0	0
4 except Marine	0.35	0.55	0.40	49	20 or 13+5 ^h	8/13	19	10 /13	0	5/13
5 and Marine 4	0.32	0.55	NR	49	20 or 13+5 ^h	13/17	30 ^g	15/19	10, 2 ft	10/13
6	0.32	0.55	NR	49	20+5 or 13+10 ^h	15/20	30 ^g	15/19	10, 4 ft	15/19
7 and 8	0.32	0.55	NR	49	20+5 or 13+10 ^h	19/21	38 ^g	15/19	10, 4 ft	15/19

For SI: 1 foot = 304.8 mm.

- a. *R*-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *R*-value specified in the table.
- b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.
- c. “15/19” means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. “15/19” shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. “10/13” means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
- d. R-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Climate Zones 1 through 3 for heated slabs.
- e. There are no SHGC requirements in the Marine Zone.
- f. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.
- g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
- h. First value is cavity insulation, second is continuous insulation or insulated siding, so “13+5” means R-13 cavity insulation plus R-5 continuous insulation or insulated siding. If structural sheathing covers 40 percent or less of the exterior, continuous insulation *R*-value shall be permitted to be reduced by no more than R-3 in the locations where structural sheathing is used – to maintain a consistent total sheathing thickness.
- i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.

TABLE R402.1.3
EQUIVALENT *U*-FACTORS^a

CLIMATE ZONE	FENESTRATION <i>U</i> -FACTOR	SKYLIGHT <i>U</i> -FACTOR	CEILING <i>U</i> -FACTOR	FRAME WALL <i>U</i> -FACTOR	MASS WALL <i>U</i> -FACTOR ^b	FLOOR <i>U</i> -FACTOR	BASEMENT WALL <i>U</i> -FACTOR	CRAWL SPACE WALL <i>U</i> -FACTOR
1	0.50	0.75	0.035	0.082	0.197	0.064	0.360	0.477
2	0.40	0.65	0.030	0.082	0.165	0.064	0.360	0.477
3	0.35	0.55	0.030	0.057	0.098	0.047	0.091 ^c	0.136
4 except Marine	0.35	0.55	0.026	0.057	0.098	0.047	0.059	0.065
5 and Marine 4	0.32	0.55	0.026	0.057	0.082	0.033	0.050	0.055
6	0.32	0.55	0.026	0.048	0.060	0.033	0.050	0.055
7 and 8	0.32	0.55	0.026	0.048	0.057	0.028	0.050	0.055

a. Nonfenestration *U*-factors shall be obtained from measurement, calculation or an approved source.

b. When more than half the insulation is on the interior, the mass wall *U*-factors shall be a maximum of 0.17 in Climate Zone 1, 0.14 in Climate Zone 2, 0.12 in Climate Zone 3, 0.087 in Climate Zone 4 except Marine, 0.065 in Climate Zone 5 and Marine 4, and 0.057 in Climate Zones 6 through 8.

c. Basement wall *U*-factor of 0.360 in warm-humid locations as defined by Figure R301.1 and Table R301.1.

blown insulation. Computed *R*-values shall not include an *R*-value for other building materials or air films.

R402.1.3 *U*-factor alternative. An assembly with a *U*-factor equal to or less than that specified in Table R402.1.3 shall be permitted as an alternative to the *R*-value in Table R402.1.1.

R402.1.4 Total UA alternative. If the total *building thermal envelope* UA (sum of *U*-factor times assembly area) is less than or equal to the total UA resulting from using the *U*-factors in Table R402.1.3 (multiplied by the same assembly area as in the proposed building), the building shall be considered in compliance with Table R402.1.1. The UA calculation shall be done using a method consistent with the ASHRAE *Handbook of Fundamentals* and shall include the thermal bridging effects of framing materials. The SHGC requirements shall be met in addition to UA compliance.

R402.2 Specific insulation requirements (Prescriptive). In addition to the requirements of Section R402.1, insulation shall meet the specific requirements of Sections R402.2.1 through R402.2.12.

R402.2.1 Ceilings with attic spaces. When Section R402.1.1 would require R-38 in the ceiling, R-30 shall be deemed to satisfy the requirement for R-38 wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Similarly, R-38 shall be deemed to satisfy the requirement for R-49 wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves. This reduction shall not apply to the *U*-factor alternative approach in Section R402.1.3 and the total UA alternative in Section R402.1.4.

R402.2.2 Ceilings without attic spaces. Where Section R402.1.1 would require insulation levels above R-30 and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. This reduction of insulation from the requirements of Section R402.1.1 shall be limited to 500 square feet (46 m²) or 20 percent of the total insulated ceiling area, whichever is less. This reduction shall not apply to

the *U*-factor alternative approach in Section R402.1.3 and the total UA alternative in Section R402.1.4.

R402.2.3 Eave baffle. For air permeable insulations in vented attics, a baffle shall be installed adjacent to soffit and eave vents. Baffles shall maintain an opening equal or greater than the size of the vent. The baffle shall extend over the top of the attic insulation. The baffle shall be permitted to be any solid material.

R402.2.4 Access hatches and doors. Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weatherstripped and insulated to a level equivalent to the insulation on the surrounding surfaces. Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood framed or equivalent baffle or retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed *R*-value of the loose fill insulation.

R402.2.5 Mass walls. Mass walls for the purposes of this chapter shall be considered above-grade walls of concrete block, concrete, insulated concrete form (ICF), masonry cavity, brick (other than brick veneer), earth (adobe, compressed earth block, rammed earth) and solid timber/logs.

R402.2.6 Steel-frame ceilings, walls, and floors. Steel-frame ceilings, walls, and floors shall meet the insulation requirements of Table R402.2.6 or shall meet the *U*-factor requirements of Table R402.1.3. The calculation of the *U*-factor for a steel-frame envelope assembly shall use a series-parallel path calculation method.

R402.2.7 Floors. Floor insulation shall be installed to maintain permanent contact with the underside of the sub-floor decking.

R402.2.8 Basement walls. Walls associated with conditioned basements shall be insulated from the top of the *basement wall* down to 10 feet (3048 mm) below grade or to the basement floor, whichever is less. Walls associated with unconditioned basements shall meet this requirement unless the floor overhead is insulated in accordance with Sections R402.1.1 and R402.2.7.

TABLE R402.2.6
STEEL-FRAME CEILING, WALL AND FLOOR INSULATION
(R-VALUE)

WOOD FRAME R-VALUE REQUIREMENT	COLD-FORMED STEEL EQUIVALENT R-VALUE ^a
Steel Truss Ceilings^b	
R-30	R-38 or R-30 + 3 or R-26 + 5
R-38	R-49 or R-38 + 3
R-49	R-38 + 5
Steel Joist Ceilings^b	
R-30	R-38 in 2 × 4 or 2 × 6 or 2 × 8 R-49 in any framing
R-38	R-49 in 2 × 4 or 2 × 6 or 2 × 8 or 2 × 10
Steel-Framed Wall 16" O.C.	
R-13	R-13 + 4.2 or R-19 + 2.1 or R-21 + 2.8 or R-0 + 9.3 or R-15 + 3.8 or R-21 + 3.1
R-13 + 3	R-0 + 11.2 or R-13 + 6.1 or R-15 + 5.7 or R-19 + 5.0 or R-21 + 4.7
R-20	R-0 + 14.0 or R-13 + 8.9 or R-15 + 8.5 or R-19 + 7.8 or R-19 + 6.2 or R-21 + 7.5
R-20 + 5	R-13 + 12.7 or R-15 + 12.3 or R-19 + 11.6 or R-21 + 11.3 or R-25 + 10.9
R-21	R-0 + 14.6 or R-13 + 9.5 or R-15 + 9.1 or R-19 + 8.4 or R-21 + 8.1 or R-25 + 7.7
Steel Framed Wall, 24" O.C.	
R-13	R-0 + 9.3 or R-13 + 3.0 or R-15 + 2.4
R-13 + 3	R-0 + 11.2 or R-13 + 4.9 or R-15 + 4.3 or R-19 + 3.5 or R-21 + 3.1
R-20	R-0 + 14.0 or R-13 + 7.7 or R-15 + 7.1 or R-19 + 6.3 or R-21 + 5.9
R-20 + 5	R-13 + 11.5 or R-15 + 10.9 or R-19 + 10.1 or R-21 + 9.7 or R-25 + 9.1
R-21	R-0 + 14.6 or R-13 + 8.3 or R-15 + 7.7 or R-19 + 6.9 or R-21 + 6.5 or R-25 + 5.9
Steel Joist Floor	
R-13	R-19 in 2 × 6, or R-19 + 6 in 2 × 8 or 2 × 10
R-19	R-19 + 6 in 2 × 6, or R-19 + 12 in 2 × 8 or 2 × 10

a. Cavity insulation R-value is listed first, followed by continuous insulation R-value.

b. Insulation exceeding the height of the framing shall cover the framing.

R402.2.9 Slab-on-grade floors. Slab-on-grade floors with a floor surface less than 12 inches (305 mm) below grade shall be insulated in accordance with Table R402.1.1. The insulation shall extend downward from the top of the slab on the outside or inside of the foundation wall. Insulation located below grade shall be extended the distance provided in Table R402.1.1 by any combination of vertical insulation, insulation extending under the slab or insulation extending out from the building. Insulation extending away from the building shall be protected by pavement or by a minimum of 10 inches (254 mm) of soil. The top edge of the insulation installed between the *exterior wall* and the edge of the interior slab shall be permitted to be cut at a 45-degree (0.79 rad) angle away from the *exterior wall*. Slab-edge insulation is not required in jurisdictions designated by the *code official* as having a very heavy termite infestation.

R402.2.10 Crawl space walls. As an alternative to insulating floors over crawl spaces, crawl space walls shall be permitted to be insulated when the crawl space is not vented to the outside. Crawl space wall insulation shall be permanently fastened to the wall and extend downward from the floor to the finished grade level and then vertically and/or horizontally for at least an additional 24 inches (610 mm). Exposed earth in unvented crawl space foundations shall be covered with a continuous Class I vapor retarder in accordance with the *International Building Code* or *International Residential Code*, as applicable. All joints of the vapor retarder shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (153 mm) up the stem wall and shall be attached to the stem wall.

R402.2.11 Masonry veneer. Insulation shall not be required on the horizontal portion of the foundation that supports a masonry veneer.

R402.2.12 Sunroom insulation. All *sunrooms* enclosing conditioned space shall meet the insulation requirements of this code.

Exception: For *sunrooms* with *thermal isolation*, and enclosing conditioned space, the following exceptions to the insulation *requirements* of this code shall apply:

1. The minimum ceiling insulation R-values shall be R-19 in Climate Zones 1 through 4 and R-24 in Climate Zones 5 through 8; and
2. The minimum wall R-value shall be R-13 in all climate zones. Wall(s) separating a *sunroom* with a *thermal isolation* from *conditioned space* shall meet the *building thermal envelope* requirements of this code.

R402.3 Fenestration (Prescriptive). In addition to the requirements of Section R402, fenestration shall comply with Sections R402.3.1 through R402.3.6.

R402.3.1 U-factor. An area-weighted average of fenestration products shall be permitted to satisfy the U-factor requirements.

R402.3.2 Glazed fenestration SHGC. An area-weighted average of fenestration products more than 50-percent glazed shall be permitted to satisfy the SHGC requirements.

R402.3.3 Glazed fenestration exemption. Up to 15 square feet (1.4 m²) of glazed fenestration per dwelling unit shall be permitted to be exempt from U-factor and SHGC requirements in Section R402.1.1. This exemption shall not apply to the U-factor alternative approach in Section R402.1.3 and the Total UA alternative in Section R402.1.4.

R402.3.4 Opaque door exemption. One side-hinged opaque door assembly up to 24 square feet (2.22 m²) in area is exempted from the U-factor requirement in Section R402.1.1. This exemption shall not apply to the U-factor alternative approach in Section R402.1.3 and the total UA alternative in Section R402.1.4.

R402.3.5 Sunroom U-factor. All *sunrooms* enclosing conditioned space shall meet the fenestration requirements of this code.

Exception: For *sunrooms* with *thermal isolation* and enclosing conditioned space, in Climate Zones 4 through 8, the following exceptions to the fenestration requirements of this code shall apply:

1. The maximum fenestration *U*-factor shall be 0.45; and

2. The maximum skylight *U*-factor shall be 0.70. New fenestration separating the *sunroom* with *thermal isolation* from *conditioned space* shall meet the *building thermal envelope* requirements of this code.

R402.3.6 Replacement fenestration. Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for *U*-factor and SHGC in Table R402.1.1.

**TABLE R402.4.1.1
AIR BARRIER AND INSULATION INSTALLATION**

COMPONENT	CRITERIA ^a
Air barrier and thermal barrier	A continuous air barrier shall be installed in the building envelope. Exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed. Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier sealed. Access openings, drop down stair or knee wall doors to unconditioned attic spaces shall be sealed.
Walls	Corners and headers shall be insulated and the junction of the foundation and sill plate shall be sealed. The junction of the top plate and top of exterior walls shall be sealed. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier. Knee walls shall be sealed.
Windows, skylights and doors	The space between window/door jambs and framing and skylights and framing shall be sealed.
Rim joists	Rim joists shall be insulated and include the air barrier.
Floors (including above-garage and cantilevered floors)	Insulation shall be installed to maintain permanent contact with underside of subfloor decking. The air barrier shall be installed at any exposed edge of insulation.
Crawl space walls	Where provided in lieu of floor insulation, insulation shall be permanently attached to the crawlspace walls. Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.
Narrow cavities	Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be air tight, IC rated, and sealed to the drywall.
Plumbing and wiring	Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.
Shower/tub on exterior wall	Exterior walls adjacent to showers and tubs shall be insulated and the air barrier installed separating them from the showers and tubs.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air sealed boxes shall be installed.
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the sub-floor or drywall.
Fireplace	An air barrier shall be installed on fireplace walls. Fireplaces shall have gasketed doors.

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

R402.4 Air leakage (Mandatory). The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.4.

R402.4.1 Building thermal envelope. The *building thermal envelope* shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

R402.4.1.1 Installation. The components of the *building thermal envelope* as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. Where required by the *code official*, an *approved* third party shall inspect all components and verify compliance.

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour in Climate Zones 1 and 2, and 3 air changes per hour in Climate Zones 3 through 8. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the *code official*, testing shall be conducted by an *approved* third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures;
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures;
3. Interior doors, if installed at the time of the test, shall be open;
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling systems, if installed at the time of the test, shall be turned off; and
6. Supply and return registers, if installed at the time of the test, shall be fully open.

R402.4.2 Fireplaces. New wood-burning fireplaces shall have tight-fitting flue dampers and outdoor combustion air.

R402.4.3 Fenestration air leakage. Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m²), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m²), when tested according to NFRC 400 or AAMA/

WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and *listed* and *labeled* by the manufacturer.

Exception: Site-built windows, skylights and doors.

R402.4.4 Recessed lighting. Recessed luminaires installed in the *building thermal envelope* shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and *labeled* as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E 283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

R402.5 Maximum fenestration U-factor and SHGC (Mandatory). The area-weighted average maximum fenestration U-factor permitted using tradeoffs from Section R402.1.4 or R405 shall be 0.48 in Climate Zones 4 and 5 and 0.40 in Climate Zones 6 through 8 for vertical fenestration, and 0.75 in Climate Zones 4 through 8 for skylights. The area-weighted average maximum fenestration SHGC permitted using tradeoffs from Section R405 in Climate Zones 1 through 3 shall be 0.50.

SECTION R403 SYSTEMS

R403.1 Controls (Mandatory). At least one thermostat shall be provided for each separate heating and cooling system.

R403.1.1 Programmable thermostat. Where the primary heating system is a forced-air furnace, at least one thermostat per dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain *zone* temperatures down to 55°F (13°C) or up to 85°F (29°C). The thermostat shall initially be programmed with a heating temperature set point no higher than 70°F (21°C) and a cooling temperature set point no lower than 78°F (26°C).

R403.1.2 Heat pump supplementary heat (Mandatory). Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

R403.2 Ducts. Ducts and air handlers shall be in accordance with Sections R403.2.1 through R403.2.3.

R403.2.1 Insulation (Prescriptive). Supply ducts in attics shall be insulated to a minimum of R-8. All other ducts shall be insulated to a minimum of R-6.

Exception: Ducts or portions thereof located completely inside the *building thermal envelope*.

R403.2.2 Sealing (Mandatory). Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply

with either the *International Mechanical Code* or *International Residential Code*, as applicable.

Exceptions:

1. Air-impermeable spray foam products shall be permitted to be applied without additional joint seals.
2. Where a duct connection is made that is partially inaccessible, three screws or rivets shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.
3. Continuously welded and locking-type longitudinal joints and seams in ducts operating at static pressures less than 2 inches of water column (500 Pa) pressure classification shall not require additional closure systems.

Duct tightness shall be verified by either of the following:

1. Postconstruction test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
2. Rough-in test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm (85 L/min) per 100 square feet (9.29 m²) of conditioned floor area.

Exception: The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope.

R403.2.2.1 Sealed air handler. Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design air flow rate when tested in accordance with ASHRAE 193.

R403.2.3 Building cavities (Mandatory). Building framing cavities shall not be used as ducts or plenums.

R403.3 Mechanical system piping insulation (Mandatory). Mechanical system piping capable of carrying fluids

above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

R403.3.1 Protection of piping insulation. Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance, and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

R403.4 Service hot water systems. Energy conservation measures for service hot water systems shall be in accordance with Sections R403.4.1 and R403.4.2.

R403.4.1 Circulating hot water systems (Mandatory).

Circulating hot water systems shall be provided with an automatic or readily *accessible* manual switch that can turn off the hot-water circulating pump when the system is not in use.

R403.4.2 Hot water pipe insulation (Prescriptive). Insulation for hot water pipe with a minimum thermal resistance (*R*-value) of R-3 shall be applied to the following:

1. Piping larger than 3/4 inch nominal diameter.
2. Piping serving more than one dwelling unit.
3. Piping from the water heater to kitchen outlets.
4. Piping located outside the conditioned space.
5. Piping from the water heater to a distribution manifold.
6. Piping located under a floor slab.
7. Buried piping.
8. Supply and return piping in recirculation systems other than demand recirculation systems.
9. Piping with run lengths greater than the maximum run lengths for the nominal pipe diameter given in Table R403.4.2.

All remaining piping shall be insulated to at least R-3 or meet the run length requirements of Table R403.4.2.

**TABLE R403.4.2
MAXIMUM RUN LENGTH (feet)^a**

Nominal Pipe Diameter of Largest Diameter Pipe in the Run (inch)	3/8	1/2	3/4	> 3/4
Maximum Run Length	30	20	10	5

For SI: 1 inch = 25.4 mm, 1 foot 304.8 mm.

a. Total length of all piping from the distribution manifold or the recirculation loop to a point of use.

R403.5 Mechanical ventilation (Mandatory). The building shall be provided with ventilation that meets the requirements

**TABLE R403.5.1
MECHANICAL VENTILATION SYSTEM FAN EFFICACY**

FAN LOCATION	AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY (CFM/WATT)	AIR FLOW RATE MAXIMUM (CFM)
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	< 90
Bathroom, utility room	90	2.8 cfm/watt	Any

For SI: 1 cfm = 28.3 L/min.

of the *International Residential Code* or *International Mechanical Code*, as applicable, or with other approved means of ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

R403.5.1 Whole-house mechanical ventilation system fan efficacy. Mechanical ventilation system fans shall meet the efficacy requirements of Table R403.5.1.

Exception: Where mechanical ventilation fans are integral to tested and listed HVAC equipment, they shall be powered by an electronically commutated motor.

R403.6 Equipment Sizing (Mandatory). Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other *approved* heating and cooling calculation methodologies.

R403.7 Systems serving multiple dwelling units (Mandatory). Systems serving multiple dwelling units shall comply with Sections C403 and C404 of the IECC—Commercial Provisions in lieu of Section R403.

R403.8 Snow melt system controls (Mandatory). Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F, and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F.

R403.9 Pools and inground permanently installed spas (Mandatory). Pools and inground permanently installed spas shall comply with Sections R403.9.1 through R403.9.3.

R403.9.1 Heaters. All heaters shall be equipped with a readily *accessible* on-off switch that is mounted outside of the heater to allow shutting off the heater without adjusting the thermostat setting. Gas-fired heaters shall not be equipped with constant burning pilot lights.

R403.9.2 Time switches. Time switches or other control method that can automatically turn off and on heaters and pumps according to a preset schedule shall be installed on all heaters and pumps. Heaters, pumps and motors that have built in timers shall be deemed in compliance with this requirement.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Where pumps are required to operate solar- and waste-heat-recovery pool heating systems.

R403.9.3 Covers. Heated pools and inground permanently installed spas shall be provided with a vapor-retardant cover.

Exception: Pools deriving over 70 percent of the energy for heating from site-recovered energy, such as a heat pump or solar energy source computed over an operating season.

SECTION R404 ELECTRICAL POWER AND LIGHTING SYSTEMS (MANDATORY)

R404.1 Lighting equipment (Mandatory). A minimum of 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or a minimum of 75 percent of the permanently installed lighting fixtures shall contain only high efficacy lamps.

Exception: Low-voltage lighting shall not be required to utilize high-efficiency lamps.

R404.1.1 Lighting equipment (Mandatory). Fuel gas lighting systems shall not have continuously burning pilot lights.

SECTION R405 SIMULATED PERFORMANCE ALTERNATIVE (PERFORMANCE)

R405.1 Scope. This section establishes criteria for compliance using simulated energy performance analysis. Such analysis shall include heating, cooling, and service water heating energy only.

R405.2 Mandatory requirements. Compliance with this section requires that the mandatory provisions identified in Section R401.2 be met. All supply and return ducts not completely inside the *building thermal envelope* shall be insulated to a minimum of R-6.

R405.3 Performance-based compliance. Compliance based on simulated energy performance requires that a proposed residence (*proposed design*) be shown to have an annual energy cost that is less than or equal to the annual energy cost of the *standard reference design*. Energy prices shall be taken from a source *approved* by the *code official*, such as the Department of Energy, Energy Information Administration's *State Energy Price and Expenditure Report*. *Code officials* shall be permitted to require time-of-use pricing in energy cost calculations.

Exception: The energy use based on source energy expressed in Btu or Btu per square foot of *conditioned floor area* shall be permitted to be substituted for the energy cost. The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.

R405.4 Documentation. Documentation of the software used for the performance design and the parameters for the building shall be in accordance with Sections R405.4.1 through R405.4.3.

R405.4.1 Compliance software tools. Documentation verifying that the methods and accuracy of the compliance software tools conform to the provisions of this section shall be provided to the *code official*.

R405.4.2 Compliance report. Compliance software tools shall generate a report that documents that the *proposed*

design complies with Section R405.3. The compliance documentation shall include the following information:

1. Address or other identification of the residence;
2. An inspection checklist documenting the building component characteristics of the *proposed design* as listed in Table R405.5.2(1). The inspection checklist shall show results for both the *standard reference design* and the *proposed design*, and shall document all inputs entered by the user necessary to reproduce the results;
3. Name of individual completing the compliance report; and
4. Name and version of the compliance software tool.

Exception: Multiple orientations. When an otherwise identical building model is offered in multiple orientations, compliance for any orientation shall be permitted by documenting that the building meets the performance requirements in each of the four cardinal (north, east, south and west) orientations.

R405.4.3 Additional documentation. The *code official* shall be permitted to require the following documents:

1. Documentation of the building component characteristics of the *standard reference design*.
2. A certification signed by the builder providing the building component characteristics of the *proposed design* as given in Table R405.5.2(1).
3. Documentation of the actual values used in the software calculations for the *proposed design*.

R405.5 Calculation procedure. Calculations of the performance design shall be in accordance with Sections R405.5.1 and R405.5.2.

R405.5.1 General. Except as specified by this section, the *standard reference design* and *proposed design* shall be configured and analyzed using identical methods and techniques.

R405.5.2 Residence specifications. The *standard reference design* and *proposed design* shall be configured and analyzed as specified by Table R405.5.2(1). Table R405.5.2(1) shall include by reference all notes contained in Table R402.1.1.

R405.6 Calculation software tools. Calculation software, where used, shall be in accordance with Sections R405.6.1 through R405.6.3.

R405.6.1 Minimum capabilities. Calculation procedures used to comply with this section shall be software tools capable of calculating the annual energy consumption of all building elements that differ between the *standard reference design* and the *proposed design* and shall include the following capabilities:

1. Computer generation of the *standard reference design* using only the input for the *proposed design*. The calculation procedure shall not allow the user to directly modify the building component characteristics of the *standard reference design*.

2. Calculation of whole-building (as a single zone) sizing for the heating and cooling equipment in the *standard reference design* residence in accordance with Section R403.6.

3. Calculations that account for the effects of indoor and outdoor temperatures and part-load ratios on the performance of heating, ventilating and air-conditioning equipment based on climate and equipment sizing.

4. Printed *code official* inspection checklist listing each of the *proposed design* component characteristics from Table R405.5.2(1) determined by the analysis to provide compliance, along with their respective performance ratings (e.g., R-value, U-factor, SHGC, HSPF, AFUE, SEER, EF, etc.).

R405.6.2 Specific approval. Performance analysis tools meeting the applicable sections of Section R405 shall be permitted to be *approved*. Tools are permitted to be *approved* based on meeting a specified threshold for a jurisdiction. The *code official* shall be permitted to approve tools for a specified application or limited scope.

R405.6.3 Input values. When calculations require input values not specified by Sections R402, R403, R404 and R405, those input values shall be taken from an *approved* source.



Salt Lake City Residents Buying 2012 IECC Homes Will Save Thousands

An Analysis of Homeowner Profit after Paying Incremental Construction Costs for New Single Family Homes Meeting the Building Energy Code

HIGHLIGHTS

- Energy savings of \$29 - \$30 each month, more than three times incremental mortgage payment.
- Break-even on additional down payment and incremental mortgage payment in 17 – 22 months.
- Energy cost savings are estimated at between \$347 and \$361 per year, depending on the exterior wall type used by builders.
- 2012 IECC home owners pocket \$6,926 - \$7,800 in net profits over mortgage term.

SUMMARY

Salt Lake City residents buying new single family homes meeting the 2012 International Energy Conservation Code (IECC) will pocket between \$6,926 to \$7,800 in net energy savings over a 30 year mortgage term, according to an analysis of energy savings and incremental construction costs by the Building Codes Assistance Project and ICF, International.

The energy savings from the 2012 code are enough to pay back the buyer's additional down payment and incremental mortgage cost in approximately 17 to 22 months (*sooner if the homebuyer puts less than 20% down*). **After that date, the owner continues to pocket between \$245 and \$273 in estimated profit annually—money that would otherwise go to pay higher utility bills.** These net savings will be even greater if energy costs rise over the next 30 years.

This report assesses energy savings and incremental construction costs of new, 2,400 square foot single family homes in Salt Lake City that meet the latest model energy code, the 2012 IECC, compared to the current code in effect, the 2006 IECC. Specifically, this analysis finds an average new home meeting the 2012 IECC will cost an additional \$1,926 to \$2,215 over the construction costs of meeting the current energy code. Energy cost savings are estimated at between \$347 and \$361 per year, depending on the exterior wall type used by builders.

Stated differently, **monthly utility bill savings to the homeowner are more than three times as much as the additional mortgage payment needed to cover the added first-cost of energy saving features required by the 2012 code.**

ENERGY SAVINGS AND CONSTRUCTION COST METHODOLOGY

To calculate energy savings and incremental construction costs, this analysis defined a “typical” single family house to represent new residential development in Salt Lake City. The home modeled is two stories in height, with exterior dimensions of 30 by 40 feet with wood-framed walls and a full basement foundation. This size and foundation type is based on regional construction practices. The home size modeled is 2,400 square feet—which is also the approximate size of the average new home built nationwide.

For the purposes of this analysis we assume a baseline home that meets the requirements of the 2006 IECC, which is the city's current code. Although some leading builders are already meeting or exceeding many elements of the 2012 IECC already, for purposes of this analysis we assume a baseline home that

exactly meets the requirements of the 2006 IECC. Also, although we err on the side of good building practice, in an effort to be conservative we have included some incremental costs that may not be necessary. For instance, although it is a good building practice for builders to install conventional “hard ducted” return air ducts, some builders may be using joist cavities (panned floor or enclosed interior wall cavities) in lieu of conventional “hard ducted,” metal or other return ducts. In an effort to anticipate this possible cost (and others) for some builders, we include the incremental costs of upgrading to hard ducted return ducts, which are required in the 2012 IECC.

Using the 2,400 square foot model home as a baseline, we calculated incremental costs by identifying the building components that would have to be upgraded from the current 2006 IECC, according to the prescriptive requirements in the 2012 IECC. These changes include increased ceiling insulation from R-38 to R-49 blown-in insulation, a window upgrade to meet a lower U-factor, improved house air sealing and testing, insulating hot water pipes, increasing the percentage of compact florescent bulbs in hard-wired fixtures from 0 to 75 percent, a bathroom vent fan upgrade, upgrading from panned to “hard ducted” return ducts, sealing and insulating the attic hatch, and upgrading to programmable thermostats. Additionally, meeting the latest code will require an upgrade of basement insulation from R-10 to R-15.

Energy savings were modeled by ICF International (ICFI), an international energy consulting firm with extensive experience in the use of hourly building energy simulation software to estimate energy performance and energy savings of alternative building codes and design concepts. Although the values included in the analysis represent a careful, independent technical judgment by ICFI staff, it should be kept in mind that – like any such analysis – the results depend on a number of assumptions about the physical features of a typical new home, operating practices, energy prices, and other factors.

Both the existing 2006 IECC and the new 2012 IECC codes allow a builder to choose among a number of alternatives to comply with the code. In this case, ICFI conservatively chose to compare the results from the prescriptive path of each version of the code. ICFI uses Beacon™, an hourly simulation model that utilizes DOE-2 or EnergyPlus, and summarizes building performance in terms of estimated annual energy costs, based on long-term average weather conditions in a given climate zone (city), DOE/EIA state level energy costs. ICFI also estimates energy consumption by end-use, fuel type, electricity peak demand, and air conditioner size in each prototype home. More details of the modeling assumptions used in this analysis are available on request.

INCREMENTAL COSTS

To estimate incremental costs, we rely on construction costs from the well-regarded *2011 RS Means Contractor's Pricing Guide* to approximate actual costs of new home construction. This resource is known to be conservative and is useful for this analysis because all estimated construction costs are inclusive of material costs, labor, and contractor overhead and profit.¹

Attic Insulation

Among other changes, the 2012 IECC requires builders to upgrade blown-in ceiling (attic) insulation from R-38 to R-49, which is estimated by RS Means to cost an additional \$399 per new home. Builders will also need to make window upgrades to meet the 2012 IECC. To meet the improved U- factors for the 2012 IECC (.32 from .35). This added cost is conservatively estimated by the Efficient Windows Collaborative (EWC) as no more than \$1.00 per square foot of window area. It is important to note that many builders may

¹ RS Means also includes a location factor, which provides an estimate of local costs as a percentage of RS Means national average estimates. For this analysis, the location factor is 81%, indicating that construction costs in Salt Lake City are approximately 19% lower than the national average.

already install windows that already meet the 2012 IECC slightly-improved requirements, but in an effort to be conservative (and strictly compare the two codes) this analysis assumes that builders are currently using the least-cost window to meet existing code requirements.² Total window incremental costs are estimated as \$357.

Whole House Air Leakage

Additionally, we estimate that the additional required air sealing in the 2012 IECC and the required whole house air leakage (commonly known as “blower door”) and duct leakage testing will add about \$350 per new home.³ Because the resulting home will have fewer air and duct leaks to the outside, ventilation will have to be improved, a cost we estimate at \$180 for upgrading one bathroom vent fan to a unit with an Energy Star rating along with the installation of an automatic control which is set to automatically exhaust indoor air.⁴

Hot Water Distribution Lines

An additional 2012 IECC code change will require builders to insulate hot water distribution lines to kitchens. We believe the cost impact of this change is small, as R-3 insulation costs less than 50 cents per linear foot and most insulation products can be “clipped” around supply pipes after the plumbing rough-in.⁵ As a result, this cost is estimated at \$100 per new home. Builders will also have to install high-efficiency lights in 75 percent of hard-wired fixtures, up from 10 percent in the 2006 IECC. Usually, this requirement is met with compact florescent lights (CFLs). Our analysis estimates that the upgrade of 75 percent of fixtures will cost no more than \$50. Builders will also have to upgrade conventional thermostats to programmable thermostats, a cost which is estimated as \$50.

Sealing and Insulate Attic Hatch

To meet the 2012 IECC we also estimate an additional \$100 to seal and insulate the attic hatch. This cost varies by home, and depends on whether or not attic access is achieved through a wall opening (such as a door) or via an overhead pull-down stair, or simple hatch. For wall openings, cost is expected to be much lower, as builders can simply adhere surplus insulation to the unconditioned side of the door. For attic pull-down stairs, builders can place a variety of kits over stair hatch, but costs are higher. Prior analysis for pull-down stair insulation and sealing completed in conjunction with the Home Builders Association (HBA) of South Carolina estimated this cost to be \$100—an estimate which has also been used in this analysis in an effort to default to the most conservative option.

Hard Ducted Returns

For builders that are currently using “panned” floor joists as return air ducts, meeting the 2012 IECC will require an upgrade to conventional “hard ducted” returns in basement ceilings. Many builders already use conventional ducts as returns, but this cost has been included in this analysis regardless. Calculating the cost change between panned and conventional ducts is challenging, as panned ducts are not priced in RS Means and many construction cost sources. After consulting with HVAC contractors, who indicated the

² As a result, many builders will be able to reduce or avoid incremental costs for better windows.

³ \$350 is a commonly used as an expected air sealing and testing cost for new single-family detached homes nationwide.

⁴ Ventilation system and costs are described in an August 2005 report from Lawrence Berkeley National Laboratory “Review of Residential Ventilation Technologies.” Although the costs of these components have decreased in recent years, the 2005 estimate (\$180 per new home) is quoted in this analysis.

⁵ It is difficult to determine what combination of redesign, resizing, and/or partial insulation of hot water lines would be done in a typical new home. Insulating distribution lines to the kitchen and very long runs would add costs while downsizing lines would reduce costs; in any case we believe the net effect would be small.

cost of panned ducts was roughly half of conventional ducts, incremental costs are estimated in this analysis as one-half of cost of flexible return ducts. We believe this cost is reasonable due to the significant amount of labor required for panned ducts, as contractors must screw sheet metal between two adjacent joists and seal the edges with mastic. RS Means estimates the installed cost of flexible, non-insulated, 6" diameter flexible ducts at \$4.58 per linear foot.⁶ As such, the cost to upgrade ducts is estimated at \$2.29 per linear foot, or \$139 for the estimated 75 feet of return duct which some builders will have to upgrade under the 2012 IECC.

Interior Basement Insulation

Additionally, many builders will have to upgrade the interior basement insulation. According to local building experts, most builders currently meet the 2009 IECC by installing basement wall fiberglass batt insulation to the inside of basement walls. To meet the 2012 code, these builders will have to upgrade from R-10 to R-15 batts. R-15 Hanging batts are not priced in RS Means and calls to local building suppliers yielded only the cost R-19 hanging insulation, which is priced at an additional \$0.18 per square foot. Although the R-15 insulation should be less expensive than the quoted R-19, the \$0.18 cost per square foot is used in this analysis, which adds \$202 in incremental costs.

Exterior Walls

Finally, some builders may have to make a small upgrade to exterior walls. The 2006 IECC requires new home walls to meet R-19 or R-13+5, while the 2012 IECC requires either R-20 or R-13+5. For builders who already build R13+5 walls, the code does not require a change, and these builders will not incur any additional incremental costs. However, for builders currently meeting the 2006 code with R-19 walls (a 2 x 6 framed wall with R-19 fiberglass batts) they will have to upgrade batt insulation slightly, to an R-20 high density fiberglass batt, a cost which is estimated by RS Means as 15 cents per square foot of wall area. This cost, as well as all other estimated incremental costs are summarized in a **Table 1**, below.

Table 1: Salt Lake City 2012 IECC Incremental Costs

Building Component	Total Area	Incremental Cost/Square Ft	Total	Location Factor	Adjusted Total
Ceiling Insulation Upgrade from R-38 to R-49 (both blown-in)	1,200	\$0.41	\$ 492.00	81%	\$399
1 st Floor Panned Return Ducts Upgraded to Flexible Ducts	75 linear ft	\$2.29/lf	\$ 171.75	81%	\$139
Basement Wall Insulation Upgrade from R-10 to R-15 (R-19)	1,120	\$0.18	\$ 201.60	N/A	\$202
Upgrade Windows from U-.35 to U-.32	357	\$1.00	\$ 357.00	N/A	\$357
Increased Air Sealing and Testing	N/A	N/A	N/A	N/A	\$350
Insulating Hot Water Pipes	N/A	N/A	N/A	N/A	\$100
75% CFLs in hardwired fixtures	N/A	N/A	N/A	N/A	\$ 50
Upgrade to Programmable Thermostats	N/A	N/A	N/A	N/A	\$ 50
Bathroom Vent Fan Upgrade and Addition of Automatic Timer	N/A	N/A	N/A	N/A	\$180
Sealing/Insulating Attic Hatch	N/A	N/A	N/A	N/A	\$100
Upgrade R-19 walls to R-20 with high density fiberglass batts (R-13+5 walls exempted from this cost)	2,380	\$0.15	\$357	81%	\$289
Incremental Cost (R-13+5 Walls) \$1,926 OR					
Incremental Cost (2 x 6 Walls - includes R-19 to R-20 insulation cost)			\$2,215		

⁶ Less expensive duct options are available, but this product matches the modeling assumptions used by ICFI.

ENERGY COST SAVINGS

According to the model used in this analysis, **upgrading to the 2012 IECC will result in significant energy cost savings for Salt Lake City homeowners , resulting in savings of between \$347 and \$361 per year**, depending on the type of exterior wall type builders select. In energy modeling simulations, R13+5 walls perform slightly better than R-20 walls, saving an additional \$14 per year. It is noteworthy that these savings assume constant energy prices; if energy prices continue to rise consistent with historical trends, savings will be greater in future years.

MORTGAGE PAYBACK FOR HOMEOWNERS

Homebuyers will be able to include the incremental first-costs of meeting the 2012 IECC in their mortgage, while benefiting from lower utility bills starting on day one. With estimated energy cost savings of between \$347 and \$361 per year, monthly utility bill savings are more than three times as much as the additional mortgage payment needed to cover the added first-cost of energy saving features required by the 2012 code.

This cash-flow difference is enough to pay back the buyer’s added down payment in approximately 17 to 22 months (or sooner if the loan allows a down payment below 20%). After that date, the owner continues to realize a profit of at least \$245 annually due to lower utility bills – and even more if energy prices increase.

This payback analysis assumes that homebuyers purchase a new home with 20% down at the current nationwide interest rate of 4.03 percent. This scenario would result in an increased down payment of between \$385 to \$443 with an additional mortgage cost of \$7 or \$8 per month. Taking into account energy savings and lower utility bills, a cash flow analysis indicates that the homebuyer would break even within as little as 17 months. After that break-even date, **homeowners would continue to save between \$245 and \$273 annually**, after additional mortgage costs are subtracted from energy savings. Homebuyers with a lower down payment—such as 5 or 10 percent—will realize payback more quickly. Mortgage payback to homeowners is presented below in Table 2, below.

Table 2: Mortgage Payback for Homebuyers by Exterior Wall Type

Exterior Wall Type	Incremental Costs	Energy Savings/ Year and Month per home	Down Payment Increase (and Mortgage Increase per Month)	Breakeven Point	Annual Profit for Homeowner after Breakeven Point
R-13+5 Walls	\$1,926	\$361/year (\$30/month)	\$385 (plus \$7/month)	17 months	\$273
R-20 Walls, Studs 16” on center	\$2,215	\$347/year (\$29/month)	\$443 (plus \$8/month)	22 months	\$245

CONCLUSIONS

- As estimated in this analysis, incremental costs for new 2,400 square foot homes built to the 2012 IECC in Salt Lake City total \$1,926 to \$2,215 per new home.
- Annual energy savings for Salt Lake City homeowners attributable to the 2012 IECC range from \$347 to \$361, depending on which exterior wall type builders select.
- Assuming a conservative 20% down payment, new home buyers will break even on their initial investment in as few as 17 months and no more than 22 months after purchase.

About BCAP

As an independent judge of the efficacy of energy codes, BCAP strives to use data to address energy code barriers, including the real or perceived construction costs incurred by code changes. To address concern in the building community that upgrading to the latest version of the residential energy code, the 2012 IECC, will result in cost prohibitive increases in construction cost for new single-family homes, BCAP has completed a nationwide incremental cost analysis as well as analysis for states on demand. Funding for this work is provided by the Environmental Protection Agency, the Department of Energy, and the National Association of State Energy Officials.

Contact Information:

2012 IECC Adoption and Energy Codes Policy

William D. Fay
Executive Director
Energy Efficient Codes Coalition
(202) 530-2214
bfay@ase.org

Jeffrey Harris
Senior Vice President - Programs
Alliance to Save Energy
(202) 530-2243
jharris@ase.org

Technical Analysis

John Miller
Senior Research Associate
Building Codes Assistance Project
(202) 530-4340 (direct)
jmiller@ase.org

Mike DeWein
Technical Director
Building Codes Assistance Project
(518) 664-1308 (direct)
mdewein@ase.org

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

**TITLE 4
BUILDING REGULATIONS**

CHAPTERS:

- 4-01 ADMINISTRATIVE ENACTMENTS (Page 2)**
- 4-02 INTERNATIONAL RESIDENTIAL CODE (IRC), 2006 EDITION, AMENDMENTS,
ADDITIONS, AND DELETIONS (Page 11)**
- 4-03 INTERNATIONAL BUILDING CODE (IBC), 2006 EDITION, AMENDMENTS,
ADDITIONS, AND DELETIONS (Page 34)**
- 4-04 INTERNATIONAL PLUMBING CODE (IPC), 2006 EDITION, AMENDMENTS,
ADDITIONS, AND DELETIONS (Page 43)**
- 4-05 NATIONAL ELECTRICAL CODE (NEC), 2011 EDITION, AMENDMENTS,
ADDITIONS, AND DELETIONS (Page 46)**
- 4-06 INTERNATIONAL MECHANICAL CODE (IMC), 2006 EDITION, AMENDMENTS,
ADDITIONS, AND DELETIONS (Page 48)**
- 4-07 INTERNATIONAL FUEL GAS CODE (IFGC), 2006 EDITION, AMENDMENTS,
ADDITIONS, AND DELETIONS (Page 50)**
- 4-08 INTERNATIONAL EXISTING BUILDING CODE (IEBC), 2006 EDITION,
AMENDMENTS, ADDITIONS, AND DELETIONS (Page 52)**
- 4-09 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2006 EDITION,
AMENDMENTS, ADDITIONS, AND DELETIONS (Page 53)**

**2014~~3~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

**CHAPTER 4-01
ADMINISTRATIVE ENACTMENTS**

The following applies to Chapters 4-01 through 4-09

SECTIONS:

4-01-001-0001 DEFINITIONS

4-01-001-0002 ADOPTION OF ~~2006~~12 INTERNATIONAL BUILDING, RESIDENTIAL, AND PLUMBING CODES, WITH AMENDMENTS, ADDITIONS, AND DELETIONS THERETO; 2011 NATIONAL ELECTRICAL CODE, WITH AMENDMENTS, ADDITIONS, AND DELETIONS THERETO; ~~2006~~12 INTERNATIONAL MECHANICAL CODE, WITH AMENDMENTS, ADDITIONS, AND DELETIONS THERETO; ~~2006~~12 INTERNATIONAL FUEL GAS CODE WITH AMENDMENTS, ADDITIONS, AND DELETIONS THERETO; 2012 INTERNATIONAL EXISTING BUILDING CODE WITH AMENDMENTS, ADDITIONS, AND DELETIONS THERETO; ICC A117.1-2009 Accessible And Usable Building And Facilities; 1997 UNIFORM HOUSING CODE WITH AMENDMENTS, ADDITIONS, AND DELETIONS THERETO; 1997 UNIFORM ADMINISTRATIVE CODE, WITH AMENDMENTS, ADDITIONS, AND DELETIONS THERETO; AND 1997 UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS, WITH AMENDMENTS, ADDITIONS, AND DELETIONS THERETO.

4-01-001-0003 SAVING CLAUSE

4-01-001-0004 VIOLATION AND PENALTIES

4-01-001-0005 AMENDMENTS, ADDITIONS AND DELETIONS

4-01-001-0001 Definitions

As used in this City of Flagstaff 2014~~3~~ Building Code Amendments and all of the referenced herein adopted International Codes, the following terms shall have the meaning herein prescribed:

- A. Wherever the word "Municipality" or "[Name of Jurisdiction]" is used, it shall be mean the City of Flagstaff.
- B. Wherever the term "Department of Building Safety" is used, it shall mean "Development Services Division."
- C. Wherever the term "Corporation Counsel" is used in this Chapter, it shall mean the Attorney for the City of Flagstaff (Ordinance 587:8-14-62).
- D. Wherever the term "Administrative Authority" is used in conjunction with publicly provided utilities (natural gas, electricity, internet and broad band service, telephone, and cable television), it shall mean the current contract company providing the respective service. Wherever the term "Administrative Authority" is used in conjunction with publicly provided utilities or permits (water, sewer, storm water management and/or building permits), it shall mean the City of Flagstaff.

4-01-001-0002 Adoption of ~~2006~~12 International Building, Residential, and Plumbing Codes, with amendments, additions, and deletions

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

**thereto; 2011 National Electrical Code, with amendments,
additions, and deletions thereto;**

There are hereby adopted by the City Council of the City of Flagstaff for the purposes of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, alteration, removal, maintenance of buildings and structures, including permits and penalties, those certain International Codes known and referred to with particularity as the International Building Code (IBC), 20~~06~~12 Edition, providing for amendments, additions and deletions thereto and International Residential Code (IRC), 20~~06~~12 Edition, providing for amendments, additions and deletions thereto; International Plumbing Code (IPC), 20~~06~~12 Edition, providing for amendments, additions and deletions thereto, the 2011 National Electrical Code, providing for amendments, additions and deletions thereto; International Mechanical Code, 20~~06~~12 Edition, providing for amendments, additions and deletions thereto; International Fuel Gas Code, 20~~06~~12 Edition, providing for amendments, additions and deletions thereto; International Existing Building Code, 20~~06~~12 Edition, providing for amendments, additions and deletions thereto; ICC A117.1-2009, Accessible And Usable Building And Facilities; Uniform Housing Code, 1997 Edition, Uniform Administrative Code, 1997 Edition, and Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, three (3) copies of which are on file in the office of the City Clerk of the City of Flagstaff, and the same made part hereof by this reference as if fully and completely herein set forth. The provisions of the aforesated Codes, 20~~06~~12 editions, shall be controlling for construction within the corporate limits of the City of Flagstaff.

4-01-001-0003 SAVING CLAUSE

Nothing in this Chapter or in the International Building Codes hereby adopted shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinances replaced hereby. Nor shall any right or remedy of any character be lost, impaired, or affected by this Chapter.

4-01-001-0004 VIOLATION AND PENALTIES

- A. Violations. It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any building or permit the same to be done in violation of this Code.
- B. Penalties. Any person, firm, or corporation violating any provision of this Code shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine and/or imprisonment set forth by the governing laws of the jurisdiction. Each separate day or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

4-01-001-0005 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the International Codes 20~~06~~12 Editions and the National Electrical Code , 2011 Edition.

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(Amended, Ord. 2009-06, 07/18/2009; Amended Ord. No. 2011-12, (July 19, 2011))

CHAPTER 1, ADMINISTRATION

Amend Section R103.1 IRC and 103.1 IBC to read:

The Development Services Section, Building Safety Program, is appointed as the regulating office and the Building Official is known as the code official.

(Amended Ord. No. 2011-12, (July 19, 2011))

Revise the amendments to Sections R104.7, 104.7, and 104.8 by striking the third paragraph:

The Building Official shall keep comprehensive records of applications or permits issued, or certificates issued or inspections made, or reports rendered and of notices of orders issued.

All such records shall be open to public inspection for good and sufficient reasons at the stated office hours but shall not be removed from the office of the Building Official without his written consent. All records are kept in both hard copy and electronic format. The electronic format information may be requested on a "walk-in" basis and reviewed during normal working hours; copies or inspection of original documentation requires written notice and reasonable amount of time for Staff to collect the required records from an off-site warehouse location. Written requests will go through the City Clerk's office for processing. (Amended Ord. No. 2011-12, (July 19, 2011))

Amend Table R301.2 (1) "Climatic and Geographic Design Criteria" as follows:

This information may be used by Design Professionals in lieu of the tables provided in Chapter 16 of the International Building Code (IBC), 2006 Edition.

Roof Snow Load:(Measured on the roof)	40 pounds per square foot
Ground Snow Load (where accounting has been given for factored snow loads as given in ASCE 7, Chapter 7. No reduction for slopes less than 45 degrees without providing engineering and/or approval by the Building Official)	50 pounds per square foot
Wind Speed:	90 miles per hour
Wind Exposure Category:	"B"
Seismic Design Category:	"C"
Weathering:	Severe
Frost line depth:	30 inches
Termite:	Moderate to Heavy
Decay:	Moderate
Rain fall - 100 year	2.5 inches per hour
Winter Design Temperature:	4 degrees (F)
Ice Shield Under-layment Req'd:	Yes

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Flood Hazards:	1-19-83; 9-18-90*
Air Freezing Index:	1014
Mean Annual Temperature:	45.4 degrees (F)
Climate Zone (IECC, Table 301.1):	Zone 5

* The flood hazard dates reflect the current National Flood Insurance Program and the date of the currently effective "Firm" Map (used by the City of Flagstaff). These maps are updated by the issuing agency and adopted by Storm Water Management without notice.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Sections R105.2 and 105.2, Work Exempt from Permits, by adding:

Garden walls, fences less than 6 feet in height, decks/patios less than 30" above finished grade and all accessory shed structures under 200 square feet will require a zoning Minor Improvement permit as approved under COF Ordinance 2006-12

(Amended Ord. No. 2011-12, (July 19, 2011))

Delete Sections R105.5 IRC and 105.5 IBC, Expiration, and replace with:

Every residential permit issued shall become invalid unless the work authorized by such permit is completed within one year (365 days) from the issuance date of the building permit. The Building Official is authorized to grant, when request for extension is received in writing, one extension not to exceed 180 days. The extension shall demonstrate cause such as financial, weather delays, material delivery, etc. The permit may be extended for an additional year (365 days) by paying one half the original permit fee (not including the plan check fee), thereby allowing a maximum time of completing the project to 30 months. Failure to obtain a certificate of occupancy within 30 months shall result in a report being recorded with the Coconino County Recorder's office for incomplete work or no final inspection report of the project. All residential "over-the-counter" permits for plumbing, mechanical, electrical and re-roofing shall be valid for a maximum period of 180 days.

All commercial construction permits for new, remodels, additions, and alterations shall be valid for a maximum period of 720 days. One extension shall be granted for an additional 360 days when requested in writing and justifiable cause is demonstrated. After the one time extension has expired, the next additional extension will require the applicant to pay one-half the permit fee for an additional 360 day extension. Permits not passing final inspection over 1440 days will be expired and the applicant must submit for a new permit and pay all associated fees. All commercial "over-the-counter" permits for plumbing, mechanical, electrical and re-roofing shall be valid for a maximum period of 180 days.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section 105.2, Electrical, by adding:

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Approved portable equipment used in conjunction with special events in public locations (parks, parking lots, public owned land, et cetera) of 25 kw or greater will have an over-the-counter electrical permit issued and a licensed electrical contractor for installation or set up.

The issuance of an electrical permit shall not be construed as an approval by the electrical inspector of any diagrams, drawings, specifications, or details of such contemplated work insofar as the same or any portion thereof is in conflict with this Chapter or any other rules or regulations governing electric installations in the City of Flagstaff. The holder of an electrical permit shall not do or perform any work other than that designated in the application for said permit without first notifying the electrical inspector and paying the additional fee therefore. No work shall be permitted at any location other than that designated by the permit. The electrical inspector must be given immediate notice when an installation is ready for either rough or final inspection.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section 105 IBC by adding Section 105.8, Temporary Permit:

Section 105.8. Temporary Permit. Permits may be issued by the Building Official for the use of certain classes of temporary open wiring such as for carnivals, fairs, demonstrations, evangelistic meetings, town parties, auction sales, and others. Such permits shall be granted for a period of two (2) weeks only, with a possible extension of one (1) week if the circumstances are justified in writing to the Building Official. No such temporary permits shall be granted in succession at the same location, and under no circumstances shall any person connect or put into service any temporary wiring until a permit has been obtained.

Temporary permits shall also be granted for the use of temporary wiring for lights and power on buildings under construction. Such permits are void automatically upon cessation of active construction or when, in the judgment of the Building Official, such wiring becomes hazardous. Provisions of Article 525 of the National Electrical Code (NEC), 2011 Edition shall be followed with respect to temporary wiring.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section R106.1.1, Information on Construction Documents, by deleting the first sentence and replace with:

Construction documents shall be drawn upon suitable material, drafting paper, vellum, etc. and shall be a maximum size of 24" x 36", size D paper. The minimum size of drawings that have the minimum required drawings (site plan, foundation plan, floor plans for each floor, elevations, framing plans, roof & floor manufactured layout plans, critical sections, and details will be 18" x 24"). Floor framing, foundation, roof framing and floor plans must be drafted to the same scale, i.e., ¼"=1'-0". The minimum size for amended cut-sheets or details will be 8-1/2" x 11" and will not exceed the maximum sheet size.

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Larger sized drawings must be approved by the Building Official and justification established for why drawings can't be presented on the smaller size sheets. [It is expected that larger commercial projects will fall into this exception]. The written scope or description of the work may be provided on the building permit application form as long as it describes accurately the work to be performed.

All structural elements (i.e., posts and beams) shall be on the related plan sheet(s) which corresponds to the work being proposed.

Embedded anchors shall be on the foundation plan. Post bases/caps shall be on the framing plan or shown on specific details for the assembly.

Each floor shall have its own framing plan. First floor framing will not be superimposed on second floor framing or roof framing plans as an example.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section 106.1 IBC, Submittal Documents, by adding:

Residential, single family detached, structures are exempt from the requirements for a Design Professional under Arizona Revised Statutes (ARS 32-121 et. seq.) unless circumstances dictate the need for professional design submittal. Duplexes and triplex units which do not exceed 3,000 square feet, two stories or a total occupant load of 20, may also be designed by a non-registrant as long as the unit(s) has/have only one owner.

Sub-assemblies, such as roof trusses or manufactured floor beams that indicate all imposed loading may be submitted without the "stamp" of an Arizona certified or registered Design Professional.

Any retaining walls having any imposed surcharges from adjacent structural elements or unbalanced loading that exceed four (4) feet (1224 mm), shall be designed by an Arizona certified or registered Design Professional and shall be submitted at the time of permit application.

Pursuant to Arizona Revised Statutes § 32-121 et.seq. governing the regulation of Design Professionals (i.e. architects and engineers), all commercial occupancies for new construction, additions, alterations or repairs within the City of Flagstaff shall be prepared by an Arizona certified or registered Design Professional in good standing when:

1. The total square footage of any building exceeds 3,000 square feet, or
2. The total occupancy of the building exceeds 20 people, or
3. Any structural member required for the project exceeds twenty feet (20') in length.

The certified or registered Design Professional of Record must provide his/her "stamp" upon all working drawings. Drawings not prepared by the Design Professional of Record may be annotated as such, but the "stamp" shall be affixed to all the drawings in the construction working

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drawings set to indicate that coordination of the total project has been done by the Design Professional of Record.

A design professional is required for electrical service entrance sections of 600 amps and greater.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Sections 108.4 and R108.4 by adding:

Any person who commences any work on a building, structure, electrical, gas, mechanical, or plumbing system before obtaining the necessary permits shall be subject to an investigation fee of \$94.00 or twice the permit fee, whichever is greater.

Any person who commences any work on a building, structure, electrical, gas, mechanical, or plumbing system before obtaining the necessary permits shall be subject to an investigation fee of \$94.00 or twice the permit fee, whichever is greater.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Sections R108.5 IRC and 108.5 IBC, Related Fees, by adding:

The fee schedule shall be based upon the 1997 Uniform Administrative Code, Table 3D, and shall be annually reviewed and the revised fees published by the Building Safety Program, Development Services Section. Valuation fees for commercial work shall be annually reviewed in accordance with the International Code Council Building Safety Journal Fee structure. Residential fee valuation shall be subject to approval for increases by the City of Flagstaff Council based upon the recommendation of the Building Official and shall be published for public review.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Sections R108.6 IRC and 108.6 IBC, Refunds, by adding:

The applicant may receive up to 80% refund for the total building permit fee if no work has begun and no inspections have been performed. No refund of the plan review fee is authorized after the permit has been issued. The refund of a plan review fee is also limited to 80%, assuming that no review has been performed. The Building Official shall determine, based upon work done, how much of fees paid are actually refunded. There shall be no refund of any required deposit once the administrative routing and plan review process has begun.

(Amended Ord. No. 2011-12, (July 19, 2011))

Add Sections R108.7 IRC and 108.7 IBC, Re-Inspection Fee(s) as follows:

Re-inspection fees may be assessed for each inspection or re-inspection when the portion of work for which the inspection was scheduled is not complete or when corrections from a previous inspection are not made. Other events which may require the imposition of a re-inspection fee

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are: failure to have the inspection record on the job site when the inspector arrives; the approved plans not on the job site for the inspector to review; and failure to provide access to the job site or area to be reviewed by the inspector. Appeals for such fees are made to the Building and Safety Manager. To obtain a re-inspection after the inspector has left notice that a fee must be assessed; the applicant must pay a \$94.00 fee.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Sections R110.4 IRC and 110.3 IBC, Temporary Occupancy, by adding.

Temporary Certificate of Occupancies for residential construction (detached single family dwellings and duplexes) is not authorized.

Exceptions: (1) When a driveway approach cannot be poured due to weather, then the Building Official can approve a temporary Certificate of Occupancy after the applicant has posted a bond with the City of Flagstaff; (2) If the structure meets all the requirements for habitable space and sanitation, then a Certificate of Occupancy will be granted. Any unfinished items (i.e. extra bonus rooms, basement finishing, etc.,) will be annotated in the inspection record as "not inspected" at the time of Certificate of Occupancy issuance. Applicants moving into a dwelling prior to receiving a Certificate of Occupancy may be evicted as the property is posted "NO OCCUPANCY" by the building inspector or Building Official.

Construction Hours:

Refer to Ordinance 2004-21 of the City Code, Chapter 6-08, Noise Control, Section 6-08-001-0002 for time frames on noise restrictions.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section R112 of the IRC and Section 112 of the IBC, Board of Appeals, by deleting the Sections in their entirety and replacing with:

Board of Appeals, Refer to Ordinance 2011-31 for establishment and requirements of the Board of Appeals.

CHAPTERS 2 OF IRC AND IBC, DEFINITIONS

Amend IBC Section 202 by adding the following definitions:

ACCESSORY DWELLING UNITS. An Accessory Dwelling Unit (ADU) may be either attached or detached and is secondary to the primary residence. The full definitions and application of constructing an ADU is covered under COF Ordinance 2007-20, adopted on 20 March 2007. The ADU is limited in size to be not less than 300 square feet and not greater than 500 square feet in size on lots less than one acre. For lots one acre and larger, the size is limited to 800 square feet maximum. The ADU shall provide complete independent living facilities for one or more

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persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

ACCESSORY ENERGY SYSTEMS. An accessory energy system will include wind turbines, PV solar, thermal solar, geo-thermal, bio-mass and other technologies that provide heating, cooling or electrical energy. The systems will be subject to a building permit and limited by zoning ordinances for visual, design, height and setback requirements.

CITY shall mean the City of Flagstaff.

CONDOMINIUMS. Condominiums are defined in the International Building Code, 2006 Edition as an R-2 occupancy and will not be reviewed using the 2006 IRC. Condominiums are a collection of individually owned parcels or individual units within a common structure, combined with a joint ownership of commonly used property (sidewalks, hallways, stairs, etc.). The condominium is defined as the ownership of air-space with no ground attached.

INSPECTION is an examination by which a qualified person conducts an investigation of a completed trade, such as framing, electrical, plumbing or mechanical to assure compliance with adopted minimum codes, or to investigate sub-standard housing as defined in the Uniform Housing code, or investigate dangerous conditions as defined per the Uniform Code for the Abatement of Dangerous Buildings.

LADDER BACKING shall mean or refer to wood construction used at perpendicular or angular intersections of non-load bearing walls between stud bays.

STOCKPILING shall mean the same as fill, except that it is assumed to be loose un-compacted material that is placed on a site for a temporary period of time. Stockpiling shall require a grading permit when it exceeds 50 cubic yards and shall not remain on the site for more than six (6) months without written permission from the Building Official or the City Engineer.

TEMPORARY shall mean a period not to exceed six (6) months.

TOWNHOUSES. Attached dwelling units with a legally described property line between units (two or more units; shall be reviewed using the International Residential Code, 2006 Edition, unless approved by the Building Official to be reviewed using the International Building Code, 2006 Edition. Developers must maintain a five (5) foot clearance on townhouse end units between the property line and the face of the structure to allow for openings in the side walls of the individual units. Exceptions would be a recording of a "five (5) foot no-build easement on the Final Plat" or the unit is adjacent to a public right-of-way.

USABLE SPACE. Any space which can be either occupied, used for storage of materials and/or service area which houses mechanical equipment. The space may or may not have environmental conditioning. The usable space will include access corridors, utility closets, mezzanines, basements,

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crawl space storage, attic areas rated for either storage or floor loading, vestibules, and/or storage spaces.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

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CHAPTER 4-02

INTERNATIONAL RESIDENTIAL CODE

Sections:

4-02-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

4-02-001-0001 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the International Residential Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption.

CHAPTER 3, IRC, BUILDING PLANNING

Revise the amendment to Section R325, Manufactured Housing Design Requirements, as follows:

All new manufactured housing (housing classified as modular, factory built or manufactured house) installed within the City of Flagstaff will be designed to meet HUD minimum standards. The City of Flagstaff enforces a 40 pounds per square foot roof snow load for site built construction. HUD standards for snow winter areas in Arizona is not consistent with local conditions and owners should be aware of the differences.

For "used" manufactured housing or "resale"/relocated manufactured housing being brought into the City of Flagstaff, the following applies. As per direction from the State of Arizona, Office of Manufactured Housing, A.R.S. Title 41, specifically requires that all manufactured housing units be certified to meet the minimum standards of the United States Department of Housing and Urban Development and are to be designed in accordance with consistent State of Arizona Standards for manufactured homes and related industries. An applicant requesting an installation permit and inspection will be required to provide proof to the Building Official of the current State certification or re-certification of the unit.

Amend Section R309.5 Fire Sprinklers by deleting entire section.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

CHAPTER 4, IRC, FOUNDATIONS

Revise the amendment to Section Amend R401.4.1 as follows:

All new residential subdivisions require a geotechnical soils report be prepared with foundation recommendations. In established areas of the City of Flagstaff, "in-fill" or vacant lots in subdivisions established prior to 1996, the designer may use 1500 pounds per square foot. Where the Building

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Official determines that in-place soils with an allowable bearing capacity of less than 1500 pounds per square foot (psf) are likely to be present at the site, then allowable bearing capacity shall be determined by a geotechnical investigation at the expense of the permit applicant.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

Amend R403.1 by adding:

All footings located less than 18 inches (457 mm) below existing grade to be air entrained, 3,500 psi concrete (severe weather), and pinned to rock at intervals specified for foundation wall vertical reinforcements or as specified by the Arizona design professional.

Revise the amendment to R403.1.1 by deleting the following language:

Spread footings shall be at least 8 inches (204 mm) in thickness. Footing projections, *P*, shall be at least 4 inches (102 mm) and shall not exceed the thickness of the footing.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

Amend R403.1.2 and R403.1.3 by adding:

Add Seismic "C" category to both sections at all seismic D1 and D2 locations.

Amend R403.1.3 by deleting the exception.

Amend Table R403.1 by changing:

All references to 1,500 and 2,000 psf Load Bearing columns shall be changed from 12 inch (305 mm) and 15 inch (383 mm) minimum width of concrete or masonry footings to 16 inch (408 mm) minimum width for one and two story convention light-frame construction and one story under 4-inch brick veneer and 8-inch solid or fully grouted masonry structures.

Delete R403.1.3.1 in its entirety and add the following language to the replacement amendment:

Foundations with stem-walls shall be provided with a minimum of one No. 4 bar at the top of the wall and two No. 4 bar at the bottom of the footings equally spaced.

Exception: Footing designs without reinforcing steel must be "sealed" by a certified or registered Design Professional.

Delete Section R403.3 in its entirety.

Amend R404.1.1; R404.1.2; R404.1.4, R404.1.8 by adding:

Add Seismic Design Category "C" to all references of D1 and D2.

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Amend R404.1.4, Number 1 by deleting "in the upper 12 inches of the wall" and adding:

1. Minimum reinforcement shall consist of one No. 4 horizontal rebar located at top of wall not more than 5 inches (128 mm) below the finished concrete and at the top course of concrete masonry unit walls within close proximity to the anchor bolts.

Amend R404.1.4, second paragraph by changing:

Change the vertical reinforcement bar reference from #3 rebar to #4 rebar.

Amend R407.3 Exception by deleting:

Delete Seismic Design Category "C" from this exception.

CHAPTER 6, IRC, WALL CONSTRUCTION

Amend R602.5 by adding:

Ladder backing shall be spaced a maximum 8 inches (204 mm) on center.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

CHAPTER 9, IRC, ROOF ASSEMBLIES

Revise the amendment to Section R904.2 as follows:

All roofing materials used must be a class "A" or "B" and rolled roofing is to be a Class A or B material and shall be a self-adhering, polymer modified bitumen material.

(Amended Ord. No. 2011-12, (July 19, 2011))

Delete Sections R905.7 and R905.8 in their entirety.

CHAPTER 11, IRC, ENERGY EFFICIENCY

Amend Section 1102.1 by adding:

Section N1102.1.1. Insulation values in 2x6 wall construction will remain the same at R-19. Insulation values in 2x4 wall construction will remain at R-15 (high density). Construction using Structural Insulated Panels (SIPS) and/or straw bail in-fill methods will be a minimum of R-21 (industry standards often show results of R-30 to R-45 depending upon materials and thickness of the wall).

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section N1102.1.2 by adding:

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Section N1102.1.2.1. All new construction and replacement windows to have National Fenestration Rating Council (NFRC) total unit U-factor of 0.45 or less. Windows shall also be low-E where practical (not recommended for southern exposures) or not being used for solar heat gain to fuel a solar massing device.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section N1103 by adding:

Section N1103.7 Furnaces: All furnaces installed in new construction shall be 90% condensing type furnaces.

Exception: Replacement furnaces are to be voluntary 90% condensing type furnaces.

(Amended Ord. No. 2011-12, (July 19, 2011))

~~Amend Chapter 11 by adding the following sections:~~

~~Section N1104.1. Water heaters must be insulated using exterior "jackets" or for "Energy Star" or energy conservation rated appliances. The insulation information must be available on the appliance installed at the time of final inspection. A minimum total insulation value of R-16 must be achieved. This applies to new installation or replacements.~~

~~Exception: The R-16 is not required for the water heater when the existing room size prohibits the larger sized water heater and when the manufacturer's listing prohibits the use of insulation jackets.~~

~~Section N1104.2. A carbon monoxide (CO) detector will be installed at the house/garage entry door and/or within each utility room where combustion appliances are used (sealed combustion appliances are exempt). A laundry room which uses gas appliances would require a detector.~~

~~Section N1104.3. All hot water supply lines (both ½" and ¾") will be insulated with a minimum of R3.6 wrap insulation or ½" foam covers. All joints between sections of insulation will be snugly butted together and wrapped with duct tape.~~

~~Section N1104.4. All new construction and replacement heating units (optional for hydronic in-floor heating systems) will have programmable thermostats.~~

~~Section N1104.5. All newly installed toilets must be "high efficiency toilets (HET)" units which have a maximum of 1.3 gallons for solids. (Special attention to this change needs to be addressed by suppliers and home improvement centers which stock the older style units).~~

~~Section N1104.6. A construction waste reduction/reuse plan will be written and provided at the time of building permit submittal for new construction of all new commercial projects (apartments and condominiums), townhouse subdivisions and or single family detached builders who submit for more than 15 permits within a subdivision during any one calendar year. The~~

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~~plan must address construction waste to include cardboard, drywall, foam, metal, concrete, masonry and asphalt.~~

~~Section N1104.7. All appliances, refrigerators, freezers, washers, dryers, cook stoves, that are supplied by the contractor shall be Energy Star rated.~~

(Amended Ord. No. 2011-12, (July 19, 2011))

~~Amend Chapter 11 as follows~~

~~Section N1105, Voluntary Best Practices~~

~~Section N1105.1: Future Solar Water Heater. All new residential construction shall be built so as to accommodate a future installation of a solar water tank. Ceilings within the water heater compartment shall be a minimum 8 foot in height. Either insulated plumbing for standard interconnect to a roof mounted system will be pre-plumbed or adequately sized chase/access panel provided between the water heater compartment and the attic space will be installed.~~

~~Exception: Single story single family dwellings.~~

~~Section N1105.2: Future Solar Photovoltaic. All new residential construction shall be supplied with a minimum ¾ inch electrical conduit, with a pull wire, for the future installation of a solar photovoltaic system. The conduit shall be run from the inside of an accessible attic crawl space to the electrical service entrance section.~~

~~Section N1105.3: Future Alternative Energy Systems. (Wind Turbines or geothermal): Working drawings prepared by the owner builder, contractor, draftsman or design professional should indicate possible location of expansion to accept alternative energy systems. This can be demonstrated by indicating location of future accessory service panels for electrical systems or expansion capability of mechanical rooms for boilers and control systems.~~

~~Section N1105.4: Voluntary Sustainability Programs. This allows the voluntary use of LEED, Coconino county sustainable checklist, National Green Building Standard, NAHB 2008, ICC 700 2008. This allows the builder or property owner to participate in sustainable programs that are not listed in the International Energy Conservation Code, 2009 edition.~~

~~Section N1105.5: Jump Ducts. Provide an air balancing device between adjoining rooms to allow equalization of air pressure and temperatures between rooms.~~

~~Section N1105.6: Exterior Wall Insulation. Contractor to increase R-19 to R-24 insulation using high density or spray applied foam insulation in exterior framed walls.~~

~~Section N1105.7: Protection of cold water supply lines. Add R-19 insulation to water supply lines that are exposed in crawl spaces.~~

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~~Section N1105.6: At the time of final inspection, the builder, contractor, or owner may install compact fluorescent lights (CFLs), other fluorescent, LEDs or other energy efficient lighting equivalent to or better than fluorescents in the high use areas for new construction. High use areas are typically defined as kitchens, living room, family room, and dining area. Specialty type lighting fixtures shall be of a low wattage or low voltage type.~~

~~Exception: Specialty lighting (chandeliers and under counter halogen lights) may be used in living rooms, dining rooms and kitchens. Recessed spot lights will use CFL's or LED's and reostats must be rated for their use.~~

~~Section N1105.7 Wood floors in new construction may have an insulation value of R-30.~~

~~Section N1105.8 Insulation in contact with the ground may be extruded polystyrene or other foam products other than expanded polystyrene.~~

~~Section N1105.9 Hot water re-circulating pumps are to have a programmable timer, an on/off switch, and ¾ inch foam pipe insulation.~~

Section N1105.10 Dual Plumbing. All new residential single family detached units are "voluntarily" requested to install the piping only for dual plumbed for "gray water" disposal and conservation efforts. Access for future valving must be provided. The initial installation will be connected to sanitary sewer. The piping shall be installed in accordance Appendix C, Gray Water Recycling Systems, of the International Plumbing Code, 2009 Edition, and the regulations established by ADEQ. Reference Type 1 General Permit Best Management Practices for the 13 points of using gray water, at www.adeq.state.az.us or call at 1-800-234-5677.)

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

CHAPTER 13 IRC, GENERAL MECHANICAL

Revise the amendments to Section M1305.1.4.3 by adding the following language:

"Furnaces are to be hard-wired (no cord & cap unless specifically supplied by the manufacturer) with a 20 ampere motor rated disconnect within sight of the furnace."

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

Revise the amendment to Section M1307.3.1 to read:

See G2408.3 for appliance protection.

Amend Section 1507.1 by deleting "or whole-house mechanical ventilation," from the first sentence.

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Amend Section 1507.3 Whole-house mechanical ventilation system by deleting in its entirety.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

CHAPTER 24, IRC, FUEL GAS

Amend Section G2406.2 by deleting numbers 3 and 4.

Change the amendment to Section G2408.3 to read as follows:

Appliances shall not be located in a location where subject to mechanical damage unless protected by approved barriers such as steel bollards filled with concrete, poured in place concrete curb, or installed wheel stops, or on a platform with a minimum clearance of 24 inches (460 mm) above the floor. Appliances not subject to mechanical damage shall be installed per Section 305.3. The exception is deleted in its entirety.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

Change the amendments to Sections G2417.4.1 and G2417.4.2 by making the following revisions:

The test pressure shall be 10 psi (or half the maximum of the gauge) for a period of 15 minutes. Gauges shall be of 1/10 pound increments or less and shall have a pressure range no greater than twice the test pressure.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

In Section G2439.4 (614.5), Makeup Air, change the amendment to read as follows:

Installations exhausting more than 200 cfm (0.09 m³/s) shall be provided with makeup air. (Amended Ord. No. 2011-12, (July 19, 2011))

CHAPTER 26, IRC, GENERAL PLUMBING REQUIREMENTS

Revise the amendment to Section P2603.6.1 to read as follows:

Building sewers that connect to private sewage disposal systems must be approved by the Coconino County Environmental Health Department Building sewers for single family detached buildings shall be a minimum of 12 inches (306 mm) below grade.

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

CHAPTER 29, IRC, WATER SUPPLY AND DISTRIBUTION

Amend Section P2303.5.1, by deleting the words "other than plastic," in the

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[first sentence.](#)

[Amend Section P2904, Dwelling Unit Fire Sprinkler Systems by deleting section in its entirety](#)

CHAPTER 31, IRC, VENTS

Revise the amendment to Section P3101.1, Roof Extension, to read as follows:

Add "12 inches (306 mm) above the roof."

(Amended, Ord. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, (July 19, 2011))

INTERNATIONAL RESIDENTIAL CODES (IRC), 2006 EDITION, PART X - APPENDICES

Revise the amendments to Part X - Appendices as follows:

APPENDIX F - Radon Control Methods

APPENDIX G - Swimming Pools, Spas and Hot Tubs

APPENDIX H - Patio Covers

APPENDIX J - Existing Buildings and Structures.

APPENDIX M - Home Day Care, R-3 Occupancy (a home occupation permit is required prior to receiving any building permits for conversions or improvements).

APPENDIX O - Gray Water Recycling Systems (cross reference to Chapter 11 and timing for implementation. Applicant must also meet the requirements of ADEQ if systems are larger than what the State of Arizona allows).

APPENDIX R - Straw Bale construction guide for residential use.

Section AR101 TITLE, SCOPE and PURPOSE

AR101.1 Title. These provisions shall be known as the City of Flagstaff Straw Bale Construction Code.

AR101.2 Scope. This appendix shall govern the use of baled straw as a building material, and shall apply to Group R occupancies, Group U occupancies and other occupancies when secondary and appurtenant to Group R or Group U occupancies. Unless stated otherwise in this appendix, all other provisions in this code shall apply to structures using baled straw as a building material.

AR101.3 Purpose. The purpose of this appendix is to provide minimum requirements specific to an alternative building materials, reference Section R104.11 and associated testing in Section R104.11.1 Tests, with

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regards to using straw bale as a building material. With the provisions of this appendix, straw bales may be used as a structural or non-structural material. Structural uses include elements designed to support gravity loads, and elements design to resist in-plane wind and seismic loads. Non-structural uses include, but are not limited to, infill walls, insulation, landscape walls and benches.

AR101.3.1 Current test studies done Bou-Ali, Ghailene (1993), University of Arizona, Tucson; Ruppert, Grandsaet (1999), University of Colorado, Boulder; show that structurally bearing elements of straw bale are limited to between 300 - 800 pounds per linear foot depending upon the wall plaster used. The CBC also limits the walls to 20 PSF snow live loads.

AR101.3.2. For Flagstaff, with a 40 PSF snow load, the bearing capacity shall be limited to 150 - 400 pounds per linear foot. No floor loading will be allowed on straw bale walls without structural engineering.

AR101.3.3. Trusses roof spans are limited to fifteen (15) feet in width and top plates and anchoring for uplift must be provided. All other spans or sections of a house which would be two story or more must us a structural "space" frame or post and beam method. In these designs, the straw bale is being used as infill for insulation value.

Section AR102 DEFINITIONS

AR102.1 General. The following words and terms shall, for the purposes of this appendix, have the meanings shown here. Refer to Chapter 2 for general definitions used elsewhere in the International Residential Code.

Bale. Equivalent to "straw bale" for the purposes of this appendix.

Bending. A moment (force) acting on a body will induce bending stress.

Bond. The measure of adhesion; i.e., the bond of concrete or stabilized earth to reinforcing bars and anchor bolts.

Bond Beam. A structural element within a wall (usually at the top) intended to stabilize the wall and facilitate the transfer of loads from above.

Buckling. The collapse of a wall or column by bending and breaking under a vertical load.

Flake. A slab or straw removed from an untied bale. In particular, an intact slab (3-5" thick) as created by the baling machine.

Laid flat. Stacking bales so the sides and the largest area are horizontal and the longest dimension of this area is parallel with the wall plane.

Laid On-Edge. Stacking bales so the sides with the largest area are vertical and the longest dimension of this area is horizontal and parallel with the wall plane.

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Mesh. An openwork fabric of linked strands of metal, plastic or natural fiber, embedded in plaster to provide tensile reinforcement and/or bonding. (also sometimes lath).

Moisture Barrier. A continuous barrier capable of stopping the passage of water.

Non-Load-bearing. (See Non-Structural.)

Non-Structural. A straw bale wall or other element which supports only its own weight, and may resist out-of-plane lateral loads.

Pins. Metal rod, wooden dowel or bamboo driven into or secured on the surface of stacked bales for purposes of connection or stability.

Plaster. Gypsum, lime, lime-Cement, or cement plasters, as defined by the code and Section AR106 of this appendix, or clay plaster and earth-cement plaster as defined in Section AR106.9 and AR106.10.

Running Bond. The placement of straw bales such that the head joints in successive courses are offset at least one quarter of the bale length below.

Skin. The compilation of plaster and reinforcing, if any, on the surface of stacked bales.

Structural. A straw bale wall or other element which support gravity loads (dead and live) and/or resists in-plane lateral loads.

Stack Bond. The placement of straw bales such that head joints in successive courses are vertically aligned (similar to the "soldier" courses in masonry construction).

Straw. The dry stems of cereal grains left after the seed heads have been substantially removed.

Straw Bale. A rectangular compressed block of straw, bound by polypropylene strings or baling wire.

Straw-bale. The adjective form of straw bale.

Straw-clay. A mix of loose straw and clay binder.

Three-String Bale. A straw bale bound by three strings or wires. Typically with approximate dimensions of 15"x23"x42" to 48" long.

Truth Window. An area of a straw-bale wall left without its finish, to allow view of the straw otherwise concealed by its finish.

Two-String Bale. A Straw bale found by two strings or wires. Typically wit approximate dimensions of 16" or 14" x 18" x 36" to 45" long.

Vapor-Permeable Membrane. A material or covering having a permeance rating of five (5) perms or grater, when testing in accordance with the

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desiccant method using Procedure A of ASTM E96. A vapor-permeable material permits the passage of moisture. (This definition is shown for convenience and is identical to that shown in Chapter 2, 2006 IBC.)

Vapor Retarder. A vapor-resistant material, membrane or covering such as foil, plastic sheeting or insulation facing having a permeance rating of one (1) perm or less, when tested in accordance with the desiccant method using Procedure A or ASTM E96. Vapor retarders limit the amount of moisture vapor that passes through material or wall assembly. (This definition is shown for convenience and is identical to that shown in Chapter 2, 2006 IBC.)

Section AR103 BALES

AR103.1. Bales Shall Be Rectangular In Shape. The use of non-rectangular bales, such as circular bales, shall not be used in structural applications.

AR103.2 Size. Bales used with a continuous wall shall be of consistent height and width to ensure even distribution of loads with the wall system.

AR103.3 Ties. Bales shall be bound with ties of polypropylene string or baling wire. Bales with broken or loose ties shall be firmly retied. A visual check by the assigned field inspector of materials delivered to the job site will be done prior to assembly of bale walls.

AR103.4 Moisture Content. The moisture content of bales, at the time of procurement and at the time of application of the first coat of plaster or installation of another weather protective finish, shall not exceed nineteen (19%) percent of the total weight of the bale (ideal moisture content would be the same as kiln dried wood, between 15-17%). The moisture content of bales shall be determined by use of a moisture meter designed for use with baled straw or hay, equipped with a probe of sufficient length to reach the center of the bale. A minimum of five bales, selected by the inspector at random will be tested.

AR103.5 Density. Bales shall have a minimum dry density of 6 pounds per cubic foot. The dry density shall be determined by reducing the actual bale weight by the weight of the moisture content in pounds, and dividing by the volume of the bale in cubic feet. At least five bales and not less than two (2) percent, randomly selected from the bales to be used, may be tested to determine if all of the bales for the building are of acceptable density. This inspection will be done at the same time as the moisture content is done. If equipment is not available, then the builder may elect to use a third party or special inspection to perform the testing.

AR103.6 Partial Bales. Custom-made partial bales shall be firmly retied and where possible, use the same number of ties as the standard size bales.

AR103.7 Types of Straw. Bales of various types of straw, including wheat, rice, rye, barley, oat and similar grain plants, shall be acceptable if they meet the minimum requirements of this Section for

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density, shape, moisture content and ties. Bales of hay and other grasses containing seed shall not be used as a building material. When securing materials from a supplier, it is practical to remember that straw is for building and hay is for food.

AR103.8 Protection of Bales Prior To Installation. The builder must store the bales in such a manner as to protect them from weather and other sources of moisture damage. Storing bales in direct contact with the earth or uncovered during inclement weather will be subject to rejection by the building inspector.

AR103.9 Unacceptable Bales. Bales which show signs of damage due to moisture, including but not limited to mold or fungus growth or associated discoloration, even if they are of an acceptable moisture content and density, shall not be used. The builder must inspect all deliveries and protect the bales prior to the installation in the wall frames.

AR103.10 Wall Thickness. Nominal minimum bale wall thickness shall be fourteen (14") inches or greater.

Section AR104 MOISTURE

AR104.1 General. All weather-exposed bale walls, other weather-exposed bale elements and bale walls enclosing showers or steam rooms shall be protected from water damage.

AR104.2 MOISTURE CONTENT of BALES (See definitions, Section AR103.4).

AR104.3 Moisture Barriers and Vapor Retarders. Plastered bale walls may be constructed without any membrane barrier between straw and plaster, except as required elsewhere in this appendix. This is allowed to facilitate transpiration of moisture from the bales and to secure a structural bond between straw and plaster. No vapor permeance rating of less than 5 perms, except as permitted elsewhere in this appendix, or as demonstrated to be necessary by a design professional of record (this must be an Arizona Registered Architect or Engineer in accordance with ARS 32-121) shall be used.

AR104.4 Horizontal Surfaces. Bale walls and other bale elements shall have a moisture barrier at all horizontal surfaces exposed to the weather. This moisture barrier shall be of a material and installation that will prevent water from entering the wall system or other bale elements.

AR104.4.1 These horizontal surfaces include, but are not limited to exterior window sills, sills at exterior niches, bale vaults and arches, tops of landscape walls and weather-exposed benches.

AR104.4.2 The finish material at all "horizontal" surfaces shall be sloped a minimum of one inch per foot (8%) and shall drain beyond and away from all bale walls or bale elements. If the moisture barrier is below the finish material, it shall be sloped a minimum of one inch per foot (8%) and shall drain beyond the outside vertical surface of the bale's vertical finish.

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AR104.4.3 In areas where snow may collect, the moisture barrier and/or flashing element may have to be extended upwards on the vertical surface to prevent damage to the bale(s).

AR104.5 Parapets - Prohibited Construction. Parapets made of straw bales are prohibited. The roof over-hang must always extend over the top of the straw bale walls.

AR104.6 Bale/Concrete Separation. There shall be a moisture barrier and a capillary break between bales and support concrete. The moisture barrier may be of any durable sheet or liquid applied membrane that is impervious to water. The capillary break may be any material that prevents the "wicking" of moisture across the material and into the bale(s). Where bales abut a concrete or masonry wall that retains earth, there shall be a moisture barrier between the wall and the bales.

AR104.7 No Plumbing Trees Will Be Allowed in Straw Bale Walls. Conventional framed walls will be provided. Plumbing will not be installed in interior non-load bearing straw bale walls. The use of wood framed "false" walls or furred out sections in front of walls will be allowed.

AR104.7.1 Exception: Hose bibs will be allowed to penetrate a straw bale exterior wall as long as the plumbing is sleeved and the bib/sleeve extends a minimum of six (6") inches beyond the exterior/interior surfaces of the wall.

Section AR105 STRUCTURAL USE OF STRAWBALE

AR105.1 Scope. Buildings constructed with straw bales shall comply with this Section, and with all other structural provisions of the International Residential Code, 2006 Edition, Chapters 4, 5, 6 (as it pertains to those areas of a straw bale structure which is conventionally framed) and 8, unless stated otherwise in this appendix. The design considerations for Flagstaff, Arizona is found in Table R301.2(1) as amended in Title 4, City Codes, City of Flagstaff 2011 Building Code Amendments.,

AR105.1.1 Energy Considerations. The use of straw bale construction may enable the builder to meet or surpass many of the requirements of the International Energy Conservation Code (IECC).

AR105.2 General. Straw bale buildings may use any type of structural system allowed by this code and this appendix.

AR105.3 Foundations. Foundations for straw bale walls and other straw bale elements may be of any foundation type permitted by this code and amendments thereto. The frost depth requirements remain the same at 30" below finished grade. The amount of steel will remain the same at two (2), #4 rebar laid continuously at the bottom of the footing (three inches above the bottom of the footing). The straw bales may not be buried below finished grade and the first row must be placed a minimum of six (6) inches above the finished grade on a concrete slab (see detail).

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AR105.4. Alternative Foundations. Alternate foundations and foundation systems may be used if designed by an Arizona Registered design professional (Architect or Engineer).

AR105.6 Configuration of Bales. Bales may be laid flat or on-edge as limited in height by AR105.5. Bales in walls with reinforced plasters may be a running or stack bond. Bales in walls with un-reinforced plaster shall be in a running bond only.

AR105.7 Pre-Compression of Straw bale Walls.

AR105.7.1 When not required:

AR105.7.1.1. For non-structural walls

AR105.7.1.2. For walls designed or allowed to resist lateral forces only.

AR105.7.1.3. For walls bearing gravity roof loads, when the full dead load of the roof is imposed and remains on the wall for at least 28 days before plastering. No design snow load greater than 40 psf is allowed (see restrictions on spans in Section AR101.3.3). No floor loads may be supported by walls which are not pre-compressed.

AR105.7.2 When required. All walls bearing gravity loads, which are not described in AR105.6.1, shall be pre-compressed to a force equal to or greater than the design loads on the wall.

AR105.8 Voids and Stuffing. Voids in the field of structural straw bale walls shall be limited to six (6) inches in width and shall be firmly stuffed with flakes of straw or with straw-clay, before the application of plaster.

AR105.9 PLASTER SKINS.

AR105.9.1 General. Plaster skins on structural walls may be of any type allowed in Section AR106, except gypsum plaster, and shall also be limited by Table AR105-A and Table AR105-B.

AR105.9.2 Straightness. On structural walls (load bearing), plaster skins shall be straight as a function of the bale wall surface they are applied to as follows:

AR105.9.2.1. Across the face of the bale - straw bulges shall not protrude more than $\frac{3}{4}$ " across two feet of its height or length.

AR105.9.2.2 Across the face of a bale wall - straw bulges shall not protrude from the vertical plane of the bale wall more than 2-1/2" over eight (8) feet.

AR105.9.2.3 Offset of bales - the vertical face of adjacent bales may not be offset more than $\frac{3}{4}$ ".

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AR105.9.3 Plaster and Membranes. Structural bale walls shall have no membrane between straw and plaster; or shall have sufficient attachment through the bale wall from one plaster skin to the other as designed by an Arizona Registered design professional (Architect or Engineer). See sections AR106.5 and AR106.6.

AR105.10 Transfer of Loads into Plaster Skins. When plastered straw bale walls are used to bear gravity and/or lateral loads, such loads shall be transferred into the plaster skins by direct bearing or by other adequate transfer mechanism (alternatives must be provided to the Building Official for approval).

AR105.11 SUPPORT of PLASTER SKINS.

AR105.11.1 For Structural Walls. Plaster skins for structural straw-bale walls shall be continuously supported along their bottom edge to allow a load path into the foundation system. Acceptable supports include, but are not limited to: concrete or masonry footings, concrete slab, wood framed flooring which is adequately blocked for the width of the imposing load, wood beam or steel angle adequately anchored for the imposed weight of the plaster skin.

AR105.11.2 For Non-Structural Walls. Plaster skins for non-structural walls need not to be supported along their bottom edge. Maximum length of walls without cross bracing (either straw bale or conventional framing is twenty (20) feet.

TABLE AR105-A
Allowable gravity Loads (pounds per foot)
for plastered Straw bale walls (18-23" width)

WALL PLASTER ^a	SILL PLATES ^{bc}	Anchor, Bolts or Other Sill Fastening ^c	Mesh ^d	Staples	Allowable Bearing Capacity ^h
A. Clay	c	c	None P	None P	300
B. Soil-Cement ^k	c	c	d	e, f, g	800
C. Lime	c	c	d	e, f, g	450
D. Cement-line	c	c	d	e, f, g	800
E. Portland Cement ⁱ	c	c	d	e, f, g	800

^a Plasters shall conform with AR106.9 through AR106.11.2.3 for makeup and thickness with AR10.92 for straightness and with AR105.11.1 and AR105.11.2 for support of plaster skins.

^b Sill plates shall support and be flush with each face of the bale wall.

^c For walls supporting gravity loads only (or for non-structural walls), use sill plates and fasteners as required for framed walls in 2308.2 and 2308.3. See table AR 105-B for requirements for shear walls and braced panel walls.

^d May be any metal mesh allowed by this code and must be installed throughout the plaster with minimum four (4") inch laps. Fasten with

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staples per footnote "e". Staples shall be at maximum spacing of two (2") inches o.c. to roof or floor bearing assembly, or as shown necessary to

transfer loads into the plaster skins per AR105.10 and at a maximum spacing of four (4") inches o.c. to sill plates.

^e Staples shall be gun staples (stainless steel or electro-galvanized, 16 gauge with 1-1/4" legs, 7/16" crown) or manually driven staples (galvanized 15 gauge with 7/8" legs, 3/16" inner spread and rounded shoulder). Other staples may be used as designed by an Arizona Registered design professional.

^f Staples shall be firmly driven, diagonally across mesh intersections at spacing indicated. For walls with a different plaster on each side, use the lower value.

^g For walls with a different plaster on each side, use the lower value.

ⁱ Minimum 1-1/2" thickness. Building Official may require a compression test to demonstrate a minimum 100 psi compressive strength.

ⁱ Except as necessary to transfer roof or floor loads into the plaster skins per AR105.10.

^j Minimum 1-1/2" thickness. Building official may require a compression test to demonstrate a minimum 1000 psi compressive strength.

^k Containing lime as described in AR106.11

**Table AR105-B
Allowable Shear (pounds per foot) for Plastered straw bale walls
(18" and 23" inch thick)**

Wall	Plaster ^a (both sides)	Sill Plates ^b	Anchor ^c Bolts (on center)	Mesh ^d	Staples ^{e,f,g} (on center)	Allowable Shear ^{h,i}
A1	Clay ⁱ	2x4	2'8"	None	None	100
A2	Clay ⁱ	2x4	2'8"	3"x3" knotted hemp	3"	120
A3	Clay ^g	4x4	2'0"	2"x2" high-density polypropylene	2"	180
B	soil-cement ⁱ	4x4	2'0"	2"x2" 14 ga ^k	2"	300
C1	lime	2x4	2'8"	17 ga. Woven wire	2"	200
C2	lime	4x4	2'0"	2"x2" 14 ga ^k	2"	250
D1	cement-lime	4x4	2'8"	17 ga. Woven wire	2"	400
D2	cement-lime	4x4	2'0"	2"x2" 14 ga ^k	2"	450

^a Plasters shall conform with AR106.9 through AR106.11.2.3 for makeup and thickness, with AR105.9.2 for straightness and with AR105.11 for support of plaster skins.

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^b Sill plates shall be pressure treated or foundation red wood.

^c Anchor bolts shall be ½" diameter with washers with a minimum seven (7") inch embedment in the concrete foundation.

AR105.11.2 Resistance to out-of-plane lateral loads. Plastered straw bale walls are capable of withstanding out-of-plane design loads prescribed in this code with the following limitations:

AR105.11.2.1. Walls with reinforced plasters shall be limited by a 6:1 ratio of stacked bale height to bale width per AR105.5 (this limits the 23 inch wide bale to 11'-6" in height and 18" inch wide bales to 9' in height).

AR105.11.2.2 Walls with un-reinforced plasters shall be limited by a 4:1 ratio of stacked bale height to bale width (this limits the 23 inch wide bale to 7'-8" and the 18" inch wide bales to 6' in height). Walls may not be built using the overall length of the bale (often 36 to 48" in length to increase the height). An exception can be made for custom made bales is the ratios of height, width and length are maintained. Regardless, no straw bale walls will be allowed to be greater than fourteen (14') feet in height without (1) being engineered by an Arizona Registered design professional or (2) being part of a post and beam structure in which the straw bales are only used as in-fill.

AR105.11.2.3 Wall with un-reinforced plasters or no~~t~~ plaster, and with internal or external pins, shall be limited by a 6:1 ratio of stacked bale height to bale width. Pins may be ½" diameter steel (# 4 rebar), wood or bamboo. Internal pins shall be installed vertically at a maximum of two (2') foot spacing into the bales from the top course to bottom course, with the bottom course being connected to its support similarly with pins or other approved means. Pins may be continuous or may overlap through one bale course. External pins shall have full lateral bearing on the sill plate and the roof or floor bearing member and shall be tightly tied though the wall to an opposing pin with polypropylene string or bailing wire at a thirty (30") inch maximum spacing.

AR105.11.3 PRESCRIPTIVE DESIGN USING STRUCTURAL STRAW BALE WALLS.

AR105.11.3.1 General. Plastered straw bale walls may be used structurally, without design by an Arizona design professional (Architect or Engineer), as described in this subsection. Such walls shall also comply with AR105.5 through AR 105.11.2.3 of this Section and shall comply with other Sections of this appendix as applicable.

AR105.11.3.2 Load and Other Limitations. As described in 2308.2-3 through 7, and 2308.2.2.

AR105.11.3.3 Gravity Load Bearing Walls. Limited to wall types B, C, D and E, shown in Table AR105-A. Type A walls may be used if they are demonstrated to support design loads no greater than the allowable load.

AR105.3.4 Braced panels. Straw bale shear walls may be used as braced panels per the requirements and limitations in IBC Section 2308.9.3

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Bracing, and per IBC Section 2308.12. Additional requirements for conventional construction in Seismic Design Category C. Straw bale shear wall types B, C, D and E shown in Table AR105-B may be used in situations where braced wall panel types 2, 3, 4, 6 and 7 are allowed. Straw bale shear wall type A may be used in situations where braced wall panels types 1 and 5 are allowed.

AR105.12 Connection of Framed Walls to Straw bale Walls. Framed walls perpendicular to or at an angle to a straw bale wall assembly, need only be fastened to the bottom and top wood members of the straw bale wall per framing connections permissible in this code. Where such connection is not possible, the abutting stud shall be connected to alternating straw bale courses with a ½" diameter steel (#4 rebar), wood or bamboo dowel with minimum of eight (8") penetration into the straw bale.

AR105.13 Alternate Performance Design Criteria (must provide structural calculations and be stamped by an Arizona Registered design professional). When plastered straw bale walls or other elements are engineered, they may use the model of retained, thin shell, reinforced concrete, as in the American Concrete Institute's ACI-318 Manual. This model may be used for all reinforced plasters, including those without cement. Such design and analysis shall be made in accordance with the following:

AR105.13.1 General. Straw bale structural systems and elements shall be designed using engineering principles, fundamental engineering behavior and principles of mechanics.

AR105.13.2 Rationality. Straw bale structural elements shall be designed based on a rational analysis in accordance with established principles of mechanics. These elements shall provide a complete load path capable of transferring all loads and forces from their point of origin to the load-resisting elements based on a rational connection of components.

AR105.13.3 System Characteristics. Strength, stiffness and toughness (ductility) characteristics of the bales and their skins shall be considered in the design of the system.

Section AR 106 FINISHES

AR106.1 General. Finishes applied to straw bale walls may be of any type permitted by this code and shall comply with this Section and the provisions of Chapter 14 (Exterior Walls, 2006 IBC) and Chapter 25 (Gypsum Board and Plaster, 2006 IBC) unless stated otherwise in this Section.

AR106.2 Purpose and Where Required. Straw bale walls and other straw bale elements shall be finished so as to provide mechanical and fire protection of the bales, restrict the passage of air through the bales and to protect them from weather.

AR106.3 Vapor Retarders. No vapor retarder may be used on a bale wall, nor shall any other materials be used which has a vapor permeance rating of less than 5 perms; except as permitted elsewhere in this appendix or

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as demonstrated to be necessary by an Arizona Registered design professional (Architect or Engineer).

AR106.4 Plaster. Plaster applied to bales may be of any type described in this section.

AR106.5 Plaster and Membranes. Plaster may be applied directly to straw bale walls and other straw bale elements, in order to facilitate transpiration of moisture from the bales and to secure a mechanical bond between the skin and the bales; except where a membrane is allowed or required elsewhere in this appendix. Structural bale walls shall have no membrane between straw and plaster or shall have sufficient attachment through the bale wall from one plaster skin to the other, as designed by an Arizona Registered design professional (Architect or Engineer).

AR106.6 Lath and Mesh for Plaster. In straw bale construction the surface of the straw bales functions as lath and no other lath or mesh is necessary; except as required for tensile strength of the plaster and/or wall assembly in particular structural applications (see AR105). Straw bales laid flat or on-edge provide a sufficient mechanical bonding surface between plaster and straw.

AR106.7 Plaster on Non-Structural Walls. Plaster on walls that do not carry gravity loads and are not designed to resist in-plane lateral forces, may be any plaster as described in this Section.

AR106.8 Plaster on Structural Walls. Plaster on structural walls shall comply with AR105.9 through AR105.11. Plaster on walls that carry gravity loads shall comply with Table AR105-A. Plaster on walls designed to resist in-plane lateral forces, shall comply with Table AR105-B.

AR106.9 Clay Plaster (Also known commonly as earth or earthen plaster).

AR106.9.1 General. Clay plaster is any plaster whose binder is comprised primarily of clay. Clay plasters may also contain sand or other inert granular material and may contain reinforcing fibers. Acceptable reinforcing fibers include, but are not limited to, chopped straw, hemp fiber, nylon fiber and animal hair.

AR106.9.2 Mesh. Clay plaster may have no mesh.

Exception: A natural fiber mesh, corrosion-resistant metal mesh or high-density polypropylene mesh may be used.

AR106.9.3 Thickness. Clay plaster shall be a minimum one (1") inch thick, unless required to be thicker for structural or fire-resistance as described in this appendix.

AR106.9.4 Rain-Exposed. Clay plaster, where exposed to rain (snow) shall be finished with lime plaster or other erosion resistant finish.

AR106.9.5 Prohibited Finish Coat. Cement plaster and cement-lime plaster are prohibited as a finish coat over clay plasters.

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AR106.9.6 Additives. Additives may be used to increase the plasters workability, durability, strength or water resistance.

AR106.9.7 Separation of Wood and Clay Plaster. No separation or moisture barrier is required between untreated wood and clay plaster. (Wood, earth and foundation separation requirements are still enforced and covered in Section R319 and R403 of 2006 IRC).

AR106.10 Earth-Cement Plaster (also know commonly as soil-cement, stabilized earth or pise').

AR106.10.1 General. Earth-cement plaster is comprised of earth (free or organic matter), Portland cement and may include sand or other inert granular material. May contain reinforcing fibers.

AR106.10.2 Mesh. Earth-cement plaster shall use any corrosive-resistant metal mesh permitted by this code and as described in Section AR105 if used on a structural wall.

AR106.10.3 Thickness. Earth-cement plaster shall be a minimum of 1-1/2" thick.

AR106.11 Gypsum Plaster.

AR106.11.1 General. Gypsum plaster shall comply with Section 2511 of the 2006 IBC.

AR106.11.2 Restriction of Use. Gypsum plaster is limited to use on interior surfaces and on non-structural walls, except as a finish coat over an allowed structural plaster.

AR106.12 Lime Plaster.

AR106.12.1 General. Lime plaster is any plaster whose binder is comprised primarily of calcium hydroxide (CaOH). This includes Type N or Type S hydrated lime, natural hydraulic lime or quicklime. Lime plasters shall comply with ASTM Standards C5 and C206. The plaster may be applied in two coats, provided that the combined thickness is a least 7/8" thick and each coat is not great than 5/8" thick. The combined thickness of all plaster coats (regardless of numbers) shall be no more than 1-1/2" thick.

AR106.13. Cement-Lime Plaster.

AR106.13.1. General. Cement-lime plaster shall comply with Section 2508 of the 2006 IBC, except that the plaster may be applied in two (2) coats, provided that the combined thickness is at least 7/8" thick and each coat is no greater than 5/8" thick.

AR 106.14 Portland Cement Plaster.

AR106.14.1 General. Portland cement plaster shall comply with Section 2512 (2006 IBC) of this code, except that the amount of lime in all plaster coats shall be a minimum of one (1) part lime per six (6) parts cement so as to allow a minimum acceptable vapor permeability. The

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plaster may be applied in two (2) coats, provided that the combined thickness is at least 7/8" thick and each coat is not great than 5/8" thick. The combined thickness of all plaster coats (regardless of numbers) shall be no more than 1-1/2" thick.

AR106.15 Alternative Plasters. Plasters or variations of plasters, which do not fit in any other category described in this Section, may be allowed if such plasters are demonstrated to be appropriate for the particular application. Approval shall be made by the Building Official.

AR106.16. Finishes Over Plaster. Other finishes, as permitted elsewhere in this code, may be applied over the plaster, except as prohibited in Section AR106.17.

AR106.17. Prohibited Plasters and Finishes. Any plaster or finish with a cumulative perm rating of less than 5 perms is prohibited on straw bale walls or other bale elements, unless demonstrated to be necessary by the Arizona Registered design professional (Architect or Engineer).

AR106.18. Separation of Wood and Plaster. Where wood framing or wood sheathing occur in straw bale walls, such wood surfaces shall be separated from any plaster finish with No. 15 asphalt felt, Grade 'D' paper or other approved material per Section 1404.2 of this code, unless the wood is preservative-treated or naturally durable.

Exception: Clay plasters, see Section AR106.9.7

Section AR107 FIRE-RESISTANCE

AR107.1 Fire-Resistance Rating.

AR107.2. Rating with Plaster Finish. Plastered straw bale walls have a one-hour fire resistance rating, provide the components of the wall fit with all of the following parameters:

AR107.2.1 Bales may be laid flat or on-edge.

AR107.2.2 The bale wall must have a minimum un-plastered thickness of fourteen (14") inches.

AR107.2.3. Bales may be installed in a running bond or stack bond, but vertical joints in a stack bond and continuous vertical gaps at any posts within both types of wall, must be fire-stopped with straw-clay

AR107.2.4. The wall must be finished on both sides and exposed ends with a plaster of any type allowed by this appendix. Clay plaster must be a minimum 1-1/2" thick and a minimum of two layers.

AR107.2.5 The wall may be no closer than five (5') to a property line.

AR107.2.6 Rating with other finishes. Straw bale walls covered with finish materials other than or in addition to plaster, shall be deemed

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to have the equivalent fire resistive rating as wood-frame construction covered with the same finish materials.

AR107.3 Permitted in Types of Construction. Straw bale walls with a one-hour fire resistance rating per Section AR107.2 are permitted wherever combustible one-hour walls are allowed by Chapter 6 of the IBC. Such walls and unrated straw bale walls with any finish allowed by this code are permitted whenever combustible no-hour walls are allowed in Chapter 6 of the IBC.

AR107.4 Openings in Rated Walls. Openings and penetrations in any straw bale wall rated and required to be rated for a particular fire-resistance rating and for a particular applications, shall satisfy the same requirements for openings and penetrations in walls with the same fire-resistive rating and application as stated elsewhere in this code.

AR107.5 Clearance to Fireplaces and Chimneys. Straw bale surfaces adjacent to fireplaces or chimneys shall have a minimum of 2" clearance from the surfaces of the plaster coat and the chimney structure. The space between can be bridged by non-combustible materials, such as flashing and aluminum or other metal channel materials.

Section AR108 ELECTRICAL

AR108.1 Scope. Wiring and other elements of the electrical system within or mounted to straw bale walls shall comply with all Sections of this code which govern electrical systems and with the 2011 National Electric Code.

AR108.2 Wiring. Type NM or UF cable may be used, or wiring may be in metallic or non-metallic conduit (which is the preferred method). Wiring which is unprotected by conduit shall be installed a minimum of two (2") inches from the face of the bale, except as necessary to enter or exit a junction box. The wiring shall be pushed into joints between bales or into the bale itself or the bales may be channeled to receive the wire.

AR108.3 Wiring Attachment. Where not held securely between bales or within a bale and not attached via staples to a wood member, wiring on straw bale walls shall be attached with minimum 17 gauge wire in a "U" configuration with a minimum eight (8") long legs.

AR108.4 Attachment of Electrical Boxes. Electrical boxes on bale walls shall be securely fastened to non-bale structural elements or to wooden stakes driven a minimum of twelve (12") into the bales or shall be secured by a combination of wire mesh and plaster, or by an acceptable equivalent method.

AR108.5 Attachment of Service and Sub-panels. Electrical service and sub-panels on bale walls shall be securely fastened to wood structural members, or to other wood members that have been adequately fastened to the straw bales. All proposed service panel and sub-panel support members shall be approved by the field inspector prior to attachment. The administrative authority, Arizona Public Service, retains the right

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to make any adjustments for support requirements and should be contacted prior to installation.

Section AR109 WALL AND ROOF BEARING ASSEMBLY ANCHORAGE AND CONSTRUCTION

AR109.1 General. The following is a recommended construction technique for straw bale construction. A designer or Arizona Registered design professional may submit other proposed methods as long as the general requirements of this Section and the International Building Codes are followed.

AR109.2 Bale interconnection support. Vertical reinforcing bars with a minimum diameter of ½" (#4 rebar), shall be embedded in the foundation at a minimum depth of six (6") inches and shall extend above the foundation a minimum of twelve (12") for the purpose of impaling the first course of bales. These vertical bars shall be located along the centerline of the bale wall, spaced not more than two (2) feet apart. A vertical bar shall also be located within one (1) foot of any opening (doors or window element) or corner, except at locations occupied by anchor bolts. These pins or bars will be wet set along with the anchor bolts.

AR109.3 Intersecting walls. Wall of other materials intersecting the straw bale walls shall be attached to the bale wall by means of one or more of the following methods or an acceptable equivalent.

(Adopted, Ord. No. 2009-06, 07/17/2009 (Amended Ord. No. 2011-12, (July 19, 2011))

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CHAPTER 4-03

INTERNATIONAL BUILDING CODE

Sections:

4-03-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

Section 4-03-001-0001 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the International Building Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption.

Amend IBC Section 105.1.1, Annual permit and Section 105.1.2 by replacing with the following:

Section 105.1.1 Annual Facilities Permit Requirements - General. The Annual Facility Permit is intended to simplify the permitting and inspection process for Qualified Facilities. The Annual Facility Permit simplified the process by allowing City inspectors to review plans without being processed through formal plan review. Instead, it allows the Qualified Agent and /or the Qualified Facility Maintenance Staff member, who are familiar with the construction history of the Qualified Facility, to review work without requiring a standard building permit. The process provides a limited exemption from the Building Code compliance. The Annual Facility Permit is issued to a business owner(s) for one building or a series of related buildings in a single complex owned by the same owner(s). The Annual Facility Permit fee shall be \$3,500 initially and \$2,000 for the Annual Facility Permit renewal fee. The business owner(s) covered under the Annual Facility Permit shall provide annual certification for the Qualified Agent and shall provide a detailed description of the anticipated work to be performed under the Annual Facility Permit.

Add 105.1.1.1 Definitions: For the purposes of this section, certain terms are defined as follows:

INSPECTOR is a person employed by the City of Flagstaff (either through contractual services or as a full time City employee) to perform field and/or plan review inspections of buildings and structures in order to enforce the City's Building Code requirements.

PROJECT SCOPE LIMITATIONS are restrictions on the size of a project for eligibility for the Qualified Facility building permit exemption under an Annual Facility Permit. The exemption eligibility is limited to projects not to exceed \$35,000 in construction costs or twenty-five percent (25%) of the existing square footage of the structures.

QUALIFIED FACILITY MAINTENANCE STAFF MEMBER is a person(s) either employed by or contracted with the Qualified Facility owner(s) and who

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is certified by the State of Arizona in the case of specialized inspections, such as (elevators, boiler, and fire sprinkler suppression systems) and/or is authorized by the Qualified Facility owner(s) to engage a Licensed contractor for the type of work being performed.

QUALIFIED AGENT is a person(s) authorized to represent the business Owner(s) of a Qualified Facility, registered and residing in the State of Arizona, and who shall be responsible to the business owner(s) for compliance with the substantive provisions of this code.

QUALIFIED FACILITY is an existing structure(s) owned by an individual(s), firm, corporation, or legal entity engaged in the business of manufacturing, processing, providing services or other commercial enterprise. The Qualified facility includes all existing Specialized Buildings and related building service equipment, all of which shall be an integral part of the business of manufacturing, processing, providing services, or other commercial enterprises of business owner(s). Subject to Project Scope Limitations, the Qualified facility under an Annual Facility Permit is generally exempt from the standard building permit requirements pertain to remodeling, repairs, alterations, improvements and conversions constructed completely within the original "footprint" of the existing structure(s). Any Qualified Facility which requires new additions, new detached facilities, or new facilities associated with all operations, shall require Development Review Board approval and shall meet all standard building permit requirements as set forth in Section 105.

SPECIALIZED BUILDING is an existing structure(s) that serves as an accessory building(s) as defined by Section 10-14-004-0001 of the City's Land Development Code, COF Ord.1690, and is used for the business of manufacturing, processing, provision of services, or other commercial enterprise of the Qualified Facility.

Add 105.1.2.2. Permit Issuance. Each applicant for an Annual Facilities Permit shall fill out an "Application for BUILDING/GRADING Permit" form. Each Qualified Facility shall require a separate application form. The information on the form shall include the following:

- A. The name, address, phone number, and business operation of the Qualified Facility owner(s). The name, address, and phone number of the Qualified Agent (if any) for the business and proof of current technical registration and licensing by the State of Arizona. If the Qualified Agent is not an employee of the Qualified Facility owner(s), the contract shall be for at least a one-year term.
- B. The name and phone number of the Qualified Facility Maintenance Staff Member for the Qualified Facility owner(s).
- C. A statement that the Qualified Agent may on behalf of the Qualified Facility owner(s), contract with third party on-site inspectors and/or superintendents for completing work under the Annual Facility Permit. In addition, a statement that the Qualified Facility owner(s) assumes all Responsibility for

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assuring that all work performed under the Annual Facility Permit meets the current Building Code standards.

- D. A site plan clearly indicating the existing location and total square footage of the entire Qualified Facility at the site intended to be covered under the Annual Facility Permit, including all Specialized Buildings and building service equipment.
- E. A statement describing the nature and extent of all work expected to be performed at the Qualified Facility under the Annual Facility Permit.

Add 105.1.2.2.1 The Annual Facility Permit applicant may schedule inspections using the blanket permit issued after pre-paying an hourly fee (currently \$47/hour, Section 107 of the 1997 Uniform Administrative Code) and scheduling the inspection prior to any time limitations provided by the City of Flagstaff.

Add 105.1.2.2.2 The appropriate routing action shall be taken by the City's Building Official for review of each Annual Facility Permit application. The applicant shall be notified upon approval or denial. If the application is disapproved, the applicant may appeal such decision to the Building and Fire Code Board of Appeals (Resolution 2001-42, 19 June 2001) no later than fourteen (14) calendar days after receipt of notice of disapproval. The fee for filing an appeal is \$250, which is non-refundable.

Add 105.1.2.3 Permit Expiration. The Annual Facility Permit(s) shall be valid for a period of one year from the date of issue. The Annual Facility Permit shall be renewed annually and timely payment of annual renewal fee shall be made prior to performing any further permitted work.

Add 105.1.2.3.1 If the Qualified Agent's contract or employment at the Qualified Facility terminates prior to the expiration of the Annual Facility Permit, the Qualified Facility owner(s) shall notify the City's Building Official in writing within seven (7) calendar days. The Qualified Facility owner(s) shall engage a replacement Qualified Agent within fifteen (15) calendar days or the Annual Facility Permit shall automatically terminate. Application for a new Annual Facility Permit(s) shall be submitted with payment of new fees after fifteen (15) calendar days if no new Qualified Agent is contracted with or employed under the original Annual Facility Permit by that time. If the original Annual Facility Permit terminates and no new Annual Facility Permit is issued, then the Qualified Facility owner(s) shall complete any unfinished work with inspections provided by the City of Flagstaff at a regular hourly rate. No new projects may be started at the Qualified Facility under a terminated Annual Facility Permit.

105.1.2.4 Scope of Work. Project Scope Limitations shall be determined by project size (both dollar amount and physical area). Projects for remodeling, repairs, alterations, improvements, and conversions within the original "footprint" of the existing building(s) shall be limited

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to \$35,000 per project or no more than 25% of the original footprint area of the existing building(s) comprising the Qualified Facility.

Add 105.1.2.4.1 Projects may not alter or modify egress or required fire sprinkler systems without specific review and approval by the City's Building Official. Fire sprinkler systems shall require a separate permit issued through the City of Flagstaff Fire Department. Plan review shall be reimbursed at the hourly rate currently in effect.

Add 105.1.2.4.1 Projects may not be phased to circumvent the Project Scope Limitations. If the entire building is going to be renovated, or if there will be a significant change in occupancy, or if there will be a change in use, or if the portions of the building(s) will require demolition prior to renovation, then the Development Review Board and standard building permit process shall apply.

Add 105.1.2.4.3 A list of all projects underway or completed under the Annual Facility Permit shall be maintained by the Qualified Agent and made available for review by the City of Flagstaff Building Official upon request.

Add 105.1.2.4.4 All commercial demolition shall be subject to the rules established by Title 40, Code of Federal Regulations, Part 61, Subpart M, Asbestos NESHAP; Arizona Revised Statutes Title 49, § 49-421 et. seq. and § 49-471 et seq.; and Arizona Administrative Code, Title 18, Chapter 2, R18-2-1101. (See exemptions on page 3, Sec 61.145(a) Applicability).

~~CHAPTER 3 of IBC, USE AND OCCUPANCY CLASSIFICATIONS~~

~~Amend Section 308.2 to read:~~

~~308.2 Group I-1. To coincide with the State of Arizona Health Department, this occupancy shall include buildings, structures or parts thereof housing more than 10 persons on a 24-hour basis, who because of age, mental disability or other reasons, live in a residential environment that provides supervisory care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to the following:~~

~~Residential board and care facilities
Assisted living centers
Halfway houses
Group homes
Congregate care facilities
Social rehabilitation facilities
Alcohol and drug abuse centers
Convalescent facilities~~

~~A facility such as the above with 10 or fewer persons shall be classified as a Group R-4 Condition 1 or shall comply with the International Residential Code in accordance with Section 101.2 where the building is in compliance with Section 419 of this code.~~

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~~Amend Section 308.3 to read:~~

~~308.3 Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing, custodial, personal, or directed care on a 24-hour basis of more than 5 persons who are not capable of self-preservation by responding to an emergency situation without physical assistance from staff. This group shall include but not be limited to the following:~~

~~Hospitals~~

~~Nursing homes (both intermediate care facilities and skilled nursing facilities)~~

~~Mental hospitals~~

~~Detoxification facilities~~

~~A facility such as the above with 5 or fewer persons shall be classified as a Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2~~

~~This occupancy shall also include building and structures used for assisted living homes providing supervisor, personal, or directed care on a 24-hour basis of more than 10 persons who are not capable of self-preservation by responding to an emergency without physical assistance from staff. A facility such as the above with 10 or fewer persons shall be classified as an R-4 Condition 2.~~

~~Amend Section 310.1, R-4 to read:~~

~~Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living homes including not more than 10 occupants, excluding staff.~~

~~Amend Section 310.1 by adding:~~

~~310.1.1 Condition 1. This occupancy condition shall include facilities licensed to provide supervisory care services in which occupants are capable of self-preservation by responding to an emergency situation without physical assistance from staff. Condition 1 facilities housing more than 10 persons shall be classified as a Group I-1.~~

~~310.2 Condition 2. This occupancy condition shall include facilities licensed to provide personal or directed care services in which occupants are incapable of self-preservation by responding to an emergency without physical assistance from staff. Condition 2 facilities housing more than 10 persons shall be classified as Group I-2.~~

~~R-4 occupancies shall meet the requirements for construction as defined in Group R-3 except as otherwise provided for in this code and Section 419 or shall comply with the International Residential Code in accordance with Section 101.2 where the building is in compliance with Section 419 of this code.~~

~~Amend Section 310.2 by changing:~~

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~~**PERSONAL CARE SERVICE.** Assistance with activities of daily living that can be performed by persons without professional skills or professional training and includes the coordination or provision of intermittent nursing services and the administration of medications and treatments.~~

~~**RESIDENTIAL CARE/ASSISTED LIVING HOME.** A building or part thereof, housing a maximum of 10 persons, excluding staff, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides supervisory, personal, or directed services. This classification shall included, but not be limited to the following: residential board and care facilities, assisted living homes, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.~~

~~Amend Section 310.2 by adding:~~

~~**DIRECTED CARE SERVICE.** Care of residents, including personal care services, who are incapable of recognizing danger, summoning assistance, expressing need, or making basic care decisions.~~

~~**SUPERVISORY CARE SERVICE.** General supervision, including daily awareness of resident functioning and continuing needs.~~

~~Amend Section 419 in its entirety to read as follows:~~

~~**Section 419 RESIDENTIAL CARE/ASSISTED LIVING HOMES**~~

~~**419.1 Applicability.** The provisions of this section shall apply to a building or part thereof housing not more than 10 persons, excluding staff, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides licensed care services. Except as specifically required by this division, R-4 occupancies shall meet all applicable provisions of Group R-3.~~

~~**419.2 General.** Buildings or portions of buildings classified as R-4 occupancies shall meet all the applicable provisions of Group R-3. and may be constructed of any materials allowed by this code. The building or buildings shall not exceed two stories in height nor be located above the second story in any building, and shall not exceed 2000 square feet above the first story except as provided in Section 506.~~

~~**419.3 Special Provisions.** R-4 occupancies having more than 2000 square feet of floor area above the first floor shall be of not less than one-hour fire resistive construction throughout.~~

~~**419.3.1 Mixed Uses.** R-4 occupancies shall be separated from other uses as provides in Table 302.3.2.~~

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~~419.4 ACCESS AND MEANS OF EGRESS FACILITIES.~~

~~419.4.1 Accessibility.~~ R-4 occupancies shall be provided with at least one accessible route per the Americans with Disabilities Act. Sleeping rooms and associated toilets shall be accessible.

~~Exception:~~ Existing buildings shall comply with Section 3409. Bathing and toilet facilities need not be made accessible, but shall be provided with grab bars in accordance with ICC/ANSI A117.1.

~~419.4.2 EXITS~~

~~419.4.2.1 Number of Exits.~~ Every story, basement, or portion thereof shall have not less than two exits.

~~Exception:~~ Basements and stories above the first floor containing no sleeping rooms may have one means of egress as provided in Chapter 10.

~~419.4.2.2 Distance to Exits.~~ The maximum travel distance shall comply with Section 1004, except that the maximum travel distance from the center point of any sleeping room to an exit shall not exceed 75 feet.

~~419.4.2.3 Emergency Exit Illumination.~~ In the event of a power failure, exit illumination shall be automatically provided from an emergency system powered by storage batteries of an onsite generator set installed in accordance with the 2011 National Electrical Code.

~~419.4.2.4 Emergency Escape and Rescue.~~ R-4 occupancies shall comply with the requirements of Section 1025, except that Exception 1 to Section 1025.1 does not apply to R-4 occupancies.

~~419.4.2.5 Delayed Egress Locks.~~ In R-4 Condition 2 occupancies, delayed egress locks shall be permitted in accordance with Section 1008.1.3.4 and 1008.1.8.6 items 1,2,4,5 and 6.

~~419.5 SMOKE DETECTORS AND SPRINKLER SYSTEMS~~

~~419.5.1 Smoke Alarms.~~ All habitable rooms and hallways in R-4 occupancies shall be provided with smoke alarms installed in accordance with Section 907.2.10.

~~419.5.2 Sprinkler Systems.~~ R-4 occupancies shall be provided with a sprinkler system installed in accordance with Section 903.2.9. Sprinkler systems installed under this Section shall be installed throughout, including attached garages, and in Condition 2 facilities, and shall include attics and concealed spaces of or containing combustible materials. Such systems may not contain unsupervised valves between the domestic water riser control valve and the sprinklers. In R-4 Condition 2 occupancies, such systems shall contain water flow switches electrically supervised by an approved supervising station, and shall sound an audible signal at a constantly attended location.

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CHAPTER 5 of IBC, GENERAL BUILDING HEIGHTS AND AREAS

Amend Section 509, "Tenant Space Separation" by adding:

Section 509.1 All tenant spaces within a single structure shall be separated by a wall constructed of wood or metal studs and covered with a minimum of ½" drywall material on each side from the finished floor to the underside of the roof deck or flooring above. Walls can be constructed of any material approved by the Building Code. Requirements for fire rated separations will be governed by the different types of occupancy and materials and protection requirements are covered in Chapter 7, 8 and 9 of this code.

CHAPTER 15 IBC, ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

Revise the amendment to Section 1506.3 with the following language:

All roofing materials used must be a class "A" or "B" material and rolled roofing is to be of a self-adhering polymer bitumen type material. (Amended, Ord. 2009-06, 07/18/2009)

Amend Sections 1507.8 and 1507.9 by deleting each section in their entirety.

CHAPTER 18 of IBC, SOILS AND FOUNDATIONS

Amend Sections 1805.2 and 1805.4 by adding:

1805.2.4 and 1805.4.6 Footing Reinforcement. A minimum of 2-#4 steel reinforcement spaced per ACI 318, Section 7.5 shall be required in all footings.

Amend 1805.4.1 by changing the last line of the first paragraph to:

The minimum width of footings shall be 16 inches.

Amend Table 1805.4.2 by changing:

12 and 15 inch width of footing to 16 inches minimum.

6 inch thickness of footing to 8 inches minimum.

Amend Section 1805.5.2.2 by adding paragraph number 8:

8. Masonry foundation walls shall be solid grouted up to floor slab.

CHAPTER 31, IBC, SPECIAL CONSTRUCTION

Revise the amendment to Section 3109, Swimming Pool Enclosures and Safety Devices, as follows:

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Refer to the Arizona Revised States (ARS) governing pool enclosure requirements. (Amended Ord. No. 2011-12, (July 19, 2011))

INTERNATIONAL BUILDING CODES (IBC), 2006~~12~~ EDITION - APPENDICES

Adopt as the following appendices with the exceptions and/or amended language as follows:

Appendix B - Board of Appeals

Appendix C - Group U - Agricultural Buildings

APPENDIX I - Patio Covers

APPENDIX J - Grading

Amend Appendix J, by adding Section J104.5 Storm Water requirements:

1. Contractor shall submit to the Arizona Department of Environmental Quality a Notice of Intent (NOI) and a Notice of Termination (NOT) pursuant to the requirements of ARS Title 49, Chapter 2, Article 3.1. A copy of the submitted NOI and the NOT shall be provided to the City of Flagstaff Stormwater Section. The NOI shall be submitted prior to issuance of any City of Flagstaff grading or offsite permits. The NOT shall be submitted prior to final acceptance of off-site improvements and the certificate of occupancy.
2. An Arizona certified or Registered Civil Engineer shall prepare and submit for review and approval a Storm water Pollution Prevention Plan (SWPPP) in accordance with the Arizona Department of Transportation (ADOT) Best Management Practices (BMP) Manual (or other BMP's as may be approved by the Storm water Manager). Submittal shall be made concurrent with the Civil Plan submittal and attached to the Civil Plan set. Review timeframes shall be the same as other civil reviews.
3. Prior to commencement of Grading Activities, the SWPPP shall be in place and the City of Flagstaff contacted for inspection. The grading permit shall be issued upon City of Flagstaff approval of the implementation of the approved SWPPP.
4. During construction, the SWPPP shall remain in place, and shall be maintained until project completion as witnessed by a Final Grading Certification and the filing of a NOT. Failure to maintain structural controls may result in a Stop Work Order.
5. In accordance with the provisions of this section, the City of Flagstaff may withhold permits, occupancy or enforce by other remedy in order to ensure compliance.

(Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008; Amended, Ord. 2009-06, 07/18/2009; Amended Ord. 2011-12, July 19, 2011)

**20113 AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

**CHAPTER 4-04
INTERNATIONAL PLUMBING CODE**

Sections:

4-04-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

4-04-001-001 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the International Plumbing Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption.

CHAPTER 3, GENERAL REGULATIONS

Amend Section 301.3 by adding to the end of the paragraph:

This section shall not be construed to prevent indirect waste systems required by Chapter 8.

Exception: Bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to discharge to the sanitary drainage system where such fixtures discharge to an approved gray water system for flushing of water closets and urinals or for subsurface landscape irrigation.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section 301.7 to read:

Where conflicts between this Code and the conditions of the listing or the manufacturer's installation instructions occur, the listing or manufacturer's installation requirements shall apply.

Amend last sentence of Section 305.6 to read:

Exterior Water supply piping shall be installed not less than thirty (30) inches (765 mm) below grade.

Change the amendment to Section 305.6.1 by adding the following language:

Building sewers that connect to private sewage disposal systems shall be regulated by the Coconino County Health Department. Building sewers for single family detached buildings on City provided sewer shall be a minimum of twelve (12) inches (306 mm) below grade.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section 312.1, changing the ninth tenth sentence to read:

All plumbing system piping shall be tested with either water or air.

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

Amend Section 312.3 by deleting the first sentence.

Amend Section 312.4 to DELETE in its entirety.

Amend Section 312.6 to DELETE in its entirety.

Amend Section 312.7 to DELETE in its entirety.

CHAPTER 4, FIXTURES, FAUCETS AND FIXTURE FITTINGS

Amend Section 419, Urinals by adding a new sub-section:

419.4 Urinals. All new commercial, institutional, and public facility construction or additions and alterations to restrooms in commercial, institutional, and public facilities shall install ~~waterless~~-urinals with a maximum 1 pint flush.

Amended Ord. 2007-48, 01/15/2008; Amended, Ord. 2009-06, 07/18/2009;
Amended Ord. No. 2011-12, July 19, 2011

~~Chapter 5, WATER HEATERS~~

~~Amend Section 501 by adding:~~

~~**501.9 Energy Efficiency.** Water heaters must be insulated using exterior "jackets" or, "Energy Star" or energy conservation rated appliances that have pre-installed insulation, the insulation information must be available on the appliance at the time of final inspection. A minimum total insulation value of R-16 must be achieved. (This applies to new installation or replacements.)~~

CHAPTER 6, WATER SUPPLY AND DISTRIBUTION

Amend Table 604.4 by changing the following values:

Maximum Flow Rate or Quantity for a Water Closet to Max. 1.3 gal.(HET)

Amend Section 607.2 by deleting the section in its entirety.

Amend Section 610 to DELETE in its entirety.

CHAPTER 7 SANITARY DRAINAGE

Amend Section 703 by adding a new section:

703.6 Building Sewer Locating Means. All non-metallic building sewer piping shall be installed with a plastic covered No. 12 AWG Type UF 600V tracer wire taped to the top of the piping with a minimum 10 mil tape. The building sewer tracer wire shall be green in color.

**20113 AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

CHAPTER 9, VENTS

Revise the amendment to Section 904.1 to read:

"...terminated at least 12 inches (306 mm) above the roof."

(Amended Ord. No. 2011-12, (July 19, 2011))

Adopt the Appendix C, Gray Water Recycling Systems, as written.

Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008

**20143 AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

CHAPTER 4-05

NATIONAL ELECTRICAL CODE

Sections:

4-05-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

4-05-001-0001 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the National Electrical Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption.

ARTICLE 110, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS

Amend Article 110.2 by adding:

All electrical conductors, components, material and equipment shall be listed and labeled.

Amend Article 110.5 to read:

Conductors used to carry current shall be of copper only. Where the conductor material is not specified, the material and the sizes given in this Code shall apply to copper conductors. The use of aluminum wire shall be approved for feeders and service entrance conductors only and shall not be used for branch circuit wiring.

Amend Article 110.7 by adding:

All equipment rated at 1000 amperes or more shall be tested for insulation breakdown, mechanical integrity, and workmanship prior to the equipment being energized. A certified Hi-pot test shall be performed and a certificate issued to the City of Flagstaff Project Inspection Program, Development Services Section. This test shall be performed in the presence of a City of Flagstaff Building Inspector and conducted by a testing firm approved by the Building Official.

Said test shall be performed for a period of one (1) minute, the application of a 60 hertz alternating potential of 1000 volts plus twice the rated phase to phase voltage of the equipment.

This test shall be performed between all phases to ground, phase to phase, and neutral if isolated.

ARTICLE 210, CIRCUITS

Amend Article 210.5 by adding:

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

(D) **Color Code.** Where 15, 20, or 30 amp branch circuits requiring a neutral are installed in race ways or cable assemblies, the conductor of branch circuits connected to the same system shall conform to the following color code:

<u>Volts</u>	<u>Phase</u>	<u>System</u>	<u>Phase A</u>	<u>Phase B</u>	<u>Phase C</u>	<u>Neutral</u>
120/208	3	Wye	Black	Red	Blue	White
120/240	3	Delta	Black	Orange	Blue	White
277/480	3	Wye	Brown	Orange	Yellow	Gray

ARTICLE 250, GROUNDING

Amend Article 250.30 (A) (2) by adding:

(a) All new building construction shall have a one piece concrete-encased electrode and electrode conductor (Ufer), a minimum twenty (20) feet in the footing, sized from the following table:

0-200 Amp Service	1 piece #4 copper (electrode and electrode conductor)
400 Amp Service	1 piece 1/0 copper (electrode and electrode conductor)
600 Amp Service	1 piece 2/0 copper (electrode and electrode conductor)
Larger than 800 Amp Service	1 piece 3/0 copper (electrode and electrode conductor)

Where the Ufer has been lost, damaged, or un-located, a ground ring or modification of the same consisting of thirty (30) feet of #2 bare copper wire, buried a minimum of thirty (30) inches deep in a trench, or a Plate electrode per 250.53 (H) and per 250.56 shall be required in lieu of a concrete-encased electrode. Services larger than 200A shall be sized from the table above.

(Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008; Amended Ord. No. 2009-06, 07/18/2009; Amended Ord. 2011-12, July 19, 2011)

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

CHAPTER 4-06

INTERNATIONAL MECHANICAL CODE

Sections:

4-06-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

Section 4-06-001-0001 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the International Mechanical Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption.

CHAPTER 3, General Regulations

Revise the amendment to Section 303.4 as follows:

Refer to amendments to the IFGC Section 305.5 for requirements.

(Amended Ord. No. 2011-12, (July 19, 2011))

Amend Section 304.2 to read:

Where conflicts between this Code and the conditions of the listing or the manufacturer's installation instructions occur, the listing and manufacturer's installation requirements shall apply.

Amend Section 304.6 to read:

Appliances located in private garages and carports shall be installed per Section 303.3 and/or 304.4.

Amend Section 306.1 by adding to the last sentence "or the removal of any other appliances."

CHAPTER 9, IMC, SPECIFIC APPLIANCES, FIREPLACES, AND SOLID FUEL-BURNING EQUIPMENT

Amend Section 903.3 to read:

An unvented gas log heaters shall not be installed at any time unless first approved by the local gas utility company. A signed and dated letter of such approval shall be submitted to the Building Official before a permit can be issued.

**2014~~3~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

Amend Section 928, Unvented Room Heaters, by adding:

928.1 Installation. Vent free appliances shall not be installed unless first approved by the local gas utility company. A signed and dated letter of such approval shall be submitted to the Building Official before a permit can be issued.

CHAPTER 10, BOILERS, WATER HEATERS and PRESSURE VESSELS

Amend Section 1002.1 by changing the second sentence to read:

All water heaters shall be capable of being removed without first removing a permanent portion of the building structure or removing another appliance.

(Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008 Amended Ord. No. 2009-06, 07/18/2009; Amended Ord. No. 2011-12, July 19, 2011)

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

CHAPTER 4-07

INTERNATIONAL FUEL GAS CODE

Sections:

4-07-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

Section 4-07-001-0001 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the International Fuel Gas Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption.

(Amended Ord. 2011-12, July 19, 2011)

CHAPTER 3, GENERAL REGULATIONS

Amend Section 303.3 by deleting numbers 3 and 4.

Delete the following amendments to Chapter 3:

Amend Section 305.5. Private Garages by deleting in its entirety and replacing with:

Appliances shall not be installed in a location where subject to mechanical damage unless protected by approved barriers such as steel bollards filled with concrete, poured in place concrete curb, or installed a minimum 24 inches above the floor. Appliances not subject to mechanical damage shall be installed per Section 305.3

Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008;
Amended Ord. No. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, July 19, 2011)

CHAPTER 4, GAS PIPING IMSTALLATIONS

Amend Section 403.4.3. Copper and Brass, delete and replace with:

Copper and brass pipe, threaded copper, brass and aluminum piping shall not be used for gas piping installations within the City of Flagstaff.

Amend Section 406.4.1. Test Pressure, to read:

The test pressure to be used shall be no less than ten (10) pounds per square inch gauge pressure or six (6) inches of mercury measured with a manometer or slope gauge for single family dwellings or for systems with less than fifteen (15) pounds per square inch or fourteen (14) inches of water column. Welded piping and piping that carries gas at pressure in excess of fourteen (14) inches of water column or fifteen

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

(15) pounds per square inch shall be tested with no less than sixty (60) pounds per square inch. The test gauge shall not be more than twice the test pressure and in 1/10 pound increments or less.

Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008; Amended Ord. No. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, July 19, 2011)

Amend Section 406.4.2. Test Duration, to read:

Test duration shall be no less than fifteen (15) minutes for single family dwellings or systems with less than fifteen (15) pounds per square inch, fourteen (14) inches of water column. Welded piping, and systems with fifteen (15) pounds per square inch (14 inches of water column) or more shall be tested for no less than thirty (30) minutes.

CHAPTER 6, SPECIFIC APPLIANCES

Amend Section 614.5. Makeup air, by deleting the first sentence:

Installations exhausting more than 200 cfm (0.09 m³/s) shall be provided with makeup air.

Amend Section 621. Unvented Room Heaters, to be deleted in its entirety.

Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008; Amended Ord. No. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, July 19, 2011)

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

CHAPTER 4-08

INTERNATIONAL EXISTING BUILDING CODE

Sections:

4-08-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

4-08-001-0001 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the International Existing Building Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption.

CHAPTER 1, ADMINISTRATION

Amend Section 105.1.1. Annual Permit, by referencing City of Flagstaff 2011 Code Amendments to the International Building Code (IBC), 2006 Edition for requirements and compliance issues.

Amend Section 105.5. Expiration, by referencing City of Flagstaff 2011 Code Amendments to the International Residential Code (IRC), 2006~~12~~ Edition and International Building Code (IBC), 2006~~12~~ Edition for requirements and compliance issues on the duration of building permits.

CHAPTER 11, HISTORIC BUILDINGS

Revise the amendment to Section 101.2 as follows:

Amend Section 1101.2 Report by adding Section 1001.2.1 as follows:

Section 1101.2.1, Any changes to a structure in a historic district or to buildings listed on the City of Flagstaff Historic Registry shall be reviewed by the Community Investment Division, Historic Preservation representative, and Project Management Section, Development Services Division prior to issuing a building permit. The project may be referred to the Development Review Board and/or the Historic Preservation Commission for complete staff review by the board members.

(Amended Ord. No. 2011-12, July 19, 2011)

Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008; Amended Ord. No. 2009-06, 07/18/2009) (Amended Ord. No. 2011-12, July 19, 2011)

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

CHAPTER 4-09

INTERNATIONAL ENERGY CONSERVATION CODE

Sections:

4-09-001-0001 **AMENDMENTS, ADDITIONS, AND DELETIONS**

Section 4-09-001-0001 Amendments, Additions, and Deletions

The following provisions shall have the effect of either amending, adding to, or deleting from the International Energy Conservation Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption.

~~CHAPTER 4, RESIDENTIAL ENERGY EFFICIENCY~~

Amend Chapter 1 R101.2 by adding,

Exception: Group 2 occupancies defined as a Commercial Building by Section C202 shall have the option of complying under the residential provisions of the code, regardless of height. Once defined as such on the submittal documents, all components of the residential provisions shall be followed.

~~Add the following amendments to Chapter 4:~~

~~Amend Section 402.1.1 by adding:~~

~~Insulation values in 2x6 wall construction will remain the same at R-19.~~

~~Exception: Insulation values in existing 2x4 wall construction will remain at R-15 (high density).~~

(Amended Ord. No. 2011-12, July 19, 2011)

~~Amend Section 402.1.3.1 Window Fenestration~~

~~All new construction and replacement windows to have National Fenestration Rating Council (NFRC) total unit U-factor of 0.45 or less. Windows shall also be low E where practical (not recommended for southern exposures) or not being used for solar heat gain to fuel a solar massing device. (Amended Ord. No. 2011-12, July 19, 2011)~~

~~Amend Section 403 by adding:~~

~~Section 403.1.2 All new construction and replacement heating units (optional for hydronic in floor heating systems) will have Programmable thermostats.~~

**2011~~13~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

(Amended Ord. No. 2011-12, July 19, 2011)

Amend Section R402.2.1 Ceilings with attic spaces, the 5th sentence to read, "Similarly, R-30 shall be deemed to satisfy the requirement for R-49 over the wall top plate at the eaves.

Amend Section R402.4.1.2 Testing in its entirety.

Amend Section R403.75 by adding Exception: ~~Furnaces:~~ All furnaces installed in new construction shall be 90% condensing type furnaces.

Exception: Replacement furnaces are to be voluntarily 90% condensing type furnaces.

(Amended Ord. No. 2011-12, July 19, 2011)

~~Section 403.8 Water heaters shall either be insulated using exterior "jackets" or for "Energy Star" or energy conservation rated appliance that have pre-installed insulation. The insulation information must be available on the appliance installed at the time of final inspection. A minimum total insulation value of R-16 must be achieved. (This applies to new installation or replacements.)~~

~~Exception: The R-16 is not required when the existing room size prohibits the larger sized water heater and the Manufacturer's listing prohibits the use of insulation jackets.~~

~~(Amended Ord. No. 2011-12, July 19, 2011)~~

~~Section 403.9 A carbon monoxide (CO) detector shall be installed at the house/garage entry door and within each utility room where combustion appliances are used (sealed combustion appliances are exempt). A laundry room which uses gas appliances would require a detector.~~

~~Section 403.10 All hot water supply lines (both ½" and ¾") will be insulated with a minimum of R3.6 wrap insulation; or ½" foam covers. All joints between sections of insulation will be snugly butted together and wrapped with duct tape.~~

~~Section R403.11 All newly installed toilets must be "high efficiency toilets" (HET) units which have a maximum of 1.3 gallons for solids. (Special attention to this change needs to be addressed by suppliers and home improvement centers which stock the older style units).~~

~~Section 403.13 A construction waste reduction/reuse plan will be written and provided at the time of building permit submittal for new construction of all new commercial projects (apartments and condominiums), townhouse subdivisions and or single family detached builders who submit for more than 15 permits within a subdivision during any one calendar year. The plan must address construction waste to include cardboard, drywall, foam, metal, concrete, masonry and asphalt.~~

~~Section 403.14 All appliances, refrigerators, freezers, washers, dryers, cook stoves, that are supplied by the contractor shall be Energy Star.~~

**2011~~3~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

(Amended Ord. No. 2011-12, July 19, 2011)

~~Amend Chapter 4 by adding Section 405.~~

~~Section 405 Best Practices: The following items are recommended but not required in all new residential construction.~~

~~Section 405.1: Future Solar Water Heater. All new residential construction shall be built so as to accommodate a future installation of a solar water tank. Ceilings within the water heater compartment shall be a minimum 8 foot in height. Either insulated plumbing for standard inter connect to a roof mounted system will be pre-plumbed or adequately sized chase/access panel provided between the water heater compartment and the attic space will be installed.~~

~~Exception: Single story single family dwellings.~~

~~Section 405.2: Future Solar Photovoltaic. All new residential construction shall be supplied with a minimum 3/4 inch electrical conduit, with a pull wire, for the future installation of a solar photovoltaic system. The conduit shall be run from the inside of an accessible attic crawl space to the electrical service entrance section.~~

~~Section 405.3: Future Alternative Energy Systems. (Wind Turbines or geothermal): Working drawings prepared by the owner builder, contractor, drafts person or design professional should indicate possible location of expansion to accept alternative energy systems. This can be demonstration by indicating location of future accessory service panels for electrical systems or expansion capability of mechanical rooms for boilers and control systems.~~

~~Section 405.4: Voluntary Sustainability Programs. This allows the voluntary use of LEED, Coconino county sustainable checklist, National Green Building Standard, NAHB 2008, ICC 700-2008. This allows the builder or property owner to participate in sustainable programs that are not listed in the International Energy Conservation Code, 2006 edition.~~

~~Section 405.5: Jump Ducts. Provide an air balancing device between adjoining rooms to allow equalization of air pressure and temperatures between rooms.~~

~~Section 405.6: Exterior Wall Insulation. Contractor to increase R-19 to R-24 insulation using high density or spray applied foam insulation in exterior framed walls.~~

~~Section 405.7: Protection of Cold Water Supply Lines. Add R-19 insulation to water supply lines that are exposed in crawl spaces.~~

~~Section 405.6: Lighting. At the time of final inspection, the builder, contractor, or owner may install compact fluorescent lights (CFLs), other fluorescent, LEDs or other energy efficient lighting equivalent to or better than fluorescents in the high use areas for new construction. High use areas are typically defined as kitchens, living room, family room, and~~

**2011~~3~~ AMENDMENTS TO FLAGSTAFF CITY CODE,
TITLE 4, BUILDING CODE**

~~dining area. Specialty type lighting fixtures shall be of a low wattage or low voltage type.~~

~~Exception: Specialty lighting (chandeliers and under counter halogen lights) may be used in living rooms, dining rooms and kitchens. Recessed spot lights will use CFL's or LED's and reostats must be rated for their use.~~

~~Section 405.7: Wood floors in new construction may have an insulation value of R-30.~~

~~Section 405.8: Insulation in contact with the ground may be extruded polystyrene or other foam products other than expanded polystyrene.~~

~~Section 405.9: Hot water re-circulating pumps are to have a programmable timer, an on/off switch, and ¾ inch foam pipe insulation.~~

~~Section N1105.10 Dual Plumbing. All new residential single family detached units are "voluntarily" requested to install the piping only for dual plumbed for "gray water" disposal and conservation efforts. Access for future valving must be provided and the initial installation will be connected to sanitary sewer. The piping shall be installed in accordance Appendix C, Gray Water Recycling Systems, of the International Plumbing Code, 2009 Edition, and the regulations established by ADEQ. Reference Type 1 General Permit Best Management Practices for the 13 points of using gray water, at www.adeq.state.az.us or call at 1-800-234-5677.)~~

(Amended Ord. No. 2011-12, July 19, 2011)

~~CHAPTER 5 COMMERCIAL ENERGY EFFICIENCY~~

Amend Chapter 1 Section C101.2 by adding,

Exception: Group 2 occupancies defined as a Commercial Building by Section C202 shall have the option of complying under the residential provisions of the code, regardless of height. Once defined as such on the submittal documents, all components of the residential provisions shall be followed.

Amend ~~Chapter 5~~ by deleting Sections ~~C54~~05.6.1 through 505.6.2 by adding an exception, and replace with:

Exception: City of Flagstaff has an exterior lighting permit requirement, enforces a "Dark Sky Ordinance" and requires review by zoning enforcement and the Project Management Section prior to installation. Lumen calculations are required and amounts are limited by property size and use.

(Amended Ord. No. 2007-47, 12/18/2007; Amended Ord. 2007-48, 01/15/2008; Amended Ord. No. 2009-06, 07/18/2009; Amended Ord. No. 2011-12, July 19, 2011)

2012 IECC Cost Effectiveness Analysis

Prepared for
National Association of Home Builders

Prepared by
NAHB Research Center
400 Prince George's Boulevard
Upper Marlboro, MD 20774-5733

www.nahbrc.com

301.245.3000

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Objective

The objective of this analysis is to quantify the incremental construction cost, energy cost savings, and percent energy cost savings associated with constructing a house compliant with the 2012 IECC relative to a 2006 IECC baseline. A methodology established by the NAHB Research Center was used to determine the incremental energy cost savings. A cost effectiveness analysis was also performed using both the 2006 and 2009 IECC as a baseline to illustrate incremental paybacks in an analysis with different baselines.

Background

A strong push was made by many advocacy groups, including the U. S. Department of Energy (DOE), to increase the stringency of the 2012 International Energy Conservation Code (IECC) to achieve a 30 percent energy savings relative to the 2006 IECC. This effort resulted in a number of major changes which impact both energy savings and construction costs for residential construction.

Energy Evaluation Methodology

A methodology was developed by the NAHB Research Center (NAHB Research Center 2012-1) to calculate energy savings with 2006 IECC as the primary baseline. This methodology defines a *Standard Reference House*, including the building configuration and energy performance parameters. In addition, a calculation formula was included to determine a “percent energy savings” when comparing editions of the energy code. Energy performance parameters from the IECC were used where available. For parameters not defined in the IECC, DOE’s Building America Benchmark (Hendron 2008) protocols were used.

Standard Reference House

The building geometry (Figure 1) used in this analysis is documented in the methodology paper and was developed using the NAHB Research Center’s 2008 and 2009 Annual Builder Practices Survey (ABPS) results. The parameters represent the average (mean) values from the ABPS for building areas and features not dictated by the 2006 IECC. Table 1 lists floor, attic, wall, and window areas used in the *Standard Reference House*.

Table 1. Average Wall and Floor Square Footage

	Annual Builder Practices Survey (ABPS)	Standard Reference House
1 st Floor CFA	1,780	1,776
2 nd Floor CFA	572	576
Total CFA (w/o Conditioned Basement)	2,352	2,352
Slab/Basement/Crawl Floor Area		1,776
Total CFA (with Conditioned Basement)		4,128
Attic Floor Area		1,776
1 st Floor Wall Area	2,006	1,764
2 nd Floor Wall Area	586	816
Total Above-Grade Wall Area	2,592	2,580
Basement Wall Area (8ft wall height)		1,568
Crawlspace Wall Area (4ft wall height)		784
Window Area (18%/15%)		464/387

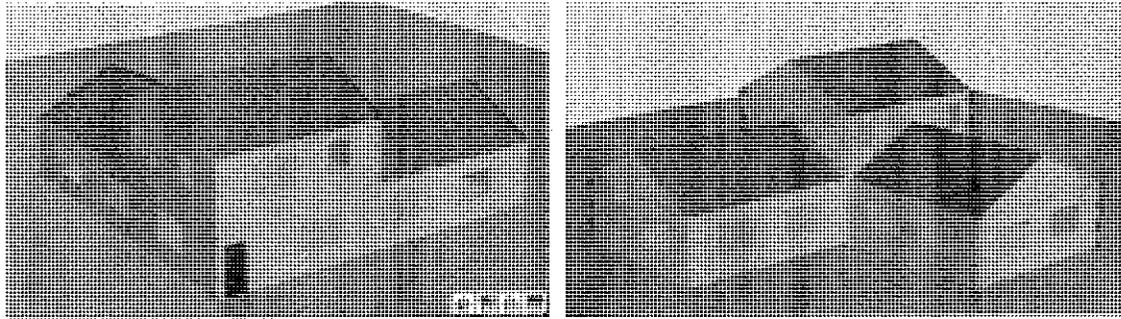


Figure 1: Simulation Model of Standard Reference House

Representative Cities

Eight cities (Table 2) representing each of the DOE Climate Zones (Figure 2) were selected to quantify energy savings for their respective climates.

Table 2: Representative Climate Zone Cities

Climate Zone	Moisture Region	State	City	HDD(65)	CDD(65)
1	Moist	Florida	Miami	120	4,396
2	Dry	Arizona	Phoenix	977	4,790
3	Moist	Tennessee	Memphis	2,851	2,221
4	Moist	Maryland	Baltimore	4,460	1,314
5	Moist	Illinois	Chicago	6,174	911
6	Dry	Montana	Helena	7,474	353
7	N/A	Minnesota	Duluth	9,371	185
8	N/A	Alaska	Fairbanks	12,818	49

Note: HDD and CDD data from TMY3 Dataset

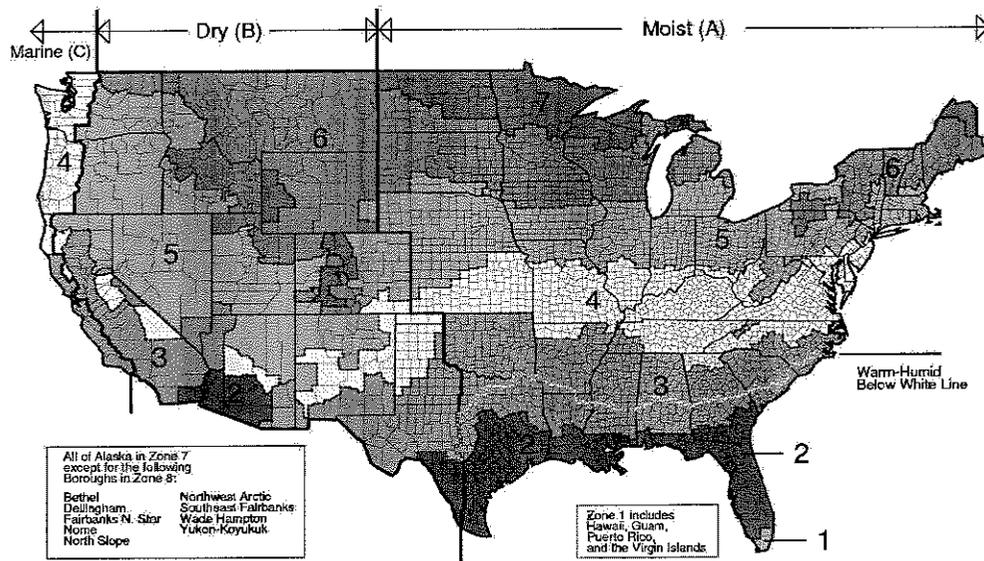


Figure 2: DOE Climate Zone Map

Weighted Averaging

Weighted averaging was applied both within and across climate zones. Within climate zones, wall construction factors for light-framed and mass walls, as well as various foundation types (slab, crawlspaces, and basements), were applied based on how new homes are constructed as determined by the NAHB Research Center's Annual Builder Practices Survey (ABPS). Once the savings within a climate zone were determined, a weighted calculation according to building starts (Briggs 2002) for each climate zone was performed in order to obtain a national average.

Changes and Cost Impacts of the 2012 IECC

A number of major changes were made from the 2006 IECC to the 2012 IECC. For the first time, performance testing for whole building tightness is now mandated in the IECC. Lighting requirements were added to the scope of the IECC in 2009 and further increased in 2012. The largest cost increases have been due to the changes in wall insulation requirements which affected six of the eight climate zones. Also added was a prescriptive requirement mandating insulation on the hot water pipes for specific locations and on all pipes exceeding specified lengths.

Appendix A includes the baseline 2006 IECC prescriptive table and Appendices B and C contain the 2009 and 2012 IECC prescriptive tables, respectively, with highlighted changes from the 2006 edition. Table 3 shows the incremental cost for changes made between the 2006 and 2012 IECC specified by climate zone. All costs listed below are based on a unit basis and totals for the *Standard Reference House*. Costs from the ASHRAE RP-1481 have been escalated for inflation using RS Means adjustment factors.

Construction Costs Associated with 2012 IECC Changes

Each climate zone has different requirements; consequently, the resulting incremental construction costs to comply with the 2012 IECC vary between climate zones. The cost increases (Table 4) range from a high of \$8,871 in Climate Zone 3 to a low of \$4,499 in Climate Zone 2, with a national weighted average cost increase of \$7,034. Complete cost analysis details on the individual measures for each climate zone can be found in Appendix D.

Calculated Energy Usage

Table 4 summarizes the calculated energy usage for a house built to the minimum requirements of both the 2006 and 2012 IECC. The following nomenclature is used to categorize the energy use:

TEU_{2006} = Total Energy Usage using the 2006 IECC

TEU_{2012} = Total Energy Usage using the 2012 IECC

$HCWU_{2006}$ = Heating, Cooling, and Water heating energy Usage using the 2006 IECC

Energy cost savings are calculated using the Energy Information Administration's calendar year 2011 consumer price data for electricity (\$0.118/kWh) and natural gas (\$1.08/therm).

It is necessary to convert electric (kWh) and natural gas (Therm) energy usage into Btu's in order to determine the site and source energy usage. The site to source multipliers to obtain source Btu's are 3.365 for electricity and 1.092 for natural gas (Hendron 2008).

Table 3: Itemized 2012 IECC Incremental Construction Cost over 2006 IECC

Affected Climate Zone(s)	Item	Code Requirement		Cost			Source
		2006 IECC	2012 IECC	Unit Cost	Unit	Per House	
1,2	Air Sealing	N/R	5 ACH 50	\$ 0.26	sq ft floor	\$ 610	ASHRAE 1481 RP
3,4,5,6,7,8	Air Sealing	N/R	3 ACH 50	\$ 0.41	sq ft floor	\$ 955	ASHRAE 1481 RP
ALL	Blower Door Testing	N/R	Required	\$ 165	per house	\$ 165	Southface
2,3	Ceiling Insulation	R-30	R-38	\$ 0.25	sq ft attic	\$ 441	ASHRAE 1481 RP
4,5	Ceiling Insulation	R-38	R-49	\$ 0.53	sq ft attic	\$ 941	ASHRAE 1481 RP
ALL	High Efficacy Lighting	10% (base)	75%	\$ 1.00	% cfl	\$ 65	Local Survey
ALL	Duct Sealing	15% (base)	4cfm/100sf	\$ 800	per house	\$ 800	Building America
ALL	Duct Testing	N/R	Required	\$ 165	per house	\$ 165	Southface
7,8	Floor Insulation	R-30	R-38	\$ 0.72	sq ft floor	\$ 1,282	ASHRAE 1481 RP
1, 2	Mass Wall	R-3	R-4	\$ 0.10	sq ft wall	\$ 258	ASHRAE 1481 RP
5	Mass Wall	R-13	R-17	\$ 0.41	sq ft wall	\$ 1,060	ASHRAE 1481 RP
ALL	Mechanical Ventilation	N/R	Required	\$ 382	per house	\$ 382	Russell (2005)
ALL	Prog Thermostat	N/R	Required	\$ 25	per house	\$ 25	Local Survey
ALL	R-3 Plumbing	N/R	R-3	\$ 1,034	per house	\$ 1,034	NAHB RC (2010)
3,4	Wall- Above Grade	R-13	R-20	\$ 1.33	sq ft AG wall	\$ 3,433	ASHRAE 1481 RP
5	Wall- Above Grade	R-19	R-20	\$ 0.20	sq ft AG wall	\$ 516	ASHRAE 1481 RP
6	Wall- Above Grade	R-19	R-20+5	\$ 1.52	sq ft AG wall	\$ 3,927	ASHRAE 1481 RP
7,8	Wall- Above Grade	R-21	R-20+5	\$ 1.32	sq ft AG wall	\$ 3,403	ASHRAE 1481 RP
3 (northern 1/2)	Wall- Basement	N/R	R-10	\$ 1.87	sq ft BM wall	\$ 2,932	ASHRAE 1481 RP
5,6,7,8	Wall- Basement	R-10	R-15	\$ 1.05	sq ft BM wall	\$ 1,644	ASHRAE 1481 RP
5,6,7,8	Wall- Crawl Space	R-10	R-15	\$ 1.05	sq ft CS wall	\$ 822	ASHRAE 1481 RP
1	Window	U-1.2	U-0.5	\$ 2.86	sq ft window	\$ 1,108	ASHRAE 90.1 ENV
	SHGC	0.40	0.25				
2	Window	U-0.75	U-0.4	\$ 2.00	sq ft window	\$ 774	Paquette (2010)
	SHGC	0.40	0.25				
3	Window	U-0.65	U-0.35	\$ 2.50	sq ft window	\$ 968	Paquette (2010)
	SHGC	0.4	0.25				
4	Window	U-0.4	U-0.35	\$ 0.50	sq ft window	\$ 194	Paquette (2010)
	SHGC	NR	0.40				
5,6,7,8	Window	U-0.35	U-0.32	\$ 0.45	sq ft window	\$ 174	ASHRAE 90.1 ENV
	SHGC	NR	NR				

Table 4: 2012 IECC Incremental Construction Cost over 2006 IECC

Climate Zone/City	Incremental Construction Cost
1 Miami	\$4,521
2 Phoenix	\$4,499
3 Memphis	\$8,871
4 Baltimore	\$8,072
5 Chicago	\$5,872
6 Helena	\$8,734
7 Duluth	\$8,403
8 Fairbanks	\$8,403
National Weighted Average	\$7,034

Table 5: Annual Energy Usage for House Built to the 2006 and 2012 IECC

Location		kWh	Therms	Site MBtu	Source MBtu	Energy Cost
Zone 1 Miami	TEU ₂₀₀₆	19,267	25	68.2	223.9	\$ 2,300
	TEU ₂₀₁₂	15,296	24	54.6	178.2	\$ 1,831
	HCWU ₂₀₀₆	10,919	23	39.6	127.9	\$ 1,313
Zone 2 Phoenix	TEU ₂₀₀₆	20,782	118	82.7	251.5	\$ 2,580
	TEU ₂₀₁₂	16,292	94	65.0	197.3	\$ 2,024
	HCWU ₂₀₀₆	12,289	115	53.4	153.6	\$ 1,574
Zone 3 Memphis	TEU ₂₀₀₆	18,855	440	108.3	264.5	\$ 2,700
	TEU ₂₀₁₂	14,049	287	76.6	192.6	\$ 1,967
	HCWU ₂₀₀₆	10,415	434	79.0	167.0	\$ 1,698
Zone 4 Baltimore	TEU ₂₀₀₆	16,527	766	133.0	273.4	\$ 2,777
	TEU ₂₀₁₂	13,302	537	99.1	211.4	\$ 2,150
	HCWU ₂₀₀₆	7,340	757	100.8	167.0	\$ 1,684
Zone 5 Chicago	TEU ₂₀₀₆	15,413	1,224	175.0	310.6	\$ 3,141
	TEU ₂₀₁₂	12,436	875	129.9	238.3	\$ 2,412
	HCWU ₂₀₀₆	6,051	1,222	142.9	202.9	\$ 2,034
Zone 6 Helena	TEU ₂₀₀₆	12,316	1,496	191.6	304.7	\$ 3,069
	TEU ₂₀₁₂	10,251	1,085	143.5	236.2	\$ 2,382
	HCWU ₂₀₀₆	2,318	1,482	156.1	188.5	\$ 1,874
Zone 7 Duluth	TEU ₂₀₀₆	11,238	2,271	265.4	377.0	\$ 3,779
	TEU ₂₀₁₂	9,394	1,567	188.8	279.0	\$ 2,801
	HCWU ₂₀₀₆	1,261	2,257	230.0	260.9	\$ 2,586
Zone 8 Fairbanks	TEU ₂₀₀₆	11,432	2,999	338.9	458.8	\$ 4,588
	TEU ₂₀₁₂	9,547	2,112	243.8	340.3	\$ 3,408
	HCWU ₂₀₀₆	1,455	2,985	303.5	342.7	\$ 3,396

		kWh	Therms	Site MBtu	Source MBtu	Cost
National Weighted Average	TEU ₂₀₀₆	17,499	715	131.2	279.0	\$ 2,837
	TEU ₂₀₁₂	13,723	505	97.3	212.7	\$ 2,164
	HCWU ₂₀₀₆	8,537	710	100.1	175.6	\$ 1,774

Calculated Energy Savings

Energy savings are presented in three formats: 1) percent of site energy savings; 2) percent of source energy savings; and 3) percent of energy cost savings. Percent savings in Table 6 were calculated using a formula consistent with the PNNL/DOE presentation in various forums including the 2010 RESNET Conference (Taylor 2010):

$$\% \text{ Savings} = 100 * (\text{TEU}_{2006} - \text{TEU}_{2012}) / \text{HCWU}_{2006}$$

Table 6: 2012 IECC Energy Savings above the 2006 IECC

Climate Zone	Site Energy Savings	Source Energy Savings	Energy Cost Savings
1	34.5%	35.8%	35.8%
2	33.3%	35.3%	35.3%
3	40.1%	43.0%	43.1%
4	33.6%	37.1%	37.2%
5	31.6%	35.6%	35.8%
6	30.8%	36.3%	36.6%
7	33.3%	37.6%	37.8%
8	31.3%	34.6%	34.8%
National Weighted Average	33.9%	37.8%	37.9%

Cost Effectiveness

While various cost effectiveness evaluation criteria can be used, this analysis employs the simple payback method. The simple payback analysis is easy to understand and it does not make future assumptions such as general inflation rates, life expectancy of building components, or fuel escalation rates. Table 6 summarizes the energy cost savings, construction cost, and resulting simple payback for each climate zone by climate zone and a weighted national average.

The simple paybacks in Table 7 are based on an overall average for all changes in the 2012 IECC relative to a 2006 IECC baseline. Consequently, some changes result in shorter paybacks than the average simple payback and some in longer paybacks. This analysis did not calculate the individual payback period for each modification to the 2012 IECC.

Table 7: 2012 IECC Cost Effectiveness Relative to 2006 IECC

Climate Zone	Annual Energy Savings	Incremental Construction Cost	Simple Payback (yrs)
1	\$470	\$4,521	9.6
2	\$556	\$4,499	8.1
3	\$732	\$8,871	12.1
4	\$627	\$8,072	12.9
5	\$728	\$5,872	8.1
6	\$687	\$8,734	12.7
7	\$978	\$8,403	8.6
8	\$1,180	\$8,403	7.1
National Weighted Average	\$673	\$7,034	10.4

Cost Effectiveness Using a 2009 IECC Baseline

The above analysis focused on construction costs and energy reduction associated with the 2012 IECC relative to a 2006 IECC baseline; however, it is important to understand that cost effectiveness decreases as energy requirements become more stringent, presuming the codes advance in a rational manner. Decreasing cost effectiveness becomes evident when comparing a defined code edition to varying baselines.

An analysis was performed using the same methodology comparing the 2006 IECC to the 2009 IECC (NAHB Research Center 2012-2). When code comparison results of the 2009 IECC analysis are compared with this analysis; the resulting difference in both energy savings and incremental cost are listed in Table 8. A national average incremental simple payback of 13.3 years was calculated when going from the 2009 IECC to the 2012 IECC as compared to the 10.4 years when using the 2006 IECC baseline, thus decreasing the cost effectiveness when evaluating the payback over the latest code cycle.

Table 8: 2012 IECC Cost Effectiveness Relative to 2009 IECC

Climate Zone	Annual Energy Savings	Incremental Construction Cost	Simple Payback (yrs)
1	\$206	\$3,224	15.7
2	\$294	\$3,330	11.3
3	\$470	\$7,203	15.3
4	\$410	\$7,091	17.3
5	\$505	\$4,653	9.2
6	\$397	\$6,399	16.1
7	\$609	\$6,465	10.6
8	\$725	\$6,465	8.9
National Weighted Average	\$427	\$5,668	13.3

Conclusions

The energy savings calculation methodology used in this analysis provides detailed incremental construction cost, energy cost savings, percent energy savings, and a simple payback cost effectiveness analysis. The national average percent energy cost savings for the 2012 IECC over the 2006 IECC baseline is 37.9 percent (site energy savings 33.9 percent; source energy savings 37.8 percent). This result is significantly higher than many estimates which simply accept the 2012 IECC as 30 percent more efficient than the 2006 IECC.

The additional cost to construct to the 2012 IECC relative to the 2006 IECC is \$7,034 with the majority of the increase (\$5,668) associated with the changes between the 2009 and 2012 versions of the IECC.

Incremental simple payback from the 2006 to the 2012 IECC is 10.4 years; however, if the analysis only considers changes made from the 2009 edition of the IECC, the payback for adopting the 2012 IECC increases to 13.3 years.

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Appendix A: Prescriptive Requirements for 2006 IECC

2006 International Energy Conservation Code

Climate Zone	Fenestration U-Factor	Skylight U-Factor	Glazed ^b Fenestration SHGC	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement ^c Wall R-Value	Slab ^d R-Value & Depth	Crawl ^e Space Wall R-Value
1	1.20	0.75	0.40	30	13	3	13	0	0	0
2	0.75	0.75	0.40	30	13	4	13	0	0	0
3	0.65	0.65	0.40 ^e	30	13	5	19	0	0	5/13
4 Less Marine	0.40	0.60	NR	38	13	5	19	10/13	10/2	10/13
5 & 4 Marine	0.35	0.60	NR	38	19 or 13+5 ^g	13	30 ^f	10/13	10/2	10/13
6	0.35	0.60	NR	49	19 or 13+5 ^g	15	30 ^f	10/13	10/2	10/13
7 & 8	0.35	0.60	NR	49	21	19	30 ^f	10/13	10/2	10/13

R-Values are mins. U-Factors are max. R19 permitted in 2x6 cavity

^b Applies to all Fenestration

^c First is continuous, second is framing cavity

^d R-5 shall be added to slab edge for heated slabs

^e No SHGC for Marine zones

^f Or insulation to fill the framing cavity, R-19 minimum

^g First is cavity, second is sheathing

Appendix B: Prescriptive Requirements for 2009 IECC

2009 International Energy Conservation Code

Climate Zone	Fenestration U-Factor	Skylight U-Factor	Glazed Fenestration SHGC	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Slab R-Value & Depth	Crawl Space Wall R-Value
1	1.20	0.75	0.30	30	13	3/4	13	0	0	0
2	0.65 ^j	0.75	0.30	30	13	4/6	13	0	0	0
3	0.50 ^j	0.65	0.30	30	13	5/8	19	5/13 ^f	0	5/13
4 Less Marine	0.35	0.60	NR	38	13	5/10	19	10/13	10/2	10/13
5 & 4 Marine	0.35	0.60	NR	38	20 or 13+5 ^h	13/17	30 ^g	10/13	10/2	10/13
6	0.35	0.60	NR	49	20 or 13+5 ^h	15/19	30 ^g	15/19	10/2	10/13
7 & 8	0.35	0.60	NR	49	21	19/21	38 ^g	15/19	10/2	10/13

Highlighted cells represent modifications to the 2006 IECC

- b Applies to all Fenestration
- c First is continuous, second is framing cavity
- d R-5 shall be added to slab edge for heated slabs
- e No SHGC for Marine zones
- f Not required in warm humid locations per table 301.1
- g Or insulation to fill the framing cavity, R-19 minimum
- h First is cavity, second is sheathing
- i Second value applies when more than half the insulation is on the interior
- j For Impact Rated - U-Factors shall be 0.75 for zone 2 and 0.65 for 3

Appendix C: Prescriptive Requirements for 2012 IECC

2012 International Energy Conservation Code

Climate Zone	Fenestration U-Factor ^b	Skylight U-Factor ^b	Glazed Fenestration SHGC ^{b,e}	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Slab ^d R-Value & Depth	Crawl Space Wall R-Value
1	0.50	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13+5 ^h	8/13	19	5/13 ^f	0	5/13
4 Less Marine	0.35	0.55	0.40	49	20 or 13+5 ^h	8/13	19	10/13	10/2	10/13
5 & 4 Marine	0.32	0.55	NR	49	20 or 13+5 ^h	13/17	30 ^g	15/19	10/2	15/19
6	0.32	0.55	NR	49	20+5 or 13+10 ^h	15/20	30 ^g	15/19	10/4	15/19
7 & 8	0.32	0.55	NR	49	20+5 or 13+10 ^h	19/21	38 ^g	15/19	10/4	15/19

2009 Alteration
2012 Alteration

- b Applies to all Fenestration
- c First is continuous, second is framing cavity
- d R-5 shall be added to slab edge for heated slabs
- e No SHGC for Marine zones
- f Not required in warm humid locations per table 301.1
- g Or Insulation to fill the framing cavity, R-19 minimum
- h First is cavity, second is sheathing
- i Second value applies when more than half the insulation is on the interior
- j For Impact-Rated — U-Factors shall be 0.75 for zone 2 and 0.65 for 3

Appendix D: Itemized Climate-Specific Incremental Construction Costs 2006-2012 IECC

Climate Zone 1, Light Frame and Mass Walls

Framed Walls	Cost		Code Requirement	Foundation Distribution				Cost Source
	Unit Cost	Unit		0% Conditioned Basement	0% Conditioned Crawlspace	90% Slab on Grade	0% Unconditioned Basement	
Window	2.86	sq ft window	2006 IECC: 1.20 2012 IECC: 0.50			\$ 1,108		\$ 1,108 ASHRAE 90.1 Env
SHGC			0.40					
Ceilings			0.035					
Frame Walls			0.082					
Mass Wall			N/A					
Floors			0.064					
Basement Walls			0.360					
Slab			0					
Crawl Wall			0.477					
CFL	1.00	% cfl	10% (base)			\$ 65		\$ 65 Local Survey
Ducts	800	per house	15% (base) 4cfm/100sf			\$ 800		\$ 800 Building America
Blower Door	165	per house	N/R			\$ 165		\$ 165 Southface
Air Sealing	0.26	sq ft floor	5 ACH 50			\$ 610		\$ 610 ASHRAE 1481 RP
Mechanical Ventilation	382	per house	Required			\$ 382		\$ 382 Russell (2005)
Duct Blaster	165	per house	Required			\$ 165		\$ 165 Southface
R-3 Plumbing	1,034	per house	R-3			\$ 1,034		\$ 1,034 NAHB FC (2010)
Prog Thermostat	25	per house	Required			\$ 25		\$ 25 Local Survey
Incremental Cost						\$ 4,354		\$ 4,354

Mass Walls	Cost		Code Requirement	Foundation Distribution				Cost Source
	Unit Cost	Unit		0% Conditioned Basement	0% Conditioned Crawlspace	90% Slab on Grade	0% Unconditioned Basement	
Window	2.86	sq ft window	2006 IECC: 1.20 2012 IECC: 0.50			\$ 1,108		\$ 1,108 ASHRAE 90.1 Env
SHGC			0.40					
Ceilings			0.035					
Frame Walls			N/A					
Mass Wall			R-3			\$ 258		\$ 258 ASHRAE 1481 RP
Floors			0.064					
Basement Walls			0.360					
Slab			0					
CFL	1.00	% cfl	10% (base)			\$ 65		\$ 65 Local Survey
Ducts	800	per house	15% (base) 4cfm/100sf			\$ 800		\$ 800 Building America
Blower Door	165	per house	N/R			\$ 165		\$ 165 Southface
Air Sealing	0.26	sq ft floor	5 ACH 50			\$ 610		\$ 610 ASHRAE 1481 RP
Mechanical Ventilation	382	per house	Required			\$ 382		\$ 382 Russell (2005)
Duct Blaster	165	per house	Required			\$ 165		\$ 165 Southface
R-3 Plumbing	1,034	per house	R-3			\$ 1,034		\$ 1,034 NAHB FC (2010)
Prog Thermostat	25	per house	Required			\$ 25		\$ 25 Local Survey
Incremental Cost						\$ 4,612		\$ 4,612

Climate Zone 1 Weighted Average Incremental Cost = \$ 4,521

Climate Zone 2, Light Frame and Mass Walls

Framed Walls	Cost		Code Requirement	Foundation Distribution				Cost Source	
	Unit Cost	Unit		0% Conditioned Basement	0% Conditioned Crawlspace	90% Slab on Grade	0% Unconditioned Basement		10% Vented Crawlspace
Window	\$ 2.00	sq ft window	2006 IECC 0.75			\$ 774		\$ 774	Paquette (2010)
U-Factor SHGC			0.40						
Ceilings	\$ 0.25	sq ft attic	0.035			\$ 441		\$ 441	ASHRAE 1481 RP
Frame Walls			0.082						
Mass Wall			N/A						
Floors			0.064						
Bsmt Walls			0.360						
Slab			0						
Crawl Wall			0.477						
CFL	\$ 1.00	% cfl	10%			\$ 65		\$ 65	Local Survey
Ducts	\$ 800	per house	15.0% 4cfm/100sf			\$ 800		\$ 800	Building America
Blower Door	\$ 165	per house	N/R			\$ 165		\$ 165	Southface
Air Sealing	\$ 0.26	sq ft floor	5 ACH 50			\$ 610		\$ 610	ASHRAE 1481 RP
Mechanical Ventilation	\$ 382	per house	Required			\$ 382		\$ 382	Russell (2005)
Duct Blaster	\$ 165	per house	Required			\$ 165		\$ 165	Southface
R-3 Plumbing	\$ 1,034	per house	N/R			\$ 1,034		\$ 1,034	NAHB RC (2010)
Prog Thermostat	\$ 25	per house	Required			\$ 25		\$ 25	Local Survey
Incremental Cost						\$ 4,460		\$ 4,460	\$ 4,460

Mass Walls	Cost		Code Requirement	Foundation Distribution				Cost Source	
	Unit Cost	Unit		0% Conditioned Basement	0% Conditioned Crawlspace	90% Slab on Grade	0% Unconditioned Basement		10% Vented Crawlspace
Window	\$ 2.00	sq ft window	2006 IECC 0.75			\$ 774		\$ 774	Paquette (2010)
U-Factor SHGC			0.40						
Ceilings	\$ 0.25	sq ft attic	0.035			\$ 441		\$ 441	ASHRAE 1481 RP
Frame Walls			N/A						
Mass Wall	\$ 0.10	sq ft wall	R-3			\$ 258		\$ 258	ASHRAE 1481 RP
Floors			0.064						
Bsmt Walls			0.360						
Slab			0						
Crawl Wall			0.477						
CFL	\$ 1.00	% cfl	10% (est)			\$ 65		\$ 65	Local Survey
Ducts	\$ 800	per house	15.0% 4cfm/100sf			\$ 800		\$ 800	Building America
Blower Door	\$ 165	per house	N/R			\$ 165		\$ 165	Southface
Air Sealing	\$ 0.26	sq ft floor	5 ACH 50			\$ 610		\$ 610	ASHRAE 1481 RP
Mechanical Ventilation	\$ 382	per house	Required			\$ 382		\$ 382	Russell (2005)
Duct Blaster	\$ 165	per house	Required			\$ 165		\$ 165	Southface
R-3 Plumbing	\$ 1,034	per house	N/R			\$ 1,034		\$ 1,034	NAHB RC (2010)
Prog Thermostat	\$ 25	per house	Required			\$ 25		\$ 25	Local Survey
Incremental Cost						\$ 4,718		\$ 4,718	\$ 4,718

Climate Zone 2 Weighted Average Incremental Cost= \$ 4,499

Climate Zones 3 and 4

Framed Walls	Unit Cost	Unit	Cost	Code Requirement				Foundation Distribution				Cost Source			
				2006 IECC	2012 IECC	0% Conditioned Basement	0% Conditioned Crawlspace	75% Slab on Grade	15% Unconditioned Basement	10% Vented Crawlspace					
Window															
U-Factor	\$ 2.50	sq ft window		0.65										\$ 968	Paquette (2010)
SHGC				0.40 e	0.35										
Ceilings	\$ 0.25	sq ft attic		0.035	0.030									\$ 441	ASHRAE 1481 RP
Frame Walls	\$ 1.33	sq ft wall		0.062	0.057									\$ 3,433	ASHRAE 1481 RP
Mass Wall				N/A	N/A										
Floors				0.047	0.047										
Basmt Walls	\$1.87	sq ft base w/		0.360	0.091									\$ 2,932	ASHRAE 1481 RP
Slab				0	0										
Crawl Wall				0.138	0.136										
CFI	\$ 1.00	% cfl		10% (base)	75%									\$ 65	Local Survey
Ducts	\$ 800	per house		15% (base)	4cfm/100sf									\$ 800	Building America
Blower Door	\$ 165	per house		N/R	Required									\$ 165	Southface
Mechanical Ventilation	\$ 382	per house		N/R	Required									\$ 382	Russell (2005)
Air Sealing	\$ 0.41	sq ft floor		N/R	3 ACH 50									\$ 955	ASHRAE 1481 RP
Duct Blaster	\$ 165	per house		N/R	Required									\$ 165	Southface
R-3 Plumbing	\$ 1,034	per house		N/R	R-3									\$ 1,034	NAHB RC (2010)
Prog Thermostat	\$ 25	per house		N/R	Required									\$ 25	Local Survey
Incremental Cost														\$ 8,431	\$ 8,431

Climate Zone 3 Weighted Average Incremental Cost= \$ 8,971

Framed Walls	Unit Cost	Unit	Cost	Code Requirement				Foundation Distribution				Cost Source				
				2006 IECC	2012 IECC	35% Conditioned Basement	0% Conditioned Crawlspace	25% Slab on Grade	20% Unconditioned Basement	20% Vented Crawlspace						
Window																
U-Factor	\$ 0.50	sq ft window		N/R	0.40	0.35									\$ 194	Paquette (2010)
SHGC					0.40	0.40										
Ceilings	\$ 0.53	sq ft attic		0.030	0.026										\$ 941	ASHRAE 1481 RP
Frame Walls	\$ 1.33	sq ft wall		0.062	0.057										\$ 3,433	ASHRAE 1481 RP
Mass Wall				N/A	N/A											
Floors				0.047	0.047											
Basmt Walls	\$0.59	sq ft base w/		0.059	0.059											
Slab				10'2	10'2											
Crawl Wall				0.065	0.065											
CFL	\$ 1.00	% cfl		10% (base)	75%									\$ 65	Local Survey	
Ducts	\$ 800	per house		15% (base)	4cfm/100sf									\$ 800	Building America	
Blower Door	\$ 165	per house		N/R	Required									\$ 165	Southface	
Mechanical Ventilation	\$ 382	per house		N/R	Required									\$ 382	Russell (2005)	
Air Sealing	\$ 0.41	sq ft floor		N/R	3 ACH 50									\$ 955	ASHRAE 1481 RP	
Duct Blaster	\$ 165	per house		N/R	Required									\$ 165	Southface	
R-3 Plumbing	\$ 1,034	per house		N/R	R-3									\$ 1,034	NAHB RC (2010)	
Prog Thermostat	\$ 25	per house		N/R	Required									\$ 25	Local Survey	
Incremental Cost														\$ 7,913	\$ 8,157	

Climate Zone 4 Weighted Average Incremental Cost= \$ 8,072

Climate Zones 6, 7 and 8

Framed Walls	Cost		Code Requirement		75% Conditioned Basement		5% Conditioned Crawlspace		5% Slab on Grade		10% Unconditioned Basement		5% Vented Crawlspace		Cost Source	
	Unit Cost	Unit	2006 IECC	2012 IECC	Conditioned Basement	Conditioned Crawlspace	Slab on Grade	Unconditioned Basement	Vented Crawlspace	Cost Source						
Window	\$ 0.45	sq ft window	0.35	N/R	\$ 174	\$ 174	\$ 174	\$ 174	\$ 174	ASHRAE 90.1 ETV						
U-Factor SHGC																
Cellings			0.026	0.026												
Frame Walls	\$ 1.52	sq ft of wall	0.060	0.048	\$ 3,927	\$ 3,927	\$ 3,927	\$ 3,927	\$ 3,927	ASHRAE 1481 RP						
Mass Wall			N/A	N/A												
Floors			0.033	0.033												
Bsmt Walls	\$ 1.05	sq ft base w	0.059	0.050	\$ 1,644											
Slab			10/4	10/4												
Crawl Wall	\$ 1.05	sq ft base w	0.065	0.055	\$ 822	\$ 65	\$ 65	\$ 65	\$ 65	ASHRAE 1481 RP						
CFL	\$ 1.00	% cfl	10% (base)	75%	NR	NR	NR	NR	NR	Local Survey						
Ducts	\$ 800	per house	15% (base)	4cft/100st	\$ 165	\$ 165	\$ 165	\$ 165	\$ 165	Building America						
Blower Door	\$ 165	per house	N/R	Required	\$ 382	\$ 382	\$ 382	\$ 382	\$ 382	Southface						
Mechanical Ventilator	\$ 382	per house	N/R	Required	\$ 955	\$ 955	\$ 955	\$ 955	\$ 955	Russell (2005)						
Air Sealing	\$ 0.41	sq ft floor	N/R	3 ACH 50	\$ 1,676	NR	\$ 165	\$ 165	\$ 165	ASHRAE 1481 RP						
Duct Blaster	\$ 165	per house	N/R	Required	\$ 1,034	\$ 1,034	\$ 1,034	\$ 1,034	\$ 1,034	Southface						
R-3 Plumbing	\$ 1,034	per house	N/R	R-3	\$ 25	\$ 25	\$ 25	\$ 25	\$ 25	NAHB RC (2010)						
Prog Thermostat	\$ 25	per house	N/R	Required	\$ 9,091	\$ 7,548	\$ 7,691	\$ 7,691	\$ 7,691	Local Survey						
Incremental Cost																\$ 8,734

Climate Zone 6 Weighted Average Incremental Cost = \$ 8,734

Framed Walls	Cost		Code Requirement		75% Conditioned Basement		5% Conditioned Crawlspace		5% Slab on Grade		10% Unconditioned Basement		5% Vented Crawlspace		Cost Source	
	Unit Cost	Unit	2006 IECC	2012 IECC	Conditioned Basement	Conditioned Crawlspace	Slab on Grade	Unconditioned Basement	Vented Crawlspace	Cost Source						
Window	\$ 0.45	sq ft window	0.35	N/R	\$ 174	\$ 174	\$ 174	\$ 174	\$ 174	ASHRAE 90.1 ETV						
U-Factor SHGC																
Cellings			0.026	0.026												
Frame Walls	\$ 1.32	sq ft of wall	0.057	0.048	\$ 3,403	\$ 3,403	\$ 3,403	\$ 3,403	\$ 3,403	ASHRAE 1481 RP						
Mass Wall			N/A	N/A												
Floors	\$ 0.72	sq ft floor	0.033	0.028	\$ 1,644											
Bsmt Walls	\$ 1.05	sq ft base w	0.059	0.050	\$ 822	\$ 65	\$ 65	\$ 65	\$ 65	ASHRAE 1481 RP						
Slab			10/4	10/4												
Crawl Wall	\$ 1.05	sq ft base w	0.065	0.055	\$ 822	\$ 65	\$ 65	\$ 65	\$ 65	Local Survey						
CFL	\$ 1.00	% cfl	10% (base)	75%	NR	NR	NR	NR	NR	Building America						
Ducts	\$ 800	per house	15% (base)	4cft/100st	\$ 165	\$ 165	\$ 165	\$ 165	\$ 165	Southface						
Blower Door	\$ 165	per house	N/R	Required	\$ 382	\$ 382	\$ 382	\$ 382	\$ 382	Russell (2005)						
Mechanical Ventilator	\$ 382	per house	N/R	Required	\$ 955	\$ 955	\$ 955	\$ 955	\$ 955	ASHRAE 1481 RP						
Air Sealing	\$ 0.41	sq ft floor	N/R	3 ACH 50	\$ 1,676	NR	\$ 165	\$ 165	\$ 165	Southface						
Duct Blaster	\$ 165	per house	N/R	Required	\$ 1,034	\$ 1,034	\$ 1,034	\$ 1,034	\$ 1,034	NAHB RC (2010)						
R-3 Plumbing	\$ 1,034	per house	N/R	R-3	\$ 25	\$ 25	\$ 25	\$ 25	\$ 25	Local Survey						
Prog Thermostat	\$ 25	per house	N/R	Required	\$ 8,568	\$ 7,025	\$ 7,168	\$ 7,168	\$ 7,168							
Incremental Cost																\$ 8,403

Climate Zones 7 & 8 Weighted Average Incremental Cost = \$ 8,403

Coconino County Cost Analysis:
2006 International Energy Conservation Code
2012 International Energy Conservation Code

Prepared by
Peter Moorhouse, Program Asst.
Coconino County Sustainable Building Program
with support from:
Coconino County Building Division
Local Building Professionals

Coconino County Community Development
2500 N. Fort Valley Rd., Building 1
Flagstaff, AZ 86001

June 13, 2013



Introduction

To better understand the financial implications of Coconino County adoption of the 2012 International Energy Conservation Code (IECC), Coconino County Community Development has prepared the following cost estimate. This estimate compares the increased local construction costs associated with compliance with the 2012 IECC over the construction costs associated with compliance with the 2006 IECC. The objective of this document is to outline, item-by-item, the increased costs to builders, and ultimately consumers associated with a forthcoming Coconino County adoption of the 2012 IECC.

Process

This document was produced by the Coconino County Sustainable Building Program in support of Coconino County Building Division's code adoption process. The data for this estimate was collected from the *Craftsman 2013 National Construction Estimator* and from surveys of local building materials and services providers. The Building Division at Coconino County and the Coconino County Sustainable Building Program Citizens' Advisory Committee have reviewed and provided feedback through the development of this document.

This document also seeks to replicate, at a local level, the efforts of NAHB in their 2012 IECC Cost Effectiveness Analysis. NAHB's 2012 IECC Cost Effectiveness Analysis provides a basis for both national and regional comparison to the figures of a Coconino County estimate.

Next Steps

To further refine this document and provide the most accurate information, we will invite review and comment from the Northern Arizona Building Association. As a community of active building experts, building businesses and industry leaders, NABA's feedback will ensure that this cost estimation is up-to-date and accurate for the local community.

Going forward, the Coconino County Sustainable Building Program hopes to work with community partners to estimate the change in mortgage rates with the added costs of 2012 IECC adoption to provide an estimated payback period that also includes utility savings for a localized evaluation on the return on investment.

Notes:

1: Local estimation is based on 2,000sf home with window area 15% (216sf) of wall area (1440sf).

2012 IECC Cost Estimation: Coconino County / Flagstaff

2012 IECC Requirement	Cost		Cost Increase		Source
	2012 IECC	2006 IECC	per unit	2,000 sf house	
R-20 2x6 wall insulation		R-19		1440sf	
R-21, Kraft-faced, 16" OC	\$0.93/sf	\$0.70/sf	\$0.23/sf	\$331	Craftsman Construction Estimator
R-21, Kraft-faced, 24" OC	\$0.86/sf	\$0.68/sf	\$0.18/sf	\$259	Craftsman Construction Estimator
R-21 Cellulose	\$0.55/sf	\$0.50/sf	\$0.05/sf	\$72	Craftsman Construction Estimator
Unfaced batts R-21	\$0.62/sf	\$0.45/sf	\$0.07/sf	\$100	Banker Insulation
R-20.5 Cellulose	\$0.71/sf				Banker Insulation
Avg Local Increase				\$191	
R-13+5 2x4 wall insulation				1440sf	
R-13, Kraft-faced, 16" OC	\$0.48/sf	\$0.48/sf			Craftsman Construction Estimator
R-13, Kraft-faced, 24" OC	\$0.51/sf	\$0.51/sf			Craftsman Construction Estimator
R-13 Batt	\$0.37/sf	\$0.37/sf			Banker Insulation
R-13 Cellulose	\$0.38/sf	\$0.38/sf			Craftsman Construction Estimator
R-5 Insulation Board	\$0.86/sf	\$0.86/sf			Craftsman Construction Estimator
R-49 Ceiling/roof insulation		R-38		2000sf	
R-30 + R-19, Kraft-faced, 24" OC	\$1.68/sf (\$1.00+\$0.68)	\$1.21/sf	\$0.47/sf	\$940	Craftsman Construction Estimator
R-38 + R-11, Kraft-faced, 16" OC	\$1.77/sf (\$1.22+0.55)	\$1.22/sf	\$0.55/sf	\$1,100	Craftsman Construction Estimator
R-30 + R-19	\$1.16/sf	\$0.52/sf	\$0.64/sf	\$680	Banker Insulation
R-49 Cellulose	\$0.72/sf	\$0.52/sf	\$0.20/sf	\$403	Banker Insulation
R-49 Spray Foam	\$4.47/sf	\$3.59/sf	\$0.88/sf	\$1,754	Banker Insulation
Avg Local Increase				\$780^a	
Window fenestration U.32	<U.32	U.35			
3-0 x 5-0, slider		\$278			Local Survey
3-0 x 5-0, casement	\$281		\$3 (\$0.20/sf)	\$43	Local Survey
4-0 x 2-0, awning	\$100	\$83	\$17 (\$2.125/sf)	\$459	Local Survey
5-0 x 4-0, slider	\$162	\$133	\$29 (\$1.45/sf)	\$313	Local Survey
6-0 x 8-0, patio	\$675	\$652	\$23 (\$0.48/sf)	\$104	Local Survey
Avg Local Increase				\$230	
Hot water pipe insulation R-3				(150 pipe ft)	
1/2", R-3.2	\$2.84/lf		\$2.84/lf	\$426	Pex Supply
3/4", R-3.1	\$2.93/lf		\$2.93/lf	\$440	Pex Supply
Avg Local Increase				\$866	
Blower Door Testing/Duct Testing					
E3 Energy, LLC	\$550 - \$750/test		\$550 - \$750/house	\$550 - \$750	E3 Energy, LLC
Avg Local Increase				\$650	
High efficacy lighting					
CFL (estimate does not include use of LED)				\$50	NAHB Analysis
Avg Local Increase				\$50	
Fresh Air Kit					
Fresh Air Kit	\$150			\$150	Local Survey
Avg Local Increase				\$150	
Insulated Attic Hatches					
Gasketing, insulation, etc				\$50	Local Survey
Avg Local Increase				\$50	
Programmable thermostat					
Programmable thermostat	\$25/per house		\$25/per house	\$25	Local Survey
Avg Local Increase				\$25	
Whole house mechanical ventilation					
HRV	\$750 - \$1,000			\$750 - \$1000	Local Survey
Ventilation	\$100			\$100	Local Survey
Avg Local Increase				\$582	
Raised heel trusses					
Western Truss Raised heel trusses	\$4866.12/pkg			\$773.65/pkg	Local Survey
Western Truss Standard trusses		\$4092.47/pkg			
Avg Local Increase				\$774	
			Price increase @ 2,000 sf	\$4,348	

^a : Spray foam not included in avg.

Table 1
2012 Energy Code
Study Comparison

	U.S. DOE	Coconino County	Salt Lake City	NAHB
Areas	Coconino County	Coconino County	Salt Lake City	Zone 2 = Phoenix (Nat'l Avg.)
House Size	2,400 SF	2,000 SF	2,400 SF	2,580 SF
Cost 2006-2012	\$3,925	\$4,348	\$3,815	\$4,499 Zone 2 \$7034 (Nat. Avg.)
Cost Adjusted¹	\$1,695	\$3,136	\$1,585	\$3,869 Zone 2 \$6404 (Nat. Avg.)
Positive Cash Flow²	2 Yrs	-	2 Yrs.	-
Simple Pay Back²	6.4 Yrs.	-	-	8.1 Yrs. Zone 2 11.3 Yrs. (Nat. Avg)

¹For four City amendments

²Not reduced to reflect four City amendments